

**Project Name:** Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD  
**Project Code:** DLR                      **Site ID:** 145                      **Observation ID:** 1  
**Agency Name:** QLD Department of Primary Industries

#### Site Information

<b>Desc. By:</b>	M. DeCorte	<b>Locality:</b>	
<b>Date Desc.:</b>	06/09/90	<b>Elevation:</b>	460 metres
<b>Map Ref.:</b>	Sheet No. : 7960    GPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	7906650 AMG zone: 55	<b>Runoff:</b>	Very rapid
<b>Easting/Lat.:</b>	310144    Datum: AGD66	<b>Drainage:</b>	Well drained

#### Geology

<b>ExposureType:</b>	No Data	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	Undisturbed soil core, Siltstone

#### Land Form

<b>Rel/Slope Class:</b>	Undulating rises 9-30m 3-10%	<b>Pattern Type:</b>	Rises
<b>Morph. Type:</b>	Lower-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	Very gently sloped
<b>Slope:</b>	2 %	<b>Aspect:</b>	210 degrees

**Surface Soil Condition (dry):** Hardsetting, Surface crust

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Eutrophic Mottled-Subnatric Brown Sodosol Medium Non-gravelly Silty Clayey Deep	<b>Principal Profile Form:</b>	Dy3.42
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	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, <0.25m, Very sparse. \*Species includes - Bothriochloa decipiens, Aristida species  
Mid Strata - Tree, 1.01-3m, Isolated plants. \*Species includes - Eucalyptus crebra  
Tall Strata - Tree, 6.01-12m, Sparse. \*Species includes - Eucalyptus crebra

**Surface Coarse Fragments:** No surface coarse fragments

#### Profile Morphology

A1	0 - 0.03 m	Dark brown (10YR3/3-Moist); ; Silty loam; Strong grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Dry; Strong consistence; , Calcareous, , , , Gypseous, , , ; Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A2c	0.03 - 0.13 m	Brown (10YR4/3-Moist); ; Silty clay loam; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Dry; Strong consistence; , Calcareous, , , , Gypseous, , , ; Field pH 6 (Raupach, 0.05); Few, very fine (0-1mm) roots; Abrupt, Tongued change to -
B21	0.13 - 0.3 m	Brown (10YR5/3-Moist); Mottles, 10YR58, 20-50% , 5-15mm; Mottles, 20-50% ; Silty medium clay; Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Dry; Strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; , Calcareous, , , , Gypseous, , , ; Field pH 7 (Raupach, 0.3); Abrupt, Smooth change to -
B22	0.3 - 0.7 m	Olive brown (2.5Y4/4-Moist); Mottles, 10YR58, 20-50% , 5-15mm; Mottles, 20-50% ; Silty medium clay; Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Dry; Strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; , Calcareous, , , , Gypseous, , , ; Field pH 7 (Raupach, 0.6); Abrupt, Smooth change to -
B3	0.7 - 1.1 m	Brownish yellow (10YR6/6-Moist); Mottles, 7.5YR58, 20-50% , 0-5mm; Mottles, 20-50% ; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Dry; Strong consistence; 10-20%, medium gravelly, 6-20mm, angular, dispersed, Siltstone, coarse fragments; , Calcareous, , , , Gypseous, , , ; Field pH 6.5 (Raupach, 0.9); Abrupt, Smooth change to -
C	1.1 - 1.3 m	; , Calcareous, , , , Gypseous, , , ; Field pH 7 (Raupach, 1.3);

#### Morphological Notes

#### Observation Notes

#### Site Notes

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**Laboratory Test Results:**

Depth	pH	1:5 EC		Exchangeable Cations		Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg			%
0.03 - 0.13	6A		1.1B	5.4	0.45	0.19			
0.13 - 0.3	7.2A								
0.3 - 0.7	7.6A		0.6J	7	0.4	0.5	10.5I		4.76
0.7 - 1.1	7.5A		0.18B	8.3	0.14	0.37			
1.1 - 1.3	7.4A								

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**Laboratory Analyses Completed for this profile**

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