

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** 38 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By:	M. DeCorte	Locality:	
Date Desc.:	17/07/90	Elevation:	330 metres
Map Ref.:	Sheet No. : 8057 GPS	Rainfall:	No Data
Northing/Long.:	7772654 AMG zone: 55	Runoff:	Very slow
Easting/Lat.:	392640 Datum: AGD66	Drainage:	Poorly 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:	Level plain <9m <1%	Pattern Type:	Plain
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Plain	Slope Category:	Level
Slope:	1 %	Aspect:	180 degrees

Surface Soil Condition (dry): Hardsetting, Surface crust

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Mesotrophic Mesonatric Yellow Sodosol Thick Non-gravelly Clay-loamy Clayey Deep	Principal Profile Form:	Dy2.22
ASC Confidence:	Great Soil Group:	Solodic soil

Analytical data are incomplete but reasonable confidence.

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, Chrysopogon fallax
- Mid Strata - Tree, 3.01-6m, Very sparse. *Species includes - Acacia species, Melaleuca viridiflora
- Tall Strata - Tree, 12.01-20m, Sparse. *Species includes - Eucalyptus melanophloia, Eucalyptus papuana

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.03 m	Very dark greyish brown (10YR3/2-Moist); ; Sandy clay loam; Strong grade of structure, 2-5 mm, Platy; Smooth-ped fabric; Dry; Strong consistence; , Calcareous, , , , Gypseous, , , Abrupt, Smooth change to -
A12	0.03 - 0.17 m	Brown (10YR4/3-Moist); ; Sandy clay loam (Heavy); Massive grade of structure; Earthy fabric; Moderately moist; Very firm consistence; , Calcareous, , , , Gypseous, , , Field pH 5.8 (Raupach, 0.04); Clear, Smooth change to -
A2	0.17 - 0.32 m	Yellowish brown (10YR5/4-Moist); ; Sandy clay loam (Heavy); Weak grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence; , Calcareous, , , , Gypseous, , , Field pH 6 (Raupach, 0.25); Abrupt, Smooth change to -
B21	0.32 - 0.9 m	Light yellowish brown (2.5Y6/4-Moist); Mottles, 10YR58, 0-2% , 0-5mm, Distinct; Mottles, 0-2% ; Light medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence; , Calcareous, , , , Gypseous, , , Field pH 6.8 (Raupach, 0.5); Field pH 7 (Raupach, 0.9); Abrupt, Smooth change to -
B22c	0.9 - 1.18 m	Light brownish grey (10YR6/2-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Moist; Firm consistence; Very many (50 - 100 %), Ferromanganiferous, Very coarse (20 - 60 mm), Nodules; , Calcareous, , , , Gypseous, , , Abrupt, Smooth change to -
B3c	1.18 - 1.28 m	; Medium clay; Massive grade of structure; Earthy fabric; Moderately moist; Rigid consistence; , Calcareous, , , , Gypseous, , , Ferricrete, Strongly cemented, Continuous, Nodular; Abrupt, Smooth change to -
2A2ecb	1.28 - 1.35 m	Light brown (7.5YR6/4-Moist); ; Coarse sand; Massive grade of structure; Earthy fabric; Wet; Very weak consistence; Very many (50 - 100 %), Ferromanganiferous, Coarse (6 - 20 mm), Nodules; , Calcareous, , , , Gypseous, , , Field pH 7.3 (Raupach, 1.35); Abrupt, Smooth change to -
2B2cb	1.35 - 1.5 m	Light brownish grey (10YR6/2-Moist); Mottles, 10YR68, 2-10% , 5-15mm, Distinct; Mottles, 2-10% ; Medium clay; Strong grade of structure, 50-100 mm, Prismatic; Smooth-ped fabric; Moderately moist; Strong consistence; Many (20 - 50 %), Ferromanganiferous, Medium (2 - 6 mm), Nodules; , Calcareous, , , , Gypseous, , , Field pH 7.5 (Raupach, 1.5);

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Observation Notes

Site Notes

Morphological Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%
0.03 - 0.17	6.9A		1.4B	1.1	0.14	0.47			
0.17 - 0.32	7.3A								
0.32 - 0.9	7.7A		1.9B	1.7	0.03	1.1		5.5I	20.00
			1.6J	1.6	0	0.8			14.55
0.9 - 1.18	8.4A								
1.28 - 1.35	8.9A		0.5B	0.68	0.02	0.38			
1.35 - 1.5	9.3A								

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
		C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		

0.03 - 0.17
0.17 - 0.32
0.32 - 0.9
0.9 - 1.18
1.28 - 1.35
1.35 - 1.5

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 - m ³ /m ³						mm/h	mm/h

0.03 - 0.17
0.17 - 0.32
0.32 - 0.9
0.9 - 1.18
1.28 - 1.35
1.35 - 1.5

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Laboratory Analyses Completed for this profile

10B	Extractable sulfur(mg/kg) - Phosphate extractable sulfur
15A2_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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
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