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

Project Code: Site ID: 57 Observation ID: 1

Agency Name: **QLD Department of Primary Industries**

Site Information

Desc. By: M. DeCorte Locality:

Date Desc.: Elevation: 23/07/90 345 metres Sheet No.: 8058 GPS Map Ref.: Rainfall: No Data Northing/Long.: 7790340 AMG zone: 55 Runoff: No runoff

371111 Datum: AGD66 Moderately well drained Easting/Lat.: Drainage:

Geology

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

Land Form

Rel/Slope Class: Level plain <9m <1% Pattern Type: Plain Morph. Type: Flat Relief: No Data Elem. Type: Slope Category: Plain Level Aspect: 90 degrees Slope: 1 %

Surface Soil Condition (dry): Hardsetting, Surface crust

Erosion:

Soil Classification

Australian Soil Classification: N/A Mapping Unit: Bleached-Sodic Eutrophic Grev Chromosol Medium Non-Principal Profile Form: Dv2.73

gravelly Clay-loamy Clayey Very deep

ASC Confidence: Solodic soil **Great Soil Group:**

Analytical data are incomplete but reasonable confidence.

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Mid-dense. *Species includes - None recorded

Mid Strata - Tree, 1.01-3m, Isolated plants. *Species includes - Eucalyptus brownii

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

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

Dark greyish brown (10YR4/2-Moist); ; Clay loam; Strong grade of structure, 2-5 mm, Granular; Δ1 0 - 0.12 m Smooth-ped fabric; Moderately moist; Strong consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.05); Few, very fine (0-1mm) roots; Clear, Smooth change to

A2e 0.12 - 0.22 m Dark greyish brown (10YR4/2-Moist); ; Clay loam; Strong grade of structure, 2-5 mm, Granular; Smooth-ped fabric; Moderately moist; Strong consistence; , Calcareous, , ; , Gypseous, , ; Few,

very fine (0-1mm) roots; Abrupt, Smooth change to -

R1 0.22 - 0.48 m Dark grey (10YR4/1-Moist); ; Heavy clay; Weak grade of structure, 50-100 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Strong consistence; , Calcareous, , ; , Gypseous, , ; Field

pH 8.5 (Raupach, 0.3); Few, very fine (0-1mm) roots; Gradual, Smooth change to -

B21k Dark grey (10YR4/1-Moist); ; Heavy clay; Weak grade of structure, 50-100 mm, Angular blocky; 0.48 - 0.8 m

Smooth-ped fabric; Moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm), Nodules; , Gypseous, ,

; Field pH 9 (Raupach, 0.6); Gradual, Smooth change to -

B22 0.8 - 1.05 m Pale brown (10YR6/3-Moist); ; Heavy clay; Weak grade of structure, 50-100 mm, Angular

blocky; Smooth-ped fabric; Moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm),

Nodules; , Gypseous, , ; Field pH 9 (Raupach, 0.9); Abrupt, Smooth change to -

Pale brown (10YR6/3-Moist); ; Heavy clay; Strong grade of structure, 10-20 mm, Angular B23 1.05 - 2.2 m

blocky; Smooth-ped fabric; Moist; Strong consistence; Few cutans, <10% of ped faces or walls

coated, prominent; , Calcareous, , ; , Gypseous, , ; Field pH 4.5 (Raupach, 1.5);

Morphological Notes

Observation Notes

Site Notes

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Laboratory Test Results:

Laboratory	1631 1/6	zauita.								
Depth	pН	1:5 EC		hangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol	(+)/kg			%
0 - 0.12	6.7A		5.1B	4.3	0.24	0.57				
0.22 - 0.48	7.6A									
0.48 - 0.8	8.9A		9.8B	11	0.12	5.1		25B		20.40
			10E	10	0.12	3.8		26.71		19.10
			16J	10.8	0.1	1.5				15.20
										14.23
										6.00
										5.62
0.8 - 1.05	A8		9.3B	10	0.1	5.4		25B		21.60
4.05.00	- ^		9.1E	8.9	0.1	3.8		00.01		15.20
1.05 - 2.2	5A		8.9J	8.6	0.1	2.7		22.21		12.16
Depth	CaCO3	Organic	Avail.	Total	Total	Tot	al Bulk	Particle	Size	Analysis
•		Ċ	Р	Р	N	K	Density	GV CS	FS	Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	_
0 - 0.12										
0.22 - 0.48										
0.48 - 0.8										
0.8 - 1.05										
1.05 - 2.2										
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/m	3		m	m/h	mm/h

0 - 0.12 0.22 - 0.48 0.48 - 0.8 0.8 - 1.05 1.05 - 2.2

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Laboratory Analyses Completed for this profile

10B 15A2_CA	Extractable sulfur(mg/kg) - Phosphate extractable sulfur Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for
15A2_K 15A2_MG 15A2_NA 15C1_CA	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 Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment
15C1_CEC	for soluble salts 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 15F1_K 15F1_MG 15F1_NA 15F3 15N1 4A1	Exchangeable bases by 0.01M silver-thiourea (AgTU)+, no pretreatment for soluble salts Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts CEC by 0.01M silver-thiourea (AgTU)+ Exchangeable sodium percentage (ESP) pH of 1:5 soil/water suspension