

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** T511 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By:	M.G. Cannon	Locality:	
Date Desc.:	04/12/91	Elevation:	325 metres
Map Ref.:	Sheet No. : 8258 GPS	Rainfall:	No Data
Northing/Long.:	7788915 AMG zone: 55	Runoff:	Rapid
Easting/Lat.:	468817 Datum: AGD66	Drainage:	Moderately well drained

Geology

Exposure Type:	No Data	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Odr	Substrate Material:	Undisturbed soil core, 0.3 m deep, 0.06-2mm mm, Slightly porous, , Granodiorite

Land Form

Rel/Slope Class:	Undulating plains <9m 3-10%	Pattern Type:	Plain
Morph. Type:	Upper-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	Gently inclined
Slope:	4 %	Aspect:	300 degrees

Surface Soil Condition (dry): Hardsetting

Erosion: 2 m² m; 2 m, 90 m;

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Haplic Eutrophic Brown Chromosol Thin Non-gravelly Clay-loamy Clayey Very shallow		Principal Profile Form:	Db1.12
ASC Confidence:		Great Soil Group:	Non-calcic brown soil
All necessary analytical data are available.			

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

Vegetation: Low Strata - Tussock grass, <0.25m, Sparse. *Species includes - Bothriochloa pertusa
Mid Strata - , , . *Species includes - None recorded
Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus erythrophloia, Eucalyptus crebra

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.02 m	Dark brown (7.5YR3/4-Moist); ; Sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Very weak consistence; , Calcareous, , , , Gypseous, , , Field pH 6.5 (Raupach, 0.02); Abrupt, Smooth change to -
B2	0.02 - 0.15 m	Dark brown (7.5YR3/3-Moist); ; Light clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Dry; Very firm consistence; , Calcareous, , , , Gypseous, , , Field pH 6.5 (Raupach, 0.1);
BC	0.15 - 0.3 m	Dark brown (7.5YR3/4-Moist); ; Clay loam, sandy; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Dry; Firm consistence; 10-20%, medium gravelly, 6-20mm, angular, dispersed, Substrate material, coarse fragments; , Calcareous, , , , Gypseous, , , Field pH 6.5 (Raupach, 0.2);
C1	0.3 - 0.6 m	; 20-50%, medium gravelly, 6-20mm, angular, dispersed, Granite, coarse fragments; , Calcareous, , , , Gypseous, , , Field pH 7 (Raupach, 0.5);
C2	0.6 - 1 m	; 20-50%, medium gravelly, 6-20mm, angular, dispersed, Granite, coarse fragments; , Calcareous, , , , Gypseous, , , Field pH 7 (Raupach, 0.8);

Morphological Notes

Observation Notes

DLR1017; NOT ENOUGH MATERIAL FOR SAMPLE T511.1.

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	Acidity			%
							(+)/kg			
0.02 - 0.15	6.78A	0.14A	13B	4.6	0.71	0.18		15D		1.20
			12.5J	3.61	0.21	0.04		18.3I		0.98
										0.27
										0.22
0.15 - 0.3	7.06A	0.02A								
0.3 - 0.6	7.23A	0.01A	15B	4.3	0.38	0.43				
0.6 - 1	6.83A	0.01A	11.7J	2.49	0.03	0.02		14.4I		0.14

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Particle CS	Size FS	Analysis Silt	Analysis Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0.02 - 0.15	0.1A	0.9B		0.068A	0.04A	1.38A			29A	32	12	28
0.15 - 0.3												
0.3 - 0.6												
0.6 - 1									64A	16	8	11

[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
19A1	Carbonates - rapid titration
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A1	Chloride - 1:5 soil/water extract, potentiometric titration
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