Project Name: **Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD**
Project Code: **DLR** **Site ID:** **T574** **Observation ID:** **1**
Agency Name: **QLD Department of Primary Industries**

Site Information

Desc. By:	M.G. Cannon	**Locality:**	
Date Desc.:	20/08/93	**Elevation:**	No Data
Map Ref.:	Sheet No. : 8058 GPS	**Rainfall:**	No Data
Northing/Long.:	7841930 AMG zone: 55	**Runoff:**	No Data
Easting/Lat.:	366823 Datum: AGD66	**Drainage:**	No Data

Geology

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

Land Form

Rel/Slope Class:	Level plain <9m <1%	**Pattern Type:**	Plain
Morph. Type:	Flat	**Relief:**	No Data
Elem. Type:	Plain	**Slope Category:**	Level
Slope:	1 %	**Aspect:**	No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:
Haplic Mesotrophic Red Kandosol Medium Non-gravelly Loamy Clay-loamy Deep

Mapping Unit: N/A
Principal Profile Form: Gn2.11

ASC Confidence:
All necessary analytical data are available.

Great Soil Group: Red earth

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Sparse. *Species includes - Bothriochloa species, Dichanthium species, Aristida species Mid Strata - Tree, 6.01-12m, Isolated plants. *Species includes - Eucalyptus crebra, Eucalyptus similis

Tall Strata - Tree, 12.01-20m, Isolated plants. *Species includes - Eucalyptus crebra

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.03 m	Dark reddish brown (5YR3/2-Moist); ; Sandy loam; Massive grade of structure; Earthy fabric; Dry; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.02); Clear change to -
A3	0.03 - 0.18 m	Dark reddish brown (2.5YR3/4-Moist); ; Sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.15); Diffuse change to -
B1	0.18 - 0.47 m	Dusky red (10R3/4-Moist); ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.4); Diffuse change to -
B21	0.47 - 0.6 m	Dark red (10R3/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.55);
B22	0.6 - 0.8 m	Dark red (2.5YR3/6-Moist); ; Clay loam (Heavy); Massive grade of structure; Earthy fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.7);
B22	0.8 - 1 m	Dark red (2.5YR3/6-Moist); ; Clay loam (Heavy); Massive grade of structure; Earthy fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.9);
B22	1 - 1.2 m	Dark red (2.5YR3/6-Moist); ; Clay loam (Heavy); Massive grade of structure; Earthy fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 1.1);

Morphological Notes

Observation Notes

Kaylene Site 5

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 - 0.03	5.8C 7A	0.08A	3.9B	1.5	0.53	0.06				
0.03 - 0.18	5.8C 7.1A	0.04A								
0.18 - 0.47	5.7C 7.1A	0.04A								
0.47 - 0.6	5.8C 6.8A	0.03A	2.4B	0.74	0.47	0.04				
0.6 - 0.8	5.9C 6.8A	0.03A								
0.8 - 1	6.2C 6.8A	0.03A								
1 - 1.2	6.4C 6.8A	0.02A	1.8E	1.2	0.32	0.09		5B		1.80

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 - 0.03		0.95A		0.033A	0.05A	0.61A			42A	37	9	12
0.03 - 0.18												
0.18 - 0.47												
0.47 - 0.6		0.24A		0.024A		0.6A			33A	30	6	31
0.6 - 0.8												
0.8 - 1												
1 - 1.2		0.15A							35A	26	5	34

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 - 0.03										
0.03 - 0.18										
0.18 - 0.47										
0.47 - 0.6										
0.6 - 0.8										
0.8 - 1										
1 - 1.2										

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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
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
17A1	Total potassium - X-ray fluorescence
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
5A1	Chloride - 1:5 soil/water extract, potentiometric titration
6A1	Organic carbon - Walkley and Black
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