

**Project Name:** Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD  
**Project Code:** DLR **Site ID:** 174 **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>	08/10/90	<b>Elevation:</b>	405 metres
<b>Map Ref.:</b>	Sheet No. : 7959 GPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	7855766 AMG zone: 55	<b>Runoff:</b>	Rapid
<b>Easting/Lat.:</b>	326280 Datum: AGD66	<b>Drainage:</b>	Imperfectly drained

#### Geology

<b>Exposure Type:</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>	Flat	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	Level
<b>Slope:</b>	1 %	<b>Aspect:</b>	120 degrees

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Sodic Eutrophic Brown Chromosol Thin Non-gravelly Silty Clayey Moderately deep		<b>Principal Profile Form:</b>	Db1.33
<b>ASC Confidence:</b>	No analytical data are available but confidence is fair.	<b>Great Soil Group:</b>	No suitable group

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

**Vegetation:** Low Strata - Tussock grass, 0.26-0.5m, Sparse. \*Species includes - Sporobolus species, Enteropogon species  
Mid Strata - Tree, 1.01-3m, Isolated plants. \*Species includes - Eucalyptus brownii  
Tall Strata - Tree, 6.01-12m, Mid-dense. \*Species includes - Eucalyptus brownii

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

#### Profile Morphology

A1j	0 - 0.03 m	Dark brown (10YR3/3-Moist); ; Silty clay loam; Massive grade of structure; Earthy fabric; Many (>5 per 100mm <sup>2</sup> ) Medium (2-5mm) macropores, Dry; Strong consistence; , Calcareous, , ; , Gypseous, , ; Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A2j	0.03 - 0.2 m	Brown (10YR4/3-Moist); ; Clay loam; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Very firm consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6.5 (Raupach, 0.05); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
B21	0.2 - 0.4 m	Dark yellowish brown (10YR3/6-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Columnar; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Strong consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Siltstone, coarse fragments; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 0.3); Few, very fine (0-1mm) roots; Clear, Smooth change to -
B22	0.4 - 0.55 m	Strong brown (7.5YR4/6-Moist); ; 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> ) Fine (1-2mm) macropores, Dry; Strong consistence; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Siltstone, coarse fragments; , Calcareous, , ; , Gypseous, , ; Clear, Smooth change to -
B3	0.55 - 0.7 m	Brown (7.5YR4/4-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Dry; Strong consistence; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Siltstone, coarse fragments; Few cutans, <10% of ped faces or walls coated, prominent; , Calcareous, , ; , Gypseous, , ; Field pH 8 (Raupach, 0.6); Clear, Smooth change to -
C	0.7 - 1.1 m	; , Calcareous, , ; , Gypseous, , ; Field pH 9 (Raupach, 1.1);

#### 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 - 0.2	6.1A		5.7B	4	0.49	0.16			
0.2 - 0.4	6.6A		8.9J	9.4	0.2	0.5	19.2I		2.60
0.55 - 0.7	7.5A								
0.7 - 1.1	8.9A								

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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
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