Project Name: **Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD**
Project Code: **DLR** **Site ID:** **T547** **Observation ID:** **1**
Agency Name: **QLD Department of Primary Industries**

Site Information

Desc. By: M.G. Cannon
Date Desc.: 03/03/92
Map Ref.: Sheet No. : 8256 GPS
Northing/Long.: 7728132 AMG zone: 55
Easting/Lat.: 452080 Datum: AGD66
Locality:
Elevation: 260 metres
Rainfall: No Data
Runoff: Slow
Drainage: Imperfectly drained

Geology

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

Land Form

Rel/Slope Class: Gently undulating rises 9-30m 1-3%
Morph. Type: Mid-slope
Elem. Type: Fan
Slope: 3 %
Pattern Type: Hills
Relief: No Data
Slope Category: Very gently sloped
Aspect: 90 degrees

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification:
Mesotrophic Mottled-Subnatric Grey Sodosol Thick Non-gravelly Sandy Clayey Very deep
Mapping Unit: N/A
Principal Profile Form: Dy3.42
ASC Confidence:
All necessary analytical data are available.
Great Soil Group: Gleyed podzolic 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 - Chrysopogon fallax, Aristida species, Echinochloa species Mid Strata - Shrub, 0.51-1m, Mid-dense. *Species includes - Acacia torulosa, Eucalyptus platyphylla, Petalostigma banksii

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

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.08 m	Brown (10YR5/3-Moist); ; Loamy sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 0.05); Clear change to -
A12	0.08 - 0.24 m	Yellowish brown (10YR5/6-Moist); ; Clayey sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.2); Diffuse change to -
A2e	0.24 - 0.6 m	Brownish yellow (10YR6/6-Moist); ; Clayey sand; Single grain grade of structure; Sandy (grains prominent) fabric; Dry; Loose consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 0.4); Clear change to -
B1	0.6 - 0.82 m	Yellowish brown (10YR5/4-Moist); Mottles, 10YR68, 10-20% , 5-15mm, Prominent; Mottles, 10-20% ; Coarse sandy loam (Heavy); Massive grade of structure; Earthy fabric; Dry; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.7); Abrupt change to -
B21	0.82 - 1.2 m	Greyish brown (10YR5/2-Moist); Mottles, 10YR68, 2-10% , 5-15mm, Prominent; Mottles, 2-10% ; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Dry; Very firm consistence; 2-10%, medium gravelly, 6-20mm, subrounded, dispersed, Sandstone, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 1); Diffuse change to -
B22	1.2 - 1.5 m	Greyish brown (10YR5/2-Moist); Mottles, 10YR68, 2-10% , 5-15mm, Prominent; Mottles, 2-10% ; Medium clay; Strong grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Dry; Strong consistence; 0-2%, coarse gravelly, 20-60mm, subrounded, dispersed, Sandstone, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, prominent; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 1.4); Diffuse change to -

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B23	1.5 - 1.72 m	Greyish brown (10YR5/2-Moist); Mottles, 10YR68, 20-50% , 5-15mm, Prominent; Mottles, 20-50% ; Medium clay; Strong grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Dry; Strong consistence; 2-10%, medium gravelly, 6-20mm, subrounded, dispersed, Sandstone, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 1.65); Diffuse change to -
B24	1.72 - 1.96 m	Yellowish brown (10YR5/6-Moist); Mottles, 10YR68, 10-20% , 5-15mm, Prominent; Mottles, 10-20% ; Fine sandy medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, 2-5 mm, Subangular blocky; Smooth-ped fabric; Dry; Very firm consistence; 20-50%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 1.8);

Morphological Notes

Observation Notes

DLR1053; B HORIZON WEAKLY DISPERSIVE.

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 - 0.08	6.32A	0.01A	0.8B	0.64	0.37	0.1		1.9I		5.26
			0.43J	0.36	0.12	0.02				1.05
0.08 - 0.24	6.06A	0.01A								
0.24 - 0.6	5.7A	0.01A	0.23B	0.5	0.14	0.08				
0.6 - 0.82	6.13A	0.12A	0.24J	2.11	0.05	0.2		5.1I		3.92
0.82 - 1.2	6.16A	0.42A								
1.2 - 1.5	6.26A	0.44A	0.09J	5.33	0.06	1.22		11.4D		10.70
								10.4I		11.73
1.5 - 1.72	7.02A	0.4A								
1.72 - 1.96	7.14A	0.41A	0.03J	4.37	0.04	1.16		8.7I		13.33

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 - 0.08		0.8B			0.03A				49A	42	5	5
0.08 - 0.24												
0.24 - 0.6												
0.6 - 0.82									31A	41	9	18
0.82 - 1.2												
1.2 - 1.5									19A	25	4	51
1.5 - 1.72												
1.72 - 1.96									22A	24	7	47

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 - 0.08									
0.08 - 0.24									
0.24 - 0.6									
0.6 - 0.82									
0.82 - 1.2									
1.2 - 1.5									
1.5 - 1.72									
1.72 - 1.96									

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Laboratory Analyses Completed for this profile

10B	Extractable sulfur(mg/kg) - Phosphate extractable sulfur
12A1_MN	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)
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
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