

Project Name: Regional
Project Code: REG **Site ID:** T408 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	M.G. Cannon	Locality:	1KM N.N.E. of Caravan Hill yards:
Date Desc.:	01/12/84	Elevation:	20 metres
Map Ref.:	Sheet No. : 8061 1:100000	Rainfall:	2389
Northing/Long.:	145.827222222222	Runoff:	Rapid
Easting/Lat.:	-18.0125	Drainage:	Well drained

Geology

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

Land Form

Rel/Slope Class:	Undulating rises 9-30m 3-10%	Pattern Type:	Rises
Morph. Type:	Ridge	Relief:	15 metres
Elem. Type:	Hillcrest	Slope Category:	Gently inclined
Slope:	5 %	Aspect:	20 degrees

Surface Soil Condition (dry): Hardsetting

Erosion: No sheet erosion (sheet)

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Melacic Dystrophic Red Kandosol		Principal Profile Form:	Gn2.11
ASC Confidence:		Great Soil Group:	Red earth

All necessary analytical data are available.

Site Disturbance: Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation: Low Strata - , , . *Species includes - None recorded
Tall Strata - Tree, 12.01-20m, Isolated plants. *Species includes - Melaleuca species

Surface Coarse Fragments:

Profile Morphology

Ap	0 - 0.1 m	Dark brown (7.5YR3/2-Moist); ; Sandy clay loam; Weak grade of structure, 2-5 mm, Cast; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Many, medium (2-5mm) roots; Diffuse, Wavy change to -
Ap	0.1 - 0.2 m	Dark brown (7.5YR3/2-Moist); ; Sandy clay loam; Weak grade of structure, 2-5 mm, Cast; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Many, medium (2-5mm) roots; Diffuse, Wavy change to -
A3	0.2 - 0.3 m	Dark brown (7.5YR3/4-Moist); ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Common, medium (2-5mm) roots; Diffuse, Irregular change to -
B1	0.3 - 0.45 m	Reddish brown (5YR4/4-Moist); ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Common, fine (1-2mm) roots;
B1	0.45 - 0.6 m	Reddish brown (5YR4/4-Moist); ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very few (0 - 2 %), Ferruginous, Coarse (6 - 20 mm), Soft segregations; Few, fine (1-2mm) roots; Diffuse, Irregular change to -
B21	0.6 - 0.9 m	Red (10R4/8-Moist); ; Sandy medium clay (Light); Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Few, fine (1-2mm) roots;
B21	0.9 - 1.2 m	Red (10R4/8-Moist); ; Sandy medium clay (Light); Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Few, fine (1-2mm) roots;
B21	1.2 - 1.5 m	Red (10R4/8-Moist); ; Sandy medium clay (Light); Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Few, very fine (0-1mm) roots; Diffuse, Wavy change to -

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B22	1.5 - 1.8 m	Red (10R5/8-Moist); ; Sandy medium clay; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm ²) Fine (1-2mm) macropores, Moderately moist; 2-10%, coarse gravelly, 20-60mm, angular, dispersed, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Diffuse, Wavy change to -
B23	1.8 - 2.05 m	Red (10R5/8-Moist); , 10R68, 10-20% , 15-30mm, Faint; , 10-20% , 15-30mm, Faint; Sandy medium clay; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm ²) Fine (1-2mm) macropores, Moderately moist; 2-10%, coarse gravelly, 20-60mm, angular, dispersed, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct;

Morphological Notes

Observation Notes

FINER TEXTURES <2MM IN UPPER 150CM TYSON FINE VAR.

Site Notes

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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 Cmol (+)/kg	Acidity		%
0 - 0.1	5.4A	0.048A	0.87H	0.55	0.22	0.06	1.64F	2.7A 10C	2.22 0.60
0.1 - 0.2	5.3A	0.023A							
0.2 - 0.3	5.1A	0.015A	0.09H	0.05	0.02	0.03	1.67F	1.8A 5C	1.67 0.60
0.3 - 0.45	5.1A	0.015A							
0.45 - 0.6	5.1A	0.016A	0.03H	0.02	<0.02	0.02	1.56F	1.5A 4C	1.33 0.50
0.6 - 0.9	5.1A	0.01A							
0.9 - 1.2	5.3A	0.015A	0.07H	0.03	<0.02	0.02	1.4F	1A 2C	2.00 1.00
1.2 - 1.5	5.4A	0.014A							
1.5 - 1.8	5A	0.018A	0.07H	0.08	<0.02	0.02	0.11F	0.9A 1C	2.22 2.00
1.8 - 2.05	5.4A	0.012A							

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		4.19C	83B	0.055A	0.17A	0.05A		1	46A	23	5	26
0.1 - 0.2								1	48A	19	5	28
0.2 - 0.3		1.55C	8B	0.019A	0.06A	0.04A		4	44A	22	3	31
0.3 - 0.45								2	44A	22	3	31
0.45 - 0.6		0.84C	2B	0.017A	0.05A	0.02A		4	43A	21	3	32
0.6 - 0.9								2	41A	20	2	37
0.9 - 1.2		0.22C		0.019A	0.03A	0.02A		7	38A	22	2	37
1.2 - 1.5								9	42A	19	2	37
1.5 - 1.8		0.12C	1B	0.014A	0.01A	0.02A		12	45A	17	2	36
1.8 - 2.05								11	45A	16	1	38

[illegible]

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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/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_CEC	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
15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) by compulsive exchange, no pretreatment for soluble salts
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
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
6B3	Total organic carbon - high frequency induction furnace, infrared
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
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 (%)