Project Name: **Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD**
Project Code: **DLR** **Site ID:** **T510** **Observation ID:** **1**
Agency Name: **QLD Department of Primary Industries**

Site Information

Desc. By: M.G. Cannon
Date Desc.: 04/12/91
Map Ref.: Sheet No. : 8257 GPS
Northing/Long.: 7763418 AMG zone: 55
Easting/Lat.: 486358 Datum: AGD66
Locality:
Elevation: 292 metres
Rainfall: No Data
Runoff: Very slow
Drainage: Moderately well drained

Geology

ExposureType: No Data
Geol. Ref.: Odr
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Undisturbed soil core, 0.68 m deep,Granodiorite

Land Form

Rel/Slope Class: Gently undulating plains <9m 1-3%
Morph. Type: Flat
Elem. Type: Plain
Slope: 2 %
Pattern Type: Plain
Relief: No Data
Slope Category: Level
Aspect: 220 degrees

Surface Soil Condition (dry): Hardsetting

Erosion: 2 m,90 m;

Soil Classification

Australian Soil Classification:
Haplic Eutrophic Red Chromosol Thin Non-gravelly Clay-loamy Clayey Moderately deep
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Dr2.13
Great Soil Group: Non-calcic brown soil

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

Vegetation:

Low Strata - Tussock grass, <0.25m, Mid-dense. *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

A	0 - 0.07 m	Dark brown (7.5YR3/3-Moist); ; Sandy clay loam; Weak grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 2-5 mm, Subangular blocky; Earthy fabric; Moderately moist; Firm consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.05); Abundant, fine (1-2mm) roots; Clear, Smooth change to -
B1	0.07 - 0.24 m	Dark reddish brown (5YR3/4-Moist); ; Light medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Substrate material, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.15); Few, medium (2-5mm) roots; Gradual, Wavy change to -
B2	0.24 - 0.52 m	Dark red (2.5YR3/6-Moist); ; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Substrate material, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.35); Few, fine (1-2mm) roots; Gradual, Wavy change to -
B/C	0.52 - 0.68 m	Red (2.5YR4/8-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Prismatic; Smooth-ped fabric; Dry; Very firm consistence; 2-10%, fine gravelly, 2-6mm, subrounded, dispersed, Substrate material, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 8.5 (Raupach, 0.6); Few, fine (1-2mm) roots; Gradual, Wavy change to -
C	0.68 - 1.1 m	; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 8.5 (Raupach, 0.8);

Morphological Notes

Observation Notes

DLR1016

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
			Ca	Mg	K	Na	Acidity			
m		dS/m	Cmol (+)/kg							%
0 - 0.07	6.97A	0.03A	9.3B	3.9	1.4	0.2		14.7I		1.36
			9.05J	2.04	0.45	0.01				0.07
0.07 - 0.24	7.22A	0.01A								
0.24 - 0.52	7.46A	0.01A	14B	5.7	0.56	0.27		20.2D		1.34
			13.9J	4.95	0.06	0.04		23I		1.17
										0.20
										0.17
0.52 - 0.68	8.07A	0.01A	14B	5.4	0.43	0.44				
0.68 - 1.1	8.51A	0.04A	9.94J	3.15	0.03	0.06		12.2I		0.49

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.07		1.4B		0.024A	0.06A	1.1A			32A	34	9	26
0.07 - 0.24												
0.24 - 0.52		0.7B		0.02A	0.03A	0.987A			21A	21	8	49
0.52 - 0.68												
0.68 - 1.1									50A	27	9	14

Depth	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	
m		g/g - m3/m3						mm/h	mm/h
0 - 0.07									
0.07 - 0.24									
0.24 - 0.52									
0.52 - 0.68									
0.68 - 1.1									

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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 (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
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