

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** 33 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By:	M. DeCorte	Locality:	
Date Desc.:	16/07/90	Elevation:	320 metres
Map Ref.:	Sheet No. : 8057 GPS	Rainfall:	No Data
Northing/Long.:	7769446 AMG zone: 55	Runoff:	No runoff
Easting/Lat.:	394635 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 plains <9m 1-3%	Pattern Type:	Plain
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Plain	Slope Category:	Very gently sloped
Slope:	1.5 %	Aspect:	270 degrees

Surface Soil Condition (dry): Cracking, Surface crust

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Epihypersodic Self-Mulching Grey Vertosol Non-gravelly	Principal Profile Form:	Ug5.24
Medium fine Very fine Very deep	Great Soil Group:	Grey clay
ASC Confidence: All necessary analytical data are available.		

Site Disturbance: Limited clearing, for example selective logging

Vegetation: Low Strata - Tussock grass, 0.26-0.5m, Mid-dense. *Species includes - Bothriochloa ewartiana, Aristida species
Mid Strata - Tree, 3.01-6m, Isolated plants. *Species includes - Eucalyptus brownii
Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus brownii

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.08 m	Dark greyish brown (10YR4/2-Moist); ; , 0-0% ; Light clay (Light); Strong grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Weak consistence; , Calcareous, , ; , Gypseous, , ; Field pH 6 (Raupach, 0.04); Common, fine (1-2mm) roots; Abrupt, Smooth change to -
A3	0.08 - 0.22 m	Dark greyish brown (10YR4/2-Moist); Mottles, 10YR21, 0-2% , 0-5mm, Distinct; Mottles, 0-2% ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; , Calcareous, , ; , Gypseous, , ; Common, fine (1-2mm) roots; Clear, Smooth change to -
B21	0.22 - 0.5 m	Dark grey (10YR4/1-Moist); ; , 0-0% ; Heavy clay; Strong grade of structure, 50-100 mm, Lenticular; Strong grade of structure, 20-50 mm, Prismatic; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Firm consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; , Calcareous, , ; , Gypseous, , ; Field pH 8.5 (Raupach, 0.3); Few, very fine (0-1mm) roots; Clear, Smooth change to -
B22	0.5 - 0.83 m	Dark greyish brown (2.5Y4/2-Moist); ; , 0-0% ; Heavy clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Firm consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; , Gypseous, , ; Field pH 8.8 (Raupach, 0.65); Few, very fine (0-1mm) roots; Clear, Smooth
B31	0.83 - 1.15 m	Greyish brown (2.5Y5/2-Moist); ; , 0-0% ; Heavy clay; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Firm consistence; 0-2%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; , Calcareous, , ; , Gypseous, , ; Field pH 6.8 (Raupach, 1); Few, very fine (0-1mm) roots; Clear, Smooth change to -

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B32	1.15 - 1.78 m	Light grey (2.5Y7/2-Moist); ; , 0-0% ; Heavy clay; Strong grade of structure, 50-100 mm, Prismatic; Strong grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 0-2%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; , Calcareous, , , , Gypseous, , , ; Field pH 5.8 (Raupach, 1.4); Clear, Smooth change to -
B33	1.78 - 2.1 m	Light brownish grey (2.5Y6/2-Moist); Mottles, 10YR58, 10-20% , 0-5mm, Prominent; Mottles, 10-20% ; Sandy light medium clay; Moderate grade of structure, 20-50 mm; Moderately moist; Firm consistence; , Calcareous, , , , Gypseous, , , ; Field pH 5.2 (Raupach, 1.8);

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 - 0.08	7.2A		6.8B	4.1	0.23	0.57				
0.08 - 0.22										
0.22 - 0.5	8.6A		15.1J	6.5	0.5	4.1		26.9I		15.24
0.5 - 0.83	9.1A		17B	8.5	0.1	6.9		28B		24.64
			16E	7.5	0.12	5.1				18.21
0.83 - 1.15	8.3A		15B	7.7	0.16	7.3		29B		25.17
			15E	7	0.16	5.4				18.62
1.15 - 1.78	6.3A		8.5J	3.9	0.1	2.2		16I		13.75
1.78 - 2.1	5.8A		15J	7.2	0.2	3.9		27.3I		14.29

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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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,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
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