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

Project Code: Site ID: 88 Observation ID: 1

Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M. DeCorte Locality:

Date Desc.: Elevation: 07/08/90 255 metres Map Ref.: Sheet No.: 8156 GPS Rainfall: No Data Northing/Long.: 7729440 AMG zone: 55 Runoff: Verv slow

Imperfectly drained Easting/Lat.: 415732 Datum: AGD66 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: No Data Relief: No Data Elem. Type: Slope Category: Plain Level Aspect: 140 degrees Slope: 1 %

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification: N/A Mapping Unit: Hypocalcic Mottled-Mesonatric Brown Sodosol Medium Non-Principal Profile Form: Dv3.43

gravelly Silty Clayey Very deep

ASC Confidence: Solodized **Great Soil Group:** All necessary analytical data are available. solonetz

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

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Very sparse. *Species includes - Aristida species, Bothriochloa

ewartiana

Mid Strata - Tree, 3.01-6m, Sparse. *Species includes - Eremophila mitchellii, Eucalyptus brownii

Tall Strata - Tree, 12.01-20m, Mid-dense. *Species includes - Eucalyptus cambageana, Eucalyptus brownii

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

Dark brown (7.5YR3/2-Moist); ; Silty clay loam; Moderate grade of structure, 5-10 mm, A11 0 - 0.08 m Subangular blocky; Smooth-ped fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.05); Common, fine (1-2mm) roots; Clear, Smooth change to -

A21 0.08 - 0.2 m Strong brown (7.5YR5/6-Moist); ; Fine sandy clay loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Dry; Firm consistence; , Calcareous, , ; , Gypseous, , ;

Common, fine (1-2mm) roots, Clear, Smooth change to -

A22e 0.2 - 0.25 m Strong brown (7.5YR4/6-Moist); ; Fine sandy clay loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Dry; Weak consistence; , Calcareous, , ; , Gypseous, , ;

Common, fine (1-2mm) roots; Sharp, Smooth change to -

Brown (7.5YR5/4-Moist); Mottles, 5YR43, 20-50%, 5-15mm, Distinct; Mottles, 20-50%; Medium heavy clay; Strong grade of structure, 20-50 mm, Columnar; Strong grade of structure, 10-20B21 0.25 - 0.52 m

mm, Angular blocky; Smooth-ped fabric; Dry; Strong consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , ; , Gypseous, , ; Field pH 6.8 (Raupach, 0.3); Few, fine (1-2mm) roots; Clear, Smooth change to -

B22 Brown (7.5YR4/4-Moist); ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular 0.52 - 0.68 m

> blocky; Smooth-ped fabric; Dry; Strong consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules; Calcareous, ; Gypseous, ; Field pH 9 (Raupach, 0.6); Clear, Smooth

change to -

Reddish brown (5YR4/4-Moist); ; Medium heavy clay; Strong grade of structure, 10-20 mm, B23c 0.68 - 1 m

Angular blocky; Smooth-ped fabric; Dry; Strong consistence; Many (20 - 50 %), Manganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , ; , Gypseous, , ; Field pH 9 (Raupach, 0.9); Clear,

Smooth change to -

B24c Yellowish red (5YR4/6-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, 1 - 1.6 m

Angular blocky; Smooth-ped fabric; Dry; Strong consistence; Many (20 - 50 %), Manganiferous, Medium (2 -6 mm), Nodules; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules;

Gypseous, , ; Field pH 9 (Raupach, 1.2);

Morphological Notes

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Project Name: Project Code: Agency Name: DLR Site ID: 88
QLD Department of Primary Industries

Site Notes

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Laboratory Test Results:

Depth	рН	1:5 EC		nangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m	Ca i	vig	r.	Cmol (-				%
0 - 0.08	6.9A		2.6B	2.8	0.42	0.24				
0.25 - 0.52	7.4A		3.4J	6.1	0.1	1.9		12.41		15.32
0.52 - 0.68 0.68 - 1	8.8A 8.9A		1.1J	1.6	0.4	0.2		31		6.67
1 - 1.6	8.9A		2.3B	0.1	0.1	5.9		14B		42.14
			2.2E	6.2	0.1	4.7				33.57
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Tota K	l Bulk Density	Par GV	ticle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3	OV.	%	Ont Olay
0 - 0.08										
0.25 - 0.52										
0.52 - 0.68										
0.68 - 1										
1 - 1.6										
Depth	COLE		Gravimetric/Volumetric Water Contents						K sat	K unsat
		Sat.	0.05 Bar		0.5 Bar	1 Bar	5 Bar 15	Bar		

g/g - m3/m3

mm/h

mm/h

0 - 0.08 0.25 - 0.52 0.52 - 0.68 0.68 - 1

m

1 - 1.6

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pH of 1:5 soil/water suspension

Laboratory Analyses Completed for this profile

4A1

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 soluble salts
15A2_K 15A2_MG 15A2_NA 15C1_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 Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_CEC 15C1_K	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts 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	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)+
15N1	Exchangeable sodium percentage (ESP)