Project Name: Regional

Project Code: Site ID: T144 Observation ID: 1 REG

Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: G. Smith Locality: .5KM north of T143:1.8KM south of Dillion Creek at

Tandanus on road south of Balfe's Creek:

Date Desc.: 25/08/70 Elevation: No Data Map Ref.: Sheet No.: 8057 1:100000 Rainfall: 610 Northing/Long.: No Data 145.816666666667 Runoff:

Easting/Lat.: Drainage: Imperfectly drained -20.1

Geology

ExposureType: Undisturbed soil core Conf. Sub. is Parent. Mat.: No Data

Geol. Ref.: **Substrate Material:** Undisturbed soil core, 1 m deep, Sandstone

Land Form

Rel/Slope Class: Undulating plains <9m 3-10% Pattern Type: Plain Relief: Morph. Type: Flat 6 metres Slope Category: Gently inclined Elem. Type: Plain 0 % Aspect: No Data Slope:

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A Sodic Petroferric Yellow Kandosol Gn2.21 **Principal Profile Form: ASC Confidence: Great Soil Group:** Yellow earth

All necessary analytical data are available.

<u>Site Disturbance:</u> No effective disturbance other than grazing by hoofed animals

Vegetation:

Mid Strata - Tree, 1.01-3m, Very sparse. *Species includes - Acacia species Tall Strata - Tree, 3.01-6m, Sparse. *Species includes - Eucalyptus melanophloia

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.05 m	Dark greyish brown (10YR4/2-Moist); Light brownish grey (10YR6/2-Dry); ; Sandy clay loam; 5-10 mm, Platy; Massive grade of structure; Dry; Very firm consistence; Few, fine (1-2mm) roots; Clear change to -
A12	0.05 - 0.1 m	Yellowish brown (10YR5/5-Moist); Pale brown (10YR6/3-Dry); , 10YR76, 0-2% , 0-5mm; , 0-2% , 0-5mm; Sandy clay loam (Heavy); 5-10 mm, Platy; Dry; Strong consistence; Few, fine (1-2mm) roots; Gradual change to -
B1	0.1 - 0.2 m	Yellowish brown (10YR5/4-Moist); Very pale brown (10YR7/4-Dry); ; Sandy clay loam (Heavy); Massive grade of structure; Dry; Very firm consistence; Gradual change to -
B2	0.2 - 0.3 m	Brownish yellow (10YR6/5-Moist); ; Sandy clay loam (Heavy); Massive grade of structure; Earthy fabric; Dry; Very firm consistence; Gradual change to -
B2	0.3 - 0.4 m	Brownish yellow (10YR6/5-Moist); , 10YR76, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Sandy clay loam (Heavy); Massive grade of structure; Earthy fabric; Dry; Very firm consistence; Gradual change to -
B2	0.4 - 0.5 m	Brownish yellow (10YR6/5-Moist); , 10YR76, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Sandy clay loam (Heavy); Massive grade of structure; Earthy fabric; Dry; Very firm consistence; Gradual change to -
B2	0.5 - 0.6 m	Brownish yellow (10YR6/5-Moist); , 10YR76, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Sandy clay loam (Heavy); Massive grade of structure; Earthy fabric; Dry; Very firm consistence; Gradual change to -
B2	0.6 - 0.7 m	Brownish yellow (10YR6/5-Moist); , 10YR76, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Sandy clay loam (Heavy); Massive grade of structure; Earthy fabric; Dry; Very firm consistence; Gradual change to -
C1	0.7 - 0.8 m	Brownish yellow (10YR6/5-Moist); , 10YR76, 2-10% , 15-30mm; , 2-10% , 15-30mm; Sandy medium clay; Massive grade of structure; Dry; Very firm consistence; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Gradual change to -

Project Name: Regional

Project Code: Agency Name: REG Site ID: T144 Observation ID: 1

CSIRO Division of Soils (QLD)

 $\label{light-brownish} \begin{tabular}{ll} Light brownish grey (2.5Y6/2-Moist); Sandy medium clay; Massive grade of structure; Very firm consistence; , Ferruginous, , Concretions; Thin ironpan, Concretionary; Gradual change to - \\ \end{tabular}$ 0.8 - 0.9 m

 $\label{light-brownish} \mbox{Light brownish grey (2.5Y6/2-Moist); , 10YR66; Sandy medium clay; Massive grade of structure; Very firm consistence; , Ferruginous, , Nodules; \\$ 0.9 - 1 m

Morphological Notes

Observation Notes

5-10CM MOTTLING ALONG ROOT CHANNELS:80-90CM MASS OF IRON (SUB ROUNDED) CONCERTIONS:

Site Notes

BALFE'S CK

Regional REG Site ID: T144 CSIRO Division of Soils (QLD) Observation ID: 1

Project Name: Project Code: Agency Name:

Laboratory Test Results:													
Depth	pН	1:5 EC	Exc Ca	hangeable Mg	Cations K	Na		angeable	CEC		ECEC		ESP
m		dS/m		_		Cmol	(+)/kg	-					%
								_					
0 - 0.05	6A	0.02A	0.98B	0.59	0.22	0.1		3.7F			5.6F		
0.05 - 0.1	5.8A	0.017A	0.68B	0.46	0.18	0.06		3.7F			5.1F		
0.1 - 0.2	5.5A	0.023A	0.6B	0.42	0.12	0.1		3.7F			4.9F		
0.2 - 0.3	5.5A	0.02A	0.74B	0.65	0.07	0.1		3.7F			5.3F		
0.3 - 0.4	5.5A	0.023A											
0.4 - 0.5	5.7A	0.035A	0.68B	1.3	0.03	0.25		3.8F			6.1F		
0.5 - 0.6	6A	0.038A											
0.6 - 0.7	6.6A	0.032A	0.34B	1.3	0.02	0.32		2.9F			4.9F		
0.7 - 0.8	6.9A	0.035A	0.44B	2.2	0.03	0.76		2.4F			5.8F		
0.8 - 0.9	7.1A	0.032A											
0.9 - 0.98	7A	0.041A											
Depth	CaCO3	Organic	Avail.	Total	Total	Tot		Bulk				Analysi	
	0/	C	Р,	P	N	K		Density	GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%)	Mg/m3			%		
0 - 0.05		0.42D	6.6B	0.008A	0.03	3A 0.	16A		<2	49A	29	7	15
0.05 - 0.1		0.23D	3.1B				16A		<2	49A	26		18
0.1 - 0.2				0.007A			17A		<2	44A	25		23
0.2 - 0.3						-			<2	44A	23		26
0.3 - 0.4										, .		-	_0
0.4 - 0.5				0.006A		0.	15A		3	42A	22	6	30
0.5 - 0.6				0.0007		٠.			Ū	, .		·	
0.6 - 0.7									12	53A	16	5	27
0.7 - 0.8				0.008A		0	14A		14	43A			53
0.8 - 0.9				0.00071		0.	, .		• • •	1071	10	Ū	00
0.9 - 0.98													
Depth	COLE		Grav	vimetric/Vol	umetric W	later Co	ntent	s		K sa	at	K unsa	ıt
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5	Bar 15	Bar		n.		
m				9/9	j - m3/m3	•				mm/	n	mm/h	
0 - 0.05													
0.05 - 0.1													
0.1 - 0.2													
0.2 - 0.3													
0.3 - 0.4													
0.4 - 0.5													
0.5 - 0.6													
0.6 - 0.7													
0.7 - 0.8													
0.8 - 0.9													
0.9 - 0.98													
3.0 0.00													

Project Name: Regional

Project Code: REG Site ID: T144 Observation ID: 1

Agency Name: CSIRO Division of Soils (QLD)

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_FE Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon

15A2_CA Exchangeable bases (Ca2+,Mg2+,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

15G_C Exchange acidity (hydrogen and aluminium) - med per 100g of soil - By 1M KCl exch. acidity by

titration to pH 8.4

15J1 Effective CEC

17A1 Total potassium - X-ray fluorescence

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

9G_BSES Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)

MIN_EC Exchange Capacity - Minerology

P10_CF_C
P10_CF_CS
Clay (%) - Coventry and Fett pipette method
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_II Illite - X-Ray Diffraction

XRD_C_K2O K2O - X-Ray Diffraction or Clay Fraction (air dry)
XRD_C_Ka Kaolin - X-Ray Diffraction

XRD_C_Ka Kaolin - X-Ray Diffraction XRD_C_Qz Quartz - X-Ray Diffraction