Project Name: **Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD**
Project Code: **DLR** **Site ID:** **T575** **Observation ID:** **1**
Agency Name: **QLD Department of Primary Industries**

Site Information

Desc. By: M.G. Cannon
Date Desc.: 24/08/93
Map Ref.: Sheet No. : 8058 GPS
Northing/Long.: 7808976 AMG zone: 55
Easting/Lat.: 375332 Datum: AGD66
Locality:
Elevation: 325 metres
Rainfall: No Data
Runoff: No Data
Drainage: No Data

Geology

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

Land Form

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

Surface Soil Condition (dry): Cracking, Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:
Epihypersodic-Endocalcareous Self-Mulching Black Vertosol Gravelly Fine Very fine Very deep
Mapping Unit: N/A
Principal Profile Form: Ug5.16

ASC Confidence:
All necessary analytical data are available.
Great Soil Group: Black earth

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

Vegetation: Low Strata - Tussock grass, <0.25m, Isolated plants. *Species includes - Sporobolus species, Bothriochloa decipiens

Mid Strata - Tree, 1.01-3m, Very sparse. *Species includes - Acacia species, Acacia farnesiana

Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Acacia cana

Surface Coarse Fragments: 10-20%, medium gravelly, 6-20mm, rounded, Quartz

Profile Morphology

A11	0 - 0.03 m	Very dark grey (10YR3/1-Moist); ; Medium clay; Moderate grade of structure, 2-5 mm, Platy; Strong grade of structure, 2-5 mm, Granular; Dry; Firm consistence; 10-20%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 9.5 (Raupach, 0.02);
A12	0.03 - 0.25 m	Very dark greyish brown (10YR3/2-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Subangular blocky; Strong grade of structure, 10-20 mm, Angular blocky; Dry; Very strong consistence; 10-20%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 9.5 (Raupach, 0.2);
A13	0.25 - 0.4 m	Very dark greyish brown (10YR3/2-Moist); ; Medium clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, Subangular blocky; Dry; Very strong consistence; 10-20%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 9.5 (Raupach, 0.35); Clear change to -
B21	0.4 - 0.6 m	Very dark grey (10YR3/1-Moist); ; Medium heavy clay; Moderate grade of structure, 50-100 mm, Subangular blocky; Strong grade of structure, 2-5 mm, Angular blocky; Moderately moist; Strong consistence; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Concretions; , Gypseous, , ; Field pH 9.5 (Raupach, 0.5);
B22	0.6 - 0.91 m	Greyish brown (10YR5/2-Moist); , 10YR31, 20-50% , 5-15mm, Distinct; , 20-50% ; Medium heavy clay; Strong grade of structure, 50-100 mm, Lenticular; Strong grade of structure, 5-10 mm, Angular blocky; Moderately moist; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Concretions; , Gypseous, , ; Field pH 8.5 (Raupach, 0.8);
B23	0.91 - 1.2 m	Greyish brown (10YR5/2-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Strong grade of structure, 5-10 mm, Angular blocky; Moderately moist; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; , Calcareous, , ; , Gypseous, , ; Field pH 8 (Raupach, 1.1);

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B24	1.2 - 1.54 m	Greyish brown (10YR5/2-Moist); Mottles, 10YR56, 2-10% , 0-5mm, Distinct; Mottles, 2-10% ; Medium heavy clay; Strong grade of structure, 20-50 mm, Lenticular; Moderately moist; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 1.4);
	1.54 - 1.8 m	Greyish brown (10YR5/2-Moist); Mottles, 10YR56, 2-10% , 0-5mm, Distinct; Mottles, 2-10% ; Medium heavy clay; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 1.7);

Morphological Notes

Observation Notes

Kaylene Site 6

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	6.4C 7.5A	0.1A	14E	13	0.5	1.1		31B		3.55
0.03 - 0.25	6.7C 7.9A	0.08A								
0.25 - 0.4	7.8C 8.6A	0.65A								
0.4 - 0.6	8C 8.8A	0.89A	9.9E	13	0.23	11		31B		35.48
0.6 - 0.91	8.1C 8.9A	1A								
0.91 - 1.2	7.3C 8.2A	1.1A								
1.2 - 1.54	6.7C 7.8A	1.1A								
1.54 - 1.8	6.2C 7.5A	1.1A								

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		0.48A		0.02A		0.54A			23A	18	17	43
0.03 - 0.25												
0.25 - 0.4												
0.4 - 0.6		0.33A		0.015A		0.058A			23A	17	15	45
0.6 - 0.91												
0.91 - 1.2		0.11A										
1.2 - 1.54												
1.54 - 1.8									10A	13	10	66

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 - 0.25									
0.25 - 0.4									
0.4 - 0.6									
0.6 - 0.91									
0.91 - 1.2									
1.2 - 1.54									
1.54 - 1.8									

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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
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
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