

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** 166 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M. DeCorte	Locality:
Date Desc.: 20/09/90	Elevation: 560 metres
Map Ref.: Sheet No. : 7858 GPS	Rainfall: No Data
Northing/Long.: 7833670 AMG zone: 55	Runoff: Moderately rapid
Easting/Lat.: 263381 Datum: AGD66	Drainage: Imperfectly drained

Geology

ExposureType: No Data	Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data	Substrate Material: Undisturbed soil core, Basalt

Land Form

Rel/Slope Class: Gently undulating plains <9m 1-3%	Pattern Type: Plain
Morph. Type: Flat	Relief: No Data
Elem. Type: Plain	Slope Category: Level
Slope: 1 %	Aspect: 330 degrees

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Manganic Eutrophic Red Ferrosol Thin Slightly gravelly Loamy Clayey Deep	Principal Profile Form: Gn3.15
ASC Confidence:	Great Soil Group: Euchrozem

Analytical data are incomplete but reasonable confidence.

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

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Sparse. *Species includes - Dicanthium fecundum, Dichanthium sericeum,
Bothriochloa pertusa Mid Strata - Tree, 3.01-6m, Isolated plants. *Species includes - Eucalyptus crebra, Eucalyptus papuana

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

Surface Coarse Fragments: 0-2%, fine gravelly, 2-6mm, rounded, Quartz

Profile Morphology

A1	0 - 0.03 m	Dark brown (7.5YR3/2-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Weak consistence; , Calcareous, , , , Gypseous, , ; Common, very fine (0-1mm) roots; Clear, Smooth change to -
A3	0.03 - 0.18 m	Dark brown (7.5YR3/4-Moist); ; Clay loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Firm consistence; , Calcareous, , , , Gypseous, , ; Field pH 6.7 (Raupach, 0.05); Common, very fine (0-1mm) roots; Clear, Smooth change to -
B1c	0.18 - 0.68 m	Yellowish red (5YR4/6-Moist); Mottles, 10YR58, 10-20% , 5-15mm, Faint; Mottles, 10-20% ; Light clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Many (>5 per 100mm2) Fine (1-2mm) macropores, Dry; Weak consistence; Common (10 - 20 %), Manganiferous, , Soft segregations; , Calcareous, , , , Gypseous, , ; Field pH 7 (Raupach, 0.3); Common, very fine (0-1mm) roots; Clear, Smooth change to -
B21c	0.68 - 1.05 m	Yellowish red (5YR4/6-Moist); Mottles, 10YR58, 10-20% , 5-15mm, Faint; Mottles, 10-20% ; Light medium clay; Strong grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Common cutans, 10-50% of ped faces or walls coated, prominent; Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , , , Gypseous, , ; Field pH 7 (Raupach, 0.9); Common, very fine (0-1mm) roots; Clear, Smooth change to -
B3c	1.05 - 1.4 m	Dark yellowish brown (10YR4/6-Moist); Mottles, 5YR46, 20-50% , 15-30mm, Distinct; Mottles, 10YR58, 20-50% ; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; 0-2%, cobbly, 60-200mm, angular, dispersed, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, prominent; Many (20 - 50 %), Manganiferous, Very coarse (20 - 60 mm), Veins; , Calcareous, , , , Gypseous, , ; Field pH 7 (Raupach, 1.2); Abrupt, Smooth change to -
C	1.4 - 1.6 m	; , Calcareous, , , , Gypseous, , ; Field pH 7 (Raupach, 1.6);

Morphological Notes

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Laboratory Test Results:

Depth	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
m										
0.03 - 0.18	6.7A		8.2B	3.4	0.97	0.03				
0.18 - 0.68	6.7A		7.7B	4.4	0.19	0.09				
0.68 - 1.05	6.9A		11.3J	5.9	0.1	0.1		18.1I		0.55
1.05 - 1.4	7A		39B	19	0.25	0.34				
1.4 - 1.6	7.2A									

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Laboratory Analyses Completed for this profile

10B	Extractable sulfur(mg/kg) - Phosphate extractable sulfur
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
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