

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** 2 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By:	M.G. Cannon	Locality:	
Date Desc.:	17/04/90	Elevation:	320 metres
Map Ref.:	Sheet No. : 8158 GPS	Rainfall:	No Data
Northing/Long.:	7818039 AMG zone: 55	Runoff:	Slow
Easting/Lat.:	429565 Datum: AGD66	Drainage:	Imperfectly drained

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 plains <9m 1-3%	Pattern Type:	Plain
Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Fan	Slope Category:	Very gently sloped
Slope:	1 %	Aspect:	200 degrees

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:	Supracalcic Mottled-Subnatric Yellow Sodosol Medium Slightly gravelly Loamy Clayey Moderately deep	Mapping Unit:	N/A
ASC Confidence:	Analytical data are incomplete but reasonable confidence.	Principal Profile Form:	Dy3.13
		Great Soil Group:	Solodic soil

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

Vegetation: Low Strata - , , . *Species includes - Aristida species, Heteropogon contortus, Bothriochloa bladhii
 Mid Strata - , , . *Species includes - Eremophila mitchellii, Eucalyptus brownii, Acacia farnesiana
 Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus brownii

Surface Coarse Fragments: 2-10%, coarse gravelly, 20-60mm, subrounded, Quartz

Profile Morphology

A1	0 - 0.15 m	Dark brown (10YR3/3-Moist); ; Coarse sandy loam (Heavy); Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very weak consistence; , Calcareous, , , , Gypseous, , ; Field pH 7 (Raupach, 0.05); Many, medium (2-5mm) roots; Gradual, Smooth change to -
A3	0.15 - 0.25 m	Dark brown (10YR3/3-Moist); ; Coarse sandy clay loam; Weak grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Weak consistence; , Calcareous, , , , Gypseous, , ; Field pH 6.5 (Raupach, 0.2); Few, medium (2-5mm) roots; Abrupt, Smooth change to -
B21	0.25 - 0.38 m	Light yellowish brown (2.5Y6/4-Moist); Mottles, 2.5Y36, 2-10% , 0-5mm, Distinct; Mottles, 10YR42, 2-10% ; Medium heavy clay; Weak grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moist; Very firm consistence; , Calcareous, , , , Gypseous, , ; Field pH 8.5 (Raupach, 0.3); Few, fine (1-2mm) roots; Clear, Smooth change to -
B22c	0.38 - 0.54 m	Olive yellow (2.5Y6/6-Moist); Mottles, 2.5Y43, 20-50% , 5-15mm, Distinct; Mottles, 20-50% ; Medium heavy clay; Massive grade of structure; Smooth-ped fabric; Moist; Very firm consistence; Common (10 - 20 %), Ferromanganiferous, Medium (2 -6 mm), Soft segregations; Few (2 - 10 %), Calcareous, Very coarse (20 - 60 mm), Nodules; , Gypseous, , ; Soil matrix is Very highly calcareous; Field pH 9 (Raupach, 0.5); Diffuse, Smooth change to -
B23k	0.54 - 0.9 m	; Medium heavy clay; Massive grade of structure; Earthy fabric; Moist; Firm consistence; Many (20 - 50 %), Calcareous, Very coarse (20 - 60 mm), Soft segregations; , Gypseous, , ; Soil matrix is Very highly calcareous; Field pH 9 (Raupach, 0.9);

Morphological Notes

Observation Notes

Site Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				mol (+)/kg				%
0 - 0.15	6.9A		8.3B	2.1	0.48	0.13				
0.25 - 0.38	7.7A									
0.38 - 0.54	8.9A		23E	3.7	0.09	2.1		27B		7.78
			31.6J	1.5	0.4	1.9		31.7I		6.62
										7.04
										5.99
0.54 - 0.9	9.3A		38B	4.2	0.12	2.8				

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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