

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** 1603 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By:	Rogers, Gary	Locality:	
Date Desc.:	02/02/93	Elevation:	No Data
Map Ref.:	Sheet No. : 8058 GPS	Rainfall:	No Data
Northing/Long.:	7840464 AMG zone: 55	Runoff:	Very slow
Easting/Lat.:	367652 Datum: AGD66	Drainage:	Imperfectly drained

Geology

ExposureType:	No Data	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	No Data

Land Form

Rel/Slope Class:	Gently undulating rises 9-30m 1-3%	Pattern Type:	Plain
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Plain	Slope Category:	Level
Slope:	1 %	Aspect:	No Data

Surface Soil Condition (dry): Hardsetting, Surface crust

Erosion:

Soil Classification

Australian Soil Classification:	Epicalcareous-Epihypersodic Epipedal Grey Vertosol Slightly gravelly Medium fine Very fine Very deep	Mapping Unit:	N/A
ASC Confidence:	All necessary analytical data are available.	Principal Profile Form:	Ug5.28
		Great Soil Group:	Grey clay

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

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Sparse. *Species includes - Cyperus species, Dichanthium species, Digitaria species

Mid Strata - , , , . *Species includes - None recorded

Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus brownii, Eucalyptus papuana

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

Profile Morphology

A1	0 - 0.05 m	Dark grey (10YR4/1-Moist); ; Light medium clay; Strong grade of structure, 5-10 mm, Subangular blocky; Moderate grade of structure, <2 mm, Polyhedral; Moderately moist; Strong consistence; 2-10%, fine gravelly, 2-6mm, subrounded, Quartz, coarse fragments; , Calcareous, , , , Gypseous, , ; Field pH 6 (Raupach, 0.05); Common, fine (1-2mm) roots; Clear change to -
B21	0.05 - 0.17 m	Grey (5Y5/1-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderately moist; Strong consistence; 2-10%, fine gravelly, 2-6mm, subrounded, Quartz, coarse fragments; , Calcareous, , , , Gypseous, , ; Field pH 6 (Raupach, 0.15); Common, fine (1-2mm) roots; Gradual change to -
B22	0.17 - 0.45 m	Dark grey (5Y4/1-Moist); ; Light medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, Lenticular; Moderately moist; Strong consistence; 2-10%, fine gravelly, 2-6mm, subrounded, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; , Calcareous, , , , Gypseous, , ; Soil matrix is Moderately calcareous; Field pH 8.5 (Raupach, 0.4); Few, very fine (0-1mm) roots; Diffuse change to -
B23	0.45 - 0.75 m	Dark grey (5Y4/1-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Weak grade of structure, Lenticular; Smooth-ped fabric; Moist; Strong consistence; 2-10%, fine gravelly, 2-6mm, subrounded, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , , , Gypseous, , ; Field pH 8.5 (Raupach, 0.7); Few, very fine (0-1mm) roots; Diffuse change to -
B24	0.75 - 1.05 m	Dark grey (5Y4/1-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Weak grade of structure, Lenticular; Smooth-ped fabric; Moist; Strong consistence; 2-10%, fine gravelly, 2-6mm, subrounded, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; , Calcareous, , , , Gypseous, , ; Field pH 8.5 (Raupach, 1); Diffuse change to -

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B25	1.05 - 1.4 m	Greyish brown (2.5Y5/2-Moist); ; Medium heavy clay; Moderate grade of structure, 20-50 mm, Lenticular; Smooth-ped fabric; Moist; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; , Calcareous, , ; , Gypseous, , ; Field pH 8.5 (Raupach, 1.3); Diffuse change to -
B26	1.4 - 1.7 m	Greyish brown (2.5Y5/2-Moist); ; Medium heavy clay; 20-50 mm, Angular blocky; Smooth-ped fabric; Moist; Strong consistence; , Calcareous, , ; , Gypseous, , ; Field pH 8 (Raupach, 1.6); Diffuse change to -
	1.7 - 2 m	Olive grey (5Y5/2-Moist); Mottles, 5Y51, 10-20% , 15-30mm, Faint; Mottles, 10-20% ; Medium heavy clay; 20-50 mm, Angular blocky; Smooth-ped fabric; Strong consistence; , Calcareous, , ; , Gypseous, , ; Field pH 7 (Raupach, 2);

Morphological Notes

Observation Notes

Site 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 - 0.05	6.6A	0.25A	6.6E	6.2	1	0.81		23B		3.52
0.05 - 0.17	5.8C 7A	0.16A								
0.17 - 0.45	8.5A	0.27A	11E	7.6	0.49	3		26B		11.54
0.45 - 0.75	7.4C 7.3A	0.37A								
0.75 - 1.05	8A	0.77A	8.8E	6.8	0.22	5.2		23B		22.61
1.05 - 1.4	7.4C 7.8A	1A								
1.4 - 1.7	7.3C 7.8A	1A	8E					25B		
1.7 - 2	7C 7.7A	1A								

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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
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_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