

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** T504 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M.G. Cannon
Date Desc.: 03/12/91
Map Ref.: Sheet No. : 8357 GPS
Northing/Long.: 7745198 AMG zone: 55
Easting/Lat.: 500605 Datum: AGD66
Locality:
Elevation: 214 metres
Rainfall: No Data
Runoff: Moderately rapid
Drainage: Well drained

Geology

Exposure Type: No Data
Geol. Ref.: Odr
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Undisturbed soil core, 0.7 m deep, Granite

Land Form

Rel/Slope Class: Undulating plains <9m 3-10%
Morph. Type: Mid-slope
Elem. Type: Hillslope
Slope: 5 %
Pattern Type: Rises
Relief: No Data
Slope Category: Gently inclined
Aspect: 220 degrees

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:
Haplic Eutrophic Red Chromosol Thick Non-gravelly Sandy
Clayey Moderately deep
Mapping Unit: N/A
Principal Profile Form: Dr2.22
ASC Confidence:
Analytical data are incomplete but reasonable confidence.
Great Soil Group: Non-calcic brown soil

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

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Mid-dense. *Species includes - Bothriochloa pertusa, Heteropogon contortus

Mid Strata - , , . *Species includes - None recorded

Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus erythrophloia, Eucalyptus crebra,

Eucalyptus

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.1 m	Dark brown (7.5YR3/3-Moist); ; Loamy sand; Massive grade of structure; Earthy fabric; Moderately moist; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.05); Many, medium (2-5mm) roots; Gradual, Smooth change to -
A12	0.1 - 0.2 m	Brown (7.5YR4/4-Moist); ; Coarse sandy loam; Massive grade of structure; Earthy fabric; Moderately moist; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 0.15); Few, fine (1-2mm) roots; Gradual, Smooth change to -
A	0.2 - 0.32 m	Reddish brown (5YR4/4-Moist); ; Sandy loam; Massive grade of structure; Earthy fabric; Dry; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.25); Clear, Smooth change to -
B1	0.32 - 0.46 m	Red (2.5YR4/6-Moist); ; Sandy light medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 2-5 mm, Subangular blocky; Earthy fabric; Dry; Firm consistence; 2-10%, medium gravelly, 6-20mm, rounded tabular, dispersed, Granite, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.35); Clear, Smooth change to -
B2	0.46 - 0.74 m	Red (10R4/6-Moist); ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Dry; Very firm consistence; 0-2%, medium gravelly, 6-20mm, rounded tabular, dispersed, Granite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; , Calcareous, , ; , Gypseous, , ; Field pH 7.5 (Raupach, 0.6); Clear, Smooth change to -
C	0.74 - 0.86 m	; Dry; Loose consistence; 2-10%, medium gravelly, 6-20mm, angular, dispersed, Granite, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 8 (Raupach, 0.8);

Morphological Notes

Observation Notes

DLR 1010: OTHER GROUND COVER - FLANNELWEEDS.

Site Notes

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.1	6.37A	0.03A	3.1B 4.11J	1.7 1.29	1.7 0.37	0.91		5.5I		16.55
0.1 - 0.2	6.74A	0.01A								
0.2 - 0.32	6.51A	0.02A								
0.32 - 0.46	7.04A	0.01A								
0.46 - 0.74	6.14A	0.01A	6.2B 9.47J	3.6 4.43	1.3 0.11	0.38 0.05		13.9D 15.2I		2.73 2.50 0.36 0.33
0.74 - 0.86	6.76A	0.01A	9B 6.54J	4.8 2.77	0.82 0.13	0.38 0.05		9.9I		3.84 0.51

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		0.8B		0.037A	0.03A	2.03A			41A	40	9	10
0.1 - 0.2												
0.2 - 0.32												
0.32 - 0.46												
0.46 - 0.74		0.3B		0.026A	0.02A	1.41A			18A	22	9	51
0.74 - 0.86		0.1B							42A	26	11	21

[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