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

Project Code: DLR Site ID: 157 Observation ID: 1

Agency Name: QLD Department of Primary Industries

**Site Information** 

Desc. By: M. DeCorte Locality:

Date Desc.:18/09/90Elevation:260 metresMap Ref.:Sheet No.: 8256 GPSRainfall:No DataNorthing/Long.:7723726 AMG zone: 55Runoff:Very rapid

Easting/Lat.: 478439 Datum: AGD66 Drainage: Moderately well drained

Geology

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

Geol. Ref.: No Data Substrate Material: Igneous rock (unidentified)

Land Form

Rel/Slope Class:Undulating rises 9-30m 3-10%Pattern Type:RisesMorph. Type:Mid-slopeRelief:No DataElem. Type:HillslopeSlope Category:Gently inclinedSlope:3 %Aspect:210 degrees

Surface Soil Condition (dry): Hardsetting

**Erosion:** 

**Soil Classification** 

Australian Soil Classification:Mapping Unit:N/AEutrophic Subnatric Red Sodosol Thin Non-gravelly Clay-Principal Profile Form:Dr2.11

Ioamy Clayey Deep

ASC Confidence: Great Soil Group: Solodic soil

Analytical data are incomplete but reasonable confidence.

**<u>Site Disturbance:</u>** No effective disturbance other than grazing by hoofed animals

Vegetation: Low Strata - Tussock grass, <0.25m, Very sparse. \*Species includes - Eragrostis species

Mid Strata - Tree, 1.01-3m, Sparse. \*Species includes - Eremophila mitchellii, Albizia basaltica, Acacia species

Tall Strata - Tree, 6.01-12m, Very sparse. \*Species includes - Eucalyptus brownii

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

**Profile Morphology** 

A1 0 - 0.08 m Reddish brown (5YR4/3-Moist); ; Coarse sandy clay loam; Moderate grade of structure, 20-50

mm, Angular blocky; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; 2-10%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.05); Common, fine (1-2mm) roots; Abrupt, Tongued

change to -

B1 0.08 - 0.3 m Reddish brown (5YR4/4-Moist); ; Light clay; Weak grade of structure, 20-50 mm, Prismatic;

Moderate grade of structure, 20-50 mm, Angular blocky; Many (>5 per 100mm2) Medium (2-5mm) macropores, Dry; Strong consistence; 0-2%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, prominent; , Calcareous, , ; , Gypseous, , ; Field pH 7.5 (Raupach, 0.3); Few, very fine (0-1mm) roots; Clear, Tongued change

to -

B21 0.3 - 0.62 m Reddish brown (5YR4/4-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Angular

blocky; Strong grade of structure, 5-10 mm, Angular blocky; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Strong consistence; 0-2%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Many cutans, >50% of ped faces or walls coated, prominent; Calcareous, ; Gypseous, ; Field pH 7 (Raupach, 0.6); Few, very fine (0-1mm) roots; Abrupt, Smooth change

to -

B22c 0.62 - 0.75 m Reddish brown (5YR4/4-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Angular

blocky; Strong grade of structure, 10-20 mm, Angular blocky; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Strong consistence; 0-2%, fine gravelly, 2-6mm, angular, Quartz, coarse fragments; Many cutans, >50% of ped faces or walls coated, prominent; Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Veins; , Calcareous, , ; , Gypseous, , ;

Abrupt, Smooth change to -

B23 0.75 - 1.15 m Reddish brown (5YR4/4-Moist); ; Medium clay; Strong grade of structure, 10-20 mm, Angular

blocky; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Strong consistence; Many cutans, >50% of ped faces or walls coated, prominent; , Calcareous, , ; , Gypseous, , ;

Field pH 5 (Raupach, 0.9); Abrupt, Smooth change to -

C 1.15 - 1.45 m ; , Calcareous, , ; , Gypseous, , ; Field pH 5.7 (Raupach, 1.45);

**Morphological Notes** 

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**Observation Notes** 

Site Notes

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## **Laboratory Test Results:**

Depth Depth	рН	1:5 EC		hangeable			changeable	CEC	ECEC	ESP
m		dS/m	Са	Mg	K	Na Cmol (+)/l	Acidity (g			%
0 - 0.08	6.6A		11B 5.9E 5.5J	10 5.1 2	0.35 0.29 0.1	11 1 0.5		19B 6.8I		57.89 161.76 5.26 14.71
0.08 - 0.3 0.3 - 0.62 0.75 - 1.15	6.8A 6.7A 4.7A		3.2J 2.5E 2.8B 1.9E	3.9 2.7 3.4 2.3	0 0.03 0.09 0.05	0.4 1.7 9 1.6		6.9l 13B 13B		2.63 7.35 5.80 13.08 69.23 12.31
1.15 - 1.45	4.1A				0.00					.2.0
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Part GV (	icle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	
0 - 0.08 0.08 - 0.3 0.3 - 0.62 0.75 - 1.15 1.15 - 1.45										
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	_	_

g/g - m3/m3

mm/h

mm/h

0 - 0.08 0.08 - 0.3 0.3 - 0.62 0.75 - 1.15 1.15 - 1.45

m

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## **Laboratory Analyses Completed for this profile**

10B	Extractable sulfur(mg/kg) - Phosphate extractable sulfur
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
15F1_CA	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)
4A1	pH of 1:5 soil/water suspension