Project Name: **Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD**
Project Code: **DLR** **Site ID:** **151** **Observation ID:** **1**
Agency Name: **QLD Department of Primary Industries**

Site Information

Desc. By: M. DeCorte
Date Desc.: 17/09/90
Map Ref.: Sheet No. : 8156 GPS
Northing/Long.: 7721654 AMG zone: 55
Easting/Lat.: 428996 Datum: AGD66
Locality:
Elevation: 260 metres
Rainfall: No Data
Runoff: Very rapid
Drainage: Imperfectly drained

Geology

ExposureType: No Data
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: No Data

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: Very gently sloped
Aspect: 0 degrees

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:
Eutrophic Mottled-Subnatric Brown Sodosol Moderately gravelly Clay-loamy Clayey Very deep
Mapping Unit: N/A
Principal Profile Form: Db1.13
ASC Confidence:
All necessary analytical data are available.
Great Soil Group: Solodic soil

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

Vegetation:

Low Strata - Tussock grass, 0.26-0.5m, Sparse. *Species includes - Sporobolus caroli, Eriachne species
Mid Strata - Tree, 1.01-3m, Very sparse. *Species includes - Terminalia oblongata, Acacia harpophylla, Eremophila

Tall Strata - Tree, 6.01-12m, Mid-dense. *Species includes - Acacia harpophylla

Surface Coarse Fragments: 20-50%, coarse gravelly, 20-60mm, rounded tabular, Rhyolite

Profile Morphology

A1	0 - 0.03 m	Dark brown (10YR3/3-Moist); ; Fine sandy clay loam (Light); Massive grade of structure; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Firm consistence; 10-20%, medium gravelly, 6-20mm, angular, dispersed, Rhyolite, coarse fragments; , Calcareous, , ; , Gypseous, , ; Few, very fine (0-1mm) roots;
A3	0.03 - 0.12 m	Dark brown (7.5YR3/4-Moist); ; Light clay; Strong grade of structure, 10-20 mm, Angular blocky; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; 10-20%, coarse gravelly, 20-60mm, rounded tabular, dispersed, Rhyolite, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.05); Few, very fine (0-1mm) roots;
B21	0.12 - 0.7 m	Dark brown (10YR3/3-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 5-10 mm, Angular blocky; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Dry; Strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded tabular, dispersed, Rhyolite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; , Calcareous, , ; , Gypseous, , ; Field pH 8.5 (Raupach, 0.6); Common, fine (1-2mm) roots;
B22c	0.7 - 1.45 m	Brown (10YR4/3-Moist); ; Medium heavy clay; Weak grade of structure, 50-100 mm, Angular blocky; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Strong consistence; 0-2%, medium gravelly, 6-20mm, rounded tabular, dispersed, Rhyolite, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Many (20 - 50 %), Manganiferous, Fine (0 - 2 mm), Veins; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.9);
B23	1.45 - 2 m	Pale brown (10YR6/3-Moist); Mottles, 7.5YR58, 10-20% , 5-15mm, Distinct; Mottles, 10-20% ; Medium clay; Weak grade of structure, 50-100 mm, Angular blocky; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 1.8);

Morphological Notes

Observation Notes

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							%
0.03 - 0.12	6.6A		7.5B	4.6	1.3	0.3				
0.12 - 0.7	7.7A		6.5J	16.2	0.2	3.4		28.7I		11.85
0.7 - 1.45	6.1A		3.4B	15	0.36	8.8		24B		36.67
			3.4E	14	0.32	5.4				22.50
1.45 - 2	5.4A		3.5J	14.2	0.4	4.3		24I		17.92

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			%		
0.03 - 0.12												
0.12 - 0.7												
0.7 - 1.45												
1.45 - 2												

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
0.03 - 0.12									
0.12 - 0.7									
0.7 - 1.45									
1.45 - 2									

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Laboratory Analyses Completed for this profile

10B	Extractable sulfur(mg/kg) - Phosphate extractable sulfur
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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
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)
4A1	pH of 1:5 soil/water suspension