Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD

Project Code: DLR Site ID: T582 Observation ID: 1

Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M.G. Cannon Locality:

Date Desc.: Elevation: 18/08/93 270 metres Map Ref.: Sheet No.: 8157 GPS Rainfall: No Data Northing/Long.: Runoff: 7786855 AMG zone: 55 No Data 427273 Datum: AGD66 Easting/Lat.: Drainage: No Data

Geology

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

Land Form

Rel/Slope Class: Gently undulating rises 9-30m Pattern Type: Rises

1-3%

Morph. Type: Mid-slope Relief: No Data

Elem. Type: Hillslope Slope Category: Very gently sloped

Slope: 2 % Aspect: No Data

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/AHaplic Eutrophic Red Chromosol Medium Non-gravelly LoamyPrincipal Profile Form:Dr2.12

Clayey Moderately deep

ASC Confidence: Great Soil Group: Non-calcic brown

Analytical data are incomplete but reasonable confidence. soil

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Mid-dense. *Species includes - Bothriochloa ewartiana, Heteropogon

contortus,

Chrysopogon fallax Mid Strata - Shrub, 1.01-3m, Isolated plants. *Species includes - Erythroxylon

australe

Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus drepanophylla, Eucalyptus erythrophloia,

Eucalyptus

papuana

Surface Coarse Fragments:

Profile Morphology									
A11	0 - 0.03 m	Dark brown (7.5YR3/3-Moist); ; Sandy loam; Massive grade of structure; Earthy fabric; Dry; Weak consistence; 2-10%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 6.8 (Raupach, 0); Clear change to -							
A12	0.03 - 0.1 m	Dark brown (7.5YR3/3-Moist); ; Sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Firm consistence; 2-10%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.05); Clear change to -							
B1	0.1 - 0.23 m	Dark reddish brown (2.5YR2/4-Moist); ; Light clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Dry; Strong consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.2); Clear change to -							
B21	0.23 - 0.55 m	Dark red (2.5YR3/6-Moist); ; Light medium clay; Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 10-20 mm, Prismatic; Smooth-ped fabric; Dry; Strong consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.5); Clear change to -							
B22	0.55 - 0.73 m	Red (2.5YR4/8-Moist); ; Medium clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm; Smooth-ped fabric; Moderately moist; Strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.7);							
ВС	0.73 - 0.97 m	Yellowish brown (10YR5/4-Moist); Substrate influence, 2.5YR48, 20-50%, 5-15mm, Distinct; Substrate influence, 20-50%; Medium clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm; Smooth-ped fabric; Moderately moist; Strong consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7.5 (Raupach, 0.9);							

Morphological Notes

Observation Notes
Kaylene Site 13

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DLR Site ID: T582
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Laboratory Test Results:

Laboratory												
Depth	рН	1:5 EC		hangeable			xchangeabl	e CEC		ECEC		ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)	Acidity /kg				,	%
0 - 0.03	5.8C 7.8A	0.07A	4.4B	1.5	0.34	0.04						
0.03 - 0.1	5.5C 7.4A	0.06A										
0.1 - 0.23	5.5C 6.8A	0.04A										
0.23 - 0.55	5.6C 6.8A	0.04A	8.5B	2.8	0.44	0.15						
0.55 - 0.73	5.9C 7A	0.03A										
0.73 - 0.97	6.4C 7.6A	0.03A										
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density		article CS	Size FS	Analysis Silt	
m	%	%	mg/kg		%	%	Mg/m3	,		%	•	·,
0 - 0.03 0.03 - 0.1 0.1 - 0.23		0.44A		0.032A	0.0	2A 1.11	A		44A	36	5	15
0.1 - 0.23 0.23 - 0.55 0.55 - 0.73 0.73 - 0.97		0.24A		0.02A	0.0	2A 0.81	A		35A	16	2	47
54	0015								14			
Depth	COLE	Sat.	0.05 Bar	o.1 Bar	olumetric v 0.5 Bar	Nater Cont 1 Bar		15 Bar	K sa	at	K unsat	•
m		ou.	0.00 Dai		/g - m3/m		o Bui	10 Bui	mm/	/h	mm/h	
0 - 0.03 0.03 - 0.1 0.1 - 0.23 0.23 - 0.55 0.55 - 0.73 0.73 - 0.97												

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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

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