

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** T528 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M.G. Cannon	Locality:
Date Desc.: 10/12/91	Elevation: 260 metres
Map Ref.: Sheet No. : 8256 GPS	Rainfall: No Data
Northing/Long.: 7721700 AMG zone: 55	Runoff: Very slow
Easting/Lat.: 477597 Datum: AGD66	Drainage: Rapidly drained

Geology

Exposure Type: No Data	Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: Tu	Substrate Material: Undisturbed soil core, No Data

Land Form

Rel/Slope Class: Undulating plains <9m 3-10%	Pattern Type: Plain
Morph. Type: Flat	Relief: No Data
Elem. Type: Plain	Slope Category: Level
Slope: 1 %	Aspect: No Data

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Haplic Dystrophic Red Kandosol Medium Non-gravelly Sandy Clay-loamy Very deep	Principal Profile Form: Gn2.15
ASC Confidence:	Great Soil Group: Red earth

Analytical data are incomplete but reasonable confidence.

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

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Sparse. *Species includes - Aristida species, Phynchelytrum repens, Chrysopogon fallax Mid Strata - Tree, 1.01-3m, Closed or dense. *Species includes - Acacia torulosa, Terminalia oblongata

Tall Strata - Tree, 6.01-12m, Isolated plants. *Species includes - Eucalyptus polycarpa

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.07 m	Very dark greyish brown (10YR3/2-Moist); ; Loamy sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; , Calcareous, , , Gypseous, , ; Field pH 6.5 (Raupach, 0.05); Common, fine (1-2mm) roots; Gradual change to -
A12	0.07 - 0.18 m	Dark brown (10YR3/3-Moist); ; Loamy sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; , Calcareous, , , Gypseous, , ; Field pH 6.5 (Raupach, 0.15); Common, fine (1-2mm) roots; Gradual change to -
A21	0.18 - 0.36 m	Brown (7.5YR5/3-Moist); ; Sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Very weak consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , , Gypseous, , ; Field pH 7 (Raupach, 0.3); Few, very fine (0-1mm) roots; Diffuse change to -
A22	0.36 - 0.54 m	Reddish brown (5YR5/4-Moist); ; Sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , , Gypseous, , ; Field pH 7 (Raupach, 0.4); Few, very fine (0-1mm) roots; Gradual change to -
B11	0.54 - 0.64 m	Red (10R4/6-Moist); ; Clayey coarse sand; Massive grade of structure; Earthy fabric; Dry; Weak consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , , Gypseous, , ; Field pH 7 (Raupach, 0.6); Few, very fine (0-1mm) roots; Diffuse change to -
B12	0.64 - 0.8 m	Red (10R4/8-Moist); ; Coarse sandy loam; Massive grade of structure; Earthy fabric; Dry; Weak consistence; 2-10%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , , Gypseous, , ; Field pH 7 (Raupach, 0.7); Few, very fine (0-1mm) roots; Diffuse change to -
B12	0.8 - 1.1 m	Red (10R4/8-Moist); ; Coarse sandy loam; Massive grade of structure; Earthy fabric; Dry; Firm consistence; 2-10%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , , Gypseous, , ; Field pH 6.5 (Raupach, 1); Few, very fine (0-1mm) roots; Diffuse change to -

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B21 1.1 - 1.4 m Red (10R4/6-Moist); ; Coarse sandy clay loam (Light); Massive grade of structure; Earthy fabric; Dry; Firm consistence; 10-20%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 1.3); Few, very fine (0-1mm) roots;

Morphological Notes

Observation Notes

DLR1034

Site Notes

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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 - 0.07	6.04A	0.05A	2.3B	0.66	0.2	0.05		2.9I		1.72
			2.04J	0.62	0.06	0.02				0.69
0.07 - 0.18	6.32A	0.02A								
0.18 - 0.36	6.58A	0.01A								
0.36 - 0.54	6.57A	0.01A	0.67B	0.28	0.12	0.04		0.2I		20.00
			0.47J	0.12		0.02				10.00
0.64 - 0.8	6.66A	0.01A								
0.8 - 1.1	6.32A	0.01A								
1.1 - 1.4	6.39A	0.01A	0.98J	0.47	0.02	0.02		2.7D		0.74
								2.3I		0.87

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 - 0.07		1.3B		0.012A	0.02A	0.058A			79A	14	3	3
0.07 - 0.18												
0.18 - 0.36												
0.36 - 0.54		0.1B		0.009A	0.01A	0.048A			77A	17	2	3
0.64 - 0.8												
0.8 - 1.1												
1.1 - 1.4									63A	17	3	17

[illegible]

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
10B	Extractable sulfur(mg/kg) - Phosphate extractable sulfur
12A1_CU	DTPA - extractable copper, zinc, manganese and iron
12A1_FE	DTPA - extractable copper, zinc, manganese and iron
12A1_MN	DTPA - extractable copper, zinc, manganese and iron
12A1_ZN	DTPA - extractable copper, zinc, manganese and iron
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
15D2_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; automatic extractor
15F1_CA	Exchangeable bases by 0.01M silver-thiourea (AgTU)+, no pretreatment for soluble salts
15F1_K	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_MG	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_NA	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F3	CEC by 0.01M silver-thiourea (AgTU)+
15N1	Exchangeable sodium percentage (ESP)
17A1	Total potassium - X-ray fluorescence
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
6B2	Total organic carbon - high frequency induction furnace, volumetric
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
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