Project Name: Regional

Project Code: Site ID: T119 Observation ID: 1 REG

Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: Date Desc.: Locality: G. Smith 8.6KM north east of Laura along old railway line:

Elevation: 04/07/70 No Data Map Ref.: Sheet No.: 7767 1:100000 Rainfall: 920

Northing/Long.: 144.5 Runoff: Moderately rapid -15.05 Drainage: No Data

Easting/Lat.:

Geology

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

Land Form

Rel/Slope Class: Undulating rises 9-30m 3-10% Pattern Type: Rises Morph. Type: Elem. Type: Relief: 24 metres Plain Slope Category: Gently inclined No Data Slope: <1 % Aspect:

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A Ferric Magnesic Red Kandosol **Principal Profile Form:** Gn2.14 **ASC Confidence: Great Soil Group:** Red earth

All necessary analytical data are available.

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Mid-dense. *Species includes - Panicum species, Heteropogon triticeus

Tall Strata - Tree, 12.01-20m, Sparse. *Species includes - Eucalyptus tetrodonta, Eucalyptus polycarpa

Surface Coarse Fragments: No surface coarse fragments

Profile Morpholo	av
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A1	0 - 0.1 m	Reddish brown (5YR4/4-Moist); Brown (7.5YR5/4-Dry); ; Sand; Single grain grade of structure; Loose consistence; Gradual change to -
A2	0.1 - 0.2 m	Dark red (2.5YR3/6-Moist); Reddish yellow (5YR6/6-Dry); ; Sand; Single grain grade of structure; Loose consistence; Gradual change to -
B1	0.2 - 0.3 m	Dark red (2.5YR3/6-Moist); Red (2.5YR5/6-Dry); ; Sand; Single grain grade of structure; Firm consistence; Gradual change to -
B1	0.3 - 0.5 m	Dark red (2.5YR3/8-Moist); Red (2.5YR4/8-Dry); ; Sand (Heavy); Massive grade of structure; Firm consistence; Gradual change to -
B1	0.5 - 0.6 m	Red (10R4/8-Moist); Red (10R4/8-Dry); ; Sandy loam; Massive grade of structure; Earthy fabric; Firm consistence; Gradual change to -
B21	0.6 - 0.7 m	Red (10R4/8-Moist); Red (10R4/8-Dry); ; Sandy clay loam; Massive grade of structure; Earthy fabric; Firm consistence; Very few (0 - 2 %), Argillaceous, , Nodules; Gradual change to -
B21	0.7 - 0.8 m	Red (10R4/8-Moist); Red (10R4/8-Dry); ; Sandy clay loam (Heavy); Massive grade of structure; Earthy fabric; Firm consistence; Very few (0 - 2 %), Argillaceous, , Nodules; Gradual change to -
B21	0.8 - 0.9 m	Red (10R4/8-Moist); Red (10R4/8-Dry); ; Clay loam; Massive grade of structure; Earthy fabric; Strong consistence; Few (2 - 10 %), Argillaceous, , Nodules; Gradual change to -
B22	0.9 - 1.2 m	Red (10R4/8-Moist); Red (10R4/8-Dry); ; Light clay; Massive grade of structure; Earthy fabric; Strong consistence; Common (10 - 20 %), Argillaceous, , Nodules; Gradual change to -
B22	1.2 - 1.5 m	Red (10R4/8-Moist); Red (10R4/8-Dry); ; Light clay; Massive grade of structure; Earthy fabric; Strong consistence; Gradual change to -
B22	1.5 - 1.8 m	Red (10R4/8-Moist); Red (10R4/8-Dry); , 5YR66, 0-2%; , 0-2%; Light clay; Massive grade of structure; Earthy fabric; Very strong consistence; Gradual change to -
	1.8 - 2.1 m	Red (10R4/8-Moist); Red (10R4/8-Dry); ; Clay loam (Heavy); Massive grade of structure; Earthy fabric; Very strong consistence; Gradual change to -

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> Red (10R4/8-Moist); Red (10R4/8-Dry); ; Clay loam (Heavy); Massive grade of structure; Earthy fabric; Very strong consistence; Gradual change to -2.1 - 2.4 m

Red (10R4/8-Moist); Red (10R4/8-Dry); ; Clay loam; Massive grade of structure; Earthy fabric; Firm consistence; Very few (0 - 2%), Argillaceous, , Nodules; Gradual change to -2.4 - 2.7 m

2.7 - 3 m Red~(10R4/8-Moist);~Red~(10R4/8-Dry);~;~Sandy~clay~loam;~Massive~grade~of~structure;~Earthy

fabric; Weak consistence; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules; Clear

change to -

3 - 3.3 m Red (10R4/8-Moist); Red (10R4/8-Dry); , 5YR66, 10-20% , 5-15mm; , 10-20% , 5-15mm; Sandy

clay loam; Massive grade of structure; Earthy fabric; Weak consistence; 2-10%, subrounded, Quartz, coarse fragments; Many (20 - 50 %), Ferruginous, , Nodules; Clear change to -

3.3 - 3.4 m Red (10R4/6-Moist); , 5YR66, 10-20% , 15-30mm, Prominent; , 10-20% , 15-30mm, Prominent;

Sandy clay loam; Massive grade of structure; Earthy fabric; Very strong consistence; Clear

change to -

Morphological Notes

Observation Notes

LAYERS RENUMBERED 22-9-92

Site Notes

LAURA

Regional REG Site ID: T119 CSIRO Division of Soils (QLD) Observation ID: 1

Project Name: Project Code: Agency Name:

Depth Depth	рН	1:5 EC		hangeable				hangeable	CEC	ı	ECEC		ESP
m		dS/m	Ca	Mg	К	Na Cmol		Acidity					%
0 - 0.1 0.1 - 0.2 0.2 - 0.3	6.2A 6.3A 6.4A	0.011	A 0.64B A 0.34B	1.1 0.68 0.62	0.1 0.09 0.09	0.08 0.09 0.09							
0.3 - 0.5 0.5 - 0.6 0.6 - 0.7 0.7 - 0.8 0.8 - 0.9	6.4A 6.5A 6.4A 6.5A 6.4A	0.02 <i>A</i> 0.014 0.014	A 0.14B A A A	1.2	0.15	0.11							
0.9 - 1.2 1.2 - 1.5 1.5 - 1.8 1.8 - 2.1 2.1 - 2.4 2.4 - 2.7	6.4A 6.5A 6.4A 6.5A 6.5A 6.4A	0.017 0.017 0.014 0.014 0.014 0.017	A A 0.1B A 0.14B A	3.1 2.8	0.19 0.18	0.16 0.22							
2.7 - 3 3 - 3.3 3.3 - 3.4	6.4A 6.4A 6.6A	0.017 0.014 0.014	A A										
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	To:		Bulk Density	Pa GV	rticle CS	Size /	Analysis Silt	
m	%	%	mg/kg	%	%	%		Mg/m3			%		
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.5		0.59D 0.29D	7.3B	0.004A 0.003A		-	.04A .05A		0 0 0	41A 40A 43A 38A	52 52 48 51	3 4 3 3	4 4 5 8
0.5 - 0.6 0.6 - 0.7 0.7 - 0.8 0.8 - 0.9 0.9 - 1.2				0.011A		0	.21A		0 0 0	31A 16A 24A	48 48 38	3 4 3	18 32 31
1.2 - 1.5 1.5 - 1.8 1.8 - 2.1 2.1 - 2.4 2.4 - 2.7				0.015A	\	0	.31A		<2 <2 <2	28A 19A 23A 24A	26 26 29 30	3 3 3	48 52 45 42
2.7 - 3 3 - 3.3 3.3 - 3.4				0.016A		0	.34A		30	31A	28	7	34
Depth	COLE	Sat.	Grav 0.05 Bar	imetric/Vo 0.1 Bar	lumetric V 0.5 Bar	Vater Co		ts 5 Bar 15 I	Rar	K sa	t	K unsa	t
m		Jai.	v.vs bal		g - m3/m		•	, Jai 13 l	Jai	mm/	h	mm/h	
0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.5 0.5 - 0.6 0.6 - 0.7 0.7 - 0.8													

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0.8 - 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 - 3.4

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Laboratory Analyses Completed for this profile

10A1 Total sulfur - X-ray fluorescence

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

17A1 Total potassium - X-ray fluorescence EC of 1:5 soil/water extract 3A1 4A1 pH of 1:5 soil/water suspension

6A1_UC Organic carbon (%) - Uncorrected Walkley and Black method

Total nitrogen - semimicro Kjeldahl, automated colour 7A2

Total phosphorus - X-ray fluorescence 9A1

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

MIN_EC

Exchange Capacity - Minerology
Clay (%) - Coventry and Fett pipette method P10_CF_C P10_CF_CS P10_CF_FS P10_CF_Z Coarse sand (%) - Coventry and Fett pipette method Fine sand (%) - Coventry and Fett pipette method Silt (%) - Coventry and Fett pipette method

P10_GRAV Gravel (%)

XRD_C_Hm XRD_C_II Hematite - X-Ray Diffraction Illite - X-Ray Diffraction

XRD_C_ls XRD_C_K2O Interstratified clay minerals - X-Ray Diffraction K2O - X-Ray Diffraction or Clay Fraction (air dry)

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