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

Project Code: Site ID: T561 Observation ID: 1

Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M.G. Cannon Locality:

Date Desc.: Elevation: 05/03/92 180 metres Map Ref.: Sheet No.: 8256 GPS Rainfall: No Data Northing/Long.: 7691379 AMG zone: 55 Runoff: Moderately rapid 472468 Datum: AGD66 Imperfectly drained Easting/Lat.: Drainage:

Geology

ExposureType: No Data Conf. Sub. is Parent. Mat.: No Data

Geol. Ref.: **Substrate Material:** Undisturbed soil core, 0.9 m deep, Siltstone Cpi

Land Form

Rel/Slope Class: Pattern Type: Gently undulating plains <9m 1-Rises

Mid-slope Morph. Type: Relief: No Data

Elem. Type: Hillslope Slope Category: Very gently sloped

Aspect: Slope: 3 % No Data

Surface Soil Condition (dry): Hardsetting

Erosion: 20 m20 m;3 m,20 m;

Soil Classification

Australian Soil Classification: **Mapping Unit:** N/A Mottled Eutrophic Yellow Chromosol Thick Non-gravelly **Principal Profile Form:** Dy3.32

Sandy Clayey Moderately deep

ASC Confidence: Great Soil Group: No suitable

All necessary analytical data are available.

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

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Sparse. *Species includes - Cyperus species, Aristida species,

Chrysopogon

Mid Strata - Tree, 3.01-6m, Sparse. *Species includes - Eucalyptus shirleyi Tall Strata - Tree, 6.01-12m, Mid-dense. *Species includes - Eucalyptus shirleyi

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11 0 - 0.1 m Dark yellowish brown (10YR4/4-Moist); ; Loamy sand; Massive grade of structure; Earthy fabric; Dry; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.6 (Raupach,

0.05); Clear, Smooth change to -

A31 0.1 - 0.18 m Yellowish brown (10YR5/4-Moist); ; Sandy loam (Light); Massive grade of structure; Earthy

fabric; Dry; Very weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach,

0.15); Gradual, Wavy change to -

A32 0.18 - 0.34 m Brownish yellow (10YR6/6-Moist); ; Sandy loam (Heavy); Massive grade of structure; Earthy

fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.25); Gradual, Wavy change to -

B1i 0.34 - 0.5 m Brownish yellow (10YR6/7-Moist); ; Light clay; Earthy fabric; Dry; Weak consistence; ,

Calcareous, , ; , Gypseous, , ; Field pH 5.8 (Raupach, 0.4); Clear, Wavy change to -

B21 0.5 - 0.7 m Light yellowish brown (2.5Y6/4-Moist); Mottles, 2.5YR58, 20-50%, 0-5mm, Distinct; Mottles, 20-

50%; Medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Strong grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Dry; Very firm consistence; Very few (0 - 2 %), Manganiferous, Fine (0 - 2 mm), Nodules; , Calcareous, , ; , Gypseous, , ; Field pH 6

(Raupach, 0.6); Gradual, Wavy change to -

B22 Olive grey (5Y5/2-Moist); Mottles, 5Y66, 20-50%, 0-5mm, Distinct; Mottles, 20-50%; Medium $0.7 - 0.9 \, \text{m}$

> clay; Strong grade of structure, 5-10 mm, Angular blocky; Strong grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Dry; Very firm consistence; Very few (0 - 2 %). Manganiferous, Fine (0 - 2 mm), Nodules; , Calcareous, , ; , Gypseous, , ; Field pH 6.8

(Raupach, 0.8);

Morphological Notes

Observation Notes

DLR1063; B HORIZON NOT DISPERSIVE; SILTSTONE AT BOTTOM. BOEWA

Site Notes

Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD DLR Site ID: T561 Observation ID: 1 QLD Department of Primary Industries

Project Name: Project Code: Agency Name:

Preliminary Assessment and Survey of Land Degradation in the Dalrypmle Shire, QLD DLR Site ID: T561 Observation ID: 1

DLR Site ID: T561
QLD Department of Primary Industries

Project Name: Project Code: Agency Name:

Laboratory Test Results:

Depth	рН	1:5 EC		hangeable Cations Mg K		Exchangeable Na Acidity		CEC		ECEC		ESP	
m		dS/m	Ca i	wig	N.	Cmol (+)/kg		cidity					%
0 - 0.1	5.87A	0.01A	1.2B 1.5J	1 1.1	0.82 0.15	0.12 0.16			6.51				1.85 2.46
0.1 - 0.18 0.18 - 0.34	5.61A 5.62A	0.01A 0.01A	0.67J	1.12	0.08	0.05			5.91				0.85
0.34 - 0.5 0.5 - 0.7	6.22A 6.89A	0.01A 0.02A	1.6B 4.6B 3.85J	3.2 11 8.53	0.4 0.79 0.05	0.14 0.56 0.19			19.4[18.3				2.89 3.06
			0.000	0.00	0.00	0.10			10.0				0.98 1.04
0.7 - 0.9	7.66A	0.02A											
Depth	CaCO3	Organic C	Avail. P	Total P	Total N		otal K	Bulk Density	Pa GV	rticle CS	Size FS	Analysi Silt	s Clay
m	%	%	mg/kg	%	%	'	%	Mg/m3			%		
0 - 0.1 0.1 - 0.18		0.4B		0.031A	A 0.0	3A 0	.494A			40A	41	11	8
0.18 - 0.34 0.34 - 0.5		0.1B								38A	37	13	12
0.5 - 0.7 0.7 - 0.9	0.1A	0.3B			0.0	4A				16A	18	8	58
Depth	COLE	Sat.	Gravimetric/Volumetric Water Contents K sat K unsat										ıt
m		g/g - m3/m3											

0 - 0.1 0.1 - 0.18 0.18 - 0.34 0.34 - 0.5 0.5 - 0.7 0.7 - 0.9

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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
15A2_MG
15A2_MG
15A2_NA
15D2_CEC
15F1_CA
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; automatic extractor
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)
17A1 Total potassium - X-ray fluorescence

19A1 Carbonates - rapid titration
3A1 EC of 1:5 soil/water extract
4A1 pH of 1:5 soil/water suspension

Total organic carbon - high frequency induction furnace, volumetric

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