

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** 257 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M. DeCorte	Locality:
Date Desc.: 16/05/91	Elevation: 240 metres
Map Ref.: Sheet No. : 8158 GPS	Rainfall: No Data
Northing/Long.: 7790750 AMG zone: 55	Runoff: No runoff
Easting/Lat.: 442196 Datum: AGD66	Drainage: Rapidly drained

Geology

Exposure Type: 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: Alluvial plain
Morph. Type: Flat	Relief: No Data
Elem. Type: Terrace flat	Slope Category: Level
Slope: 0 %	Aspect: 0 degrees

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Haplic Eutrophic Brown Dermosol Thick Non-gravelly Sandy Clay-loamy Very deep	Principal Profile Form: Gn3.25
ASC Confidence:	Great Soil Group: No suitable

No analytical data are available but confidence is fair.

Site Disturbance: Extensive clearing, for example poisoning, ringbarking

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Mid-dense. *Species includes - Bothriochloa pertusa, Chloris gayana, Chloris

species Mid Strata - Shrub, 1.01-3m, Isolated clumps. *Species includes - Acacia farnesiana

Tall Strata - Tree, 12.01-20m, Very sparse. *Species includes - Eucalyptus tessellaris

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Dark brown (10YR3/3-Moist); ; Loamy fine sand; Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very weak consistence; , Calcareous, , , , Gypseous, , , Field pH 6 (Raupach, 0.05); Many, very fine (0-1mm) roots; Clear, Smooth change to -
A12	0.1 - 0.3 m	Very dark greyish brown (10YR3/2-Moist); ; Loamy fine sand; Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Medium (2-5mm) macropores, Dry; Very firm consistence; , Calcareous, , , , Gypseous, , , Field pH 6 (Raupach, 0.3); Common, very fine (0-1mm) roots; Clear, Smooth change to -
A3	0.3 - 0.43 m	Dark brown (10YR3/3-Moist); ; Loamy fine sand; Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Very firm consistence; , Calcareous, , , , Gypseous, , , Common, very fine (0-1mm) roots; Gradual, Smooth change to -
B1	0.43 - 0.72 m	Brown (10YR4/3-Moist); ; Fine sandy loam; Weak grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very firm consistence; , Calcareous, , , , Gypseous, , , Field pH 6.5 (Raupach, 0.6); Common, very fine (0-1mm) roots; Gradual, Smooth change to -
B21	0.72 - 1.1 m	Dark brown (7.5YR3/3-Moist); ; Fine sandy loam; Moderate grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Firm consistence; , Calcareous, , , , Gypseous, , , Field pH 7 (Raupach, 0.9); Few, very fine (0-1mm) roots; Clear, Smooth change to -
B22	1.1 - 1.4 m	Dark brown (7.5YR3/3-Moist); ; Fine sandy clay loam; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Weak consistence; , Calcareous, , , , Gypseous, , , Field pH 7.5 (Raupach, 1.2); Gradual, Smooth change to -
B23	1.4 - 1.9 m	Brown (7.5YR4/4-Moist); ; Fine sandy clay loam; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Weak consistence; , Calcareous, , , , Gypseous, , , Field pH 7.5 (Raupach, 1.8);

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Observation Notes

Site Notes

Morphological Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.1	5.4C	0.06A								
	6.4A									
0.1 - 0.3	5.6C	0.04A								
	6.8A									
0.43 - 0.72	5.9C	0.01A	8.3B	3	0.33	0.11				
	7.2A									
0.72 - 1.1	6.1C	0.01A								
	7.5A									
1.1 - 1.4	7.6A	0.02A	13.5E	3.9	17.5	0.22		16.5B		1.33
1.4 - 1.9	7.8A	0.02A	9E	3.2	13	0.14		11.5B		1.22

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		0.9A			0.08A				5D	72	10	17
0.1 - 0.3												
0.43 - 0.72									4D	70	6	20
0.72 - 1.1												
1.1 - 1.4				0.048A		1.93A			4D	53	12	28
1.4 - 1.9				0.047A		2.01A			7D	58	14	22

[illegible]

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
12A1_CU	DTPA - extractable copper, zinc, manganese and iron
12A1_FE	DTPA - extractable copper, zinc, manganese and iron
12A1_ZN	DTPA - extractable copper, zinc, manganese and iron
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
15C1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, 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_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance