

**Project Name:** Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD  
**Project Code:** DLR **Site ID:** 175 **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>	09/10/90	<b>Elevation:</b>	460 metres
<b>Map Ref.:</b>	Sheet No. : 7959 GPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	7897817 AMG zone: 55	<b>Runoff:</b>	Moderately rapid
<b>Easting/Lat.:</b>	289763 Datum: AGD66	<b>Drainage:</b>	Well 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, Detrital sedimentary rock (unidentified)

#### Land Form

<b>Rel/Slope Class:</b>	Undulating rises 9-30m 3-10%	<b>Pattern Type:</b>	Rises
<b>Morph. Type:</b>	Upper-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>	100 degrees

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	Haplic Eutrophic Red Chromosol Thin Gravelly Clay-loamy Clayey Moderately deep	<b>Mapping Unit:</b>	N/A
<b>ASC Confidence:</b>	All necessary analytical data are available.	<b>Principal Profile Form:</b>	Dr2.12
		<b>Great Soil Group:</b>	Non-calcic brown soil

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

**Vegetation:** Low Strata - Tussock grass, 0.26-0.5m, Sparse. \*Species includes - Heteropogon contortus, Themeda triandra, Dichanthium sericeum Mid Strata - Tree, 3.01-6m, Very sparse. \*Species includes - Eucalyptus erythrophloia, Eucalyptus crebra

Tall Strata - Tree, 6.01-12m, Isolated plants. \*Species includes - Eucalyptus crebra, Eucalyptus papuana

**Surface Coarse Fragments:** 10-20%, coarse gravelly, 20-60mm, rounded tabular, Detrital sedimentary rock (unidentified)

#### Profile Morphology

A1	0 - 0.05 m	Dark reddish brown (5YR3/3-Moist); ; Clay loam; Weak grade of structure, 10-20 mm, Subangular 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); Many, fine (1-2mm) roots; Abrupt, Smooth change to -
B1	0.05 - 0.3 m	Reddish brown (5YR4/4-Moist); ; Medium clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Many (>5 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Very firm consistence; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Detrital sedimentary rock (unidentified), coarse fragments; Few cutans, <10% of ped faces or walls coated, prominent; , Calcareous, , , , Gypseous, , , ; Field pH 6 (Raupach, 0.3); Many, fine (1-2mm) roots; Clear, Smooth change to -
B21t	0.3 - 0.55 m	Red (2.5YR4/6-Moist); ; Medium clay; Strong grade of structure, 20-50 mm, Prismatic; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Very firm consistence; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Detrital sedimentary rock (unidentified), coarse fragments; Many cutans, >50% of ped faces or walls coated, prominent; , Calcareous, , , , Gypseous, , , ; Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
B31	0.55 - 0.62 m	; , Polyhedral; 90-100%, coarse gravelly, 20-60mm, angular, undisturbed, Detrital sedimentary rock (unidentified), coarse fragments; , Calcareous, , , , Gypseous, , , ; Abrupt, Smooth change to -
B32t	0.62 - 0.74 m	Brown (7.5YR4/4-Moist); ; Medium clay; Strong grade of structure, 10-20 mm; Smooth-ped fabric; Many (>5 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Detrital sedimentary rock (unidentified), coarse fragments; Many cutans, >50% of ped faces or walls coated, prominent; , Calcareous, , , , Gypseous, , , ; Field pH 8 (Raupach, 0.7); Clear, Smooth change to -
C	0.74 - 1.1 m	; , Calcareous, , , , Gypseous, , , ; Field pH 7.5 (Raupach, 1);

#### Morphological Notes

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**Site Notes**

**Observation 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 - 0.05	7.1A		12B	8.5	0.67	0.05			
0.05 - 0.3	7A		12J	9.2	0.1	0.1	22.9I		0.44
0.62 - 0.74	7.5A								
0.74 - 1	7.7A								

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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