

**Project Name:** Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD  
**Project Code:** DLR                      **Site ID:** 1605                      **Observation ID:** 1  
**Agency Name:** QLD Department of Primary Industries

#### Site Information

<b>Desc. By:</b>	Rogers, Gary	<b>Locality:</b>	
<b>Date Desc.:</b>	02/02/93	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>	Sheet No. : 8058    GPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	7797844 AMG zone: 55	<b>Runoff:</b>	Slow
<b>Easting/Lat.:</b>	375852    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>	No Data

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Flat	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	Level
<b>Slope:</b>	2 %	<b>Aspect:</b>	No Data

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Bleached-Mottled Mesotrophic Brown Kandosol Medium Non-gravelly Loamy Clay-loamy Moderately deep	<b>Principal Profile Form:</b>	Gn2.75
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Yellow earth

All necessary analytical data are available.

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

**Vegetation:** Low Strata - Tussock grass, 0.26-0.5m, Sparse. \*Species includes - Eriachne species, Chrysopogon fallax, Aristida  
Mid Strata - Tree, 3.01-6m, Sparse. \*Species includes - Eucalyptus crebra, Petalostigma pubescens, Eremophila  
Tall Strata - Tree, 6.01-12m, Sparse. \*Species includes - Eucalyptus crebra

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

#### Profile Morphology

A11	0 - 0.03 m	Very dark greyish brown (10YR3/2-Moist); ; Sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Dry; Very weak consistence; 2-10%, fine gravelly, 2-6mm, subrounded, Quartz, coarse fragments; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , , , Gypseous, , , ; Field pH 6 (Raupach, 0.03); Common, very fine (0-1mm) roots; Abrupt change to -
A12	0.03 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); ; Clayey sand (Heavy); Massive grade of structure; Earthy fabric; Dry; Weak consistence; 2-10%, fine gravelly, 2-6mm, subrounded, Quartz, coarse fragments; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , , , Gypseous, , , ; Field pH 6 (Raupach, 0.05); Common, very fine (0-1mm) roots; Clear change to -
A2	0.1 - 0.35 m	Brown (10YR5/3-Moist); ; Clayey sand; Massive grade of structure; Earthy fabric; Dry; Weak consistence; 10-20%, fine gravelly, 2-6mm, subrounded, Quartz, coarse fragments; Few (2 - 10 %), Ferromanganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , , , Gypseous, , , ; Field pH 6 (Raupach, 0.2); Few, very fine (0-1mm) roots; Gradual change to -
B2	0.35 - 0.65 m	Light olive brown (2.5Y5/6-Moist); Mottles, 5YR5/6, 10-20% , 5-15mm, Distinct; Mottles, 10-20% ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Dry; Weak consistence; 20-50%, medium gravelly, 6-20mm, subrounded, Quartz, coarse fragments; Common (10 - 20 %), Ferromanganiferous, Coarse (6 - 20 mm), Nodules; , Calcareous, , , , Gypseous, , , ; Field pH 6 (Raupach, 0.4); Common, fine (1-2mm) roots;

#### Morphological Notes

#### Observation Notes

#### Site Notes

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**Laboratory Test Results:**

Depth m	pH	1:5 EC	Exchangeable Cations				CEC	ECEC	ESP
		dS/m	Ca	Mg	K	Na Cmol (+)/kg			
0 - 0.03	5.3C 7.1A	0.05A	2.2B	0.65	0.28	0.04			
0.03 - 0.1	7.2A	0.04A	1.8B	0.53	0.22	0.04			
0.1 - 0.35	5.4C 7.3A	0.03A							
0.35 - 0.65	6.8A	0.03A	2.1B	1.4	0.09	0.46			

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle	Size	Analysis		
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.03		0.73A		0.017A	0.04A	0.94A			53A	33	5	8
0.03 - 0.1		0.41A		0.015A	0.01A	0.96A			48A	38	6	8
0.1 - 0.35												
0.35 - 0.65				0.016A		0.84A			44A	21	3	32

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**Laboratory Analyses Completed for this profile**

10A1	Total sulfur - X-ray fluorescence
10B	Extractable sulfur(mg/kg) - Phosphate extractable sulfur
12A1_CU	DTPA - extractable copper, zinc, manganese and iron
12A1_FE	DTPA - extractable copper, zinc, manganese and iron
12A1_MN	DTPA - extractable copper, zinc, manganese and iron
12A1_ZN	DTPA - extractable copper, zinc, manganese and iron
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
17A1	Total potassium - X-ray fluorescence
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
5A1	Chloride - 1:5 soil/water extract, potentiometric titration
6A1	Organic carbon - Walkley and Black
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method