

Project Name: Preliminary Assessment and Survey of Land Degradation in the Dalrymple Shire, QLD
Project Code: DLR **Site ID:** T537 **Observation ID:** 1
Agency Name: QLD Department of Primary Industries

Site Information

Desc. By: M.G. Cannon	Locality:
Date Desc.: 12/12/91	Elevation: 250 metres
Map Ref.: Sheet No. : 8156 GPS	Rainfall: No Data
Northing/Long.: 7722954 AMG zone: 55	Runoff: Slow
Easting/Lat.: 405135 Datum: AGD66	Drainage: Poorly drained

Geology

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

Land Form

Rel/Slope Class: Level plain <9m <1%	Pattern Type: Plain
Morph. Type: Flat	Relief: No Data
Elem. Type: Plain	Slope Category: Level
Slope: <1 %	Aspect: 130 degrees

Surface Soil Condition (dry): Hardsetting, Cracking

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Vertic Subnatric Grey Sodosol Thick Non-gravelly Clay-loamy Clayey Very deep	Principal Profile Form: Dy3.43
ASC Confidence:	Great Soil Group: Solodic soil

All necessary analytical data are available.

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

Vegetation: Low Strata - , , . *Species includes - Aristida species, Dichanthium species, Heteropogon contortus
 Mid Strata - Tree, 1.01-3m, Sparse. *Species includes - Eucalyptus brownii, Eremophila mitchellii
 Tall Strata - Tree, 6.01-12m, Sparse. *Species includes - Eucalyptus brownii

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.04 m	Dark brown (10YR3/3-Moist); ; Sandy clay loam (Heavy); Massive grade of structure; Earthy fabric; Moderately moist; Very weak consistence; 2-10%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; , Calcareous, , , , Gypseous, , ; Field pH 6 (Raupach, 0.02); Many, fine (1-2mm) roots; Clear, Wavy change to -
A21	0.04 - 0.26 m	Dark yellowish brown (10YR4/8-Moist); ; Clay loam, sandy; Massive grade of structure; Earthy fabric; Moderately moist; Very weak consistence; 2-10%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , , , Gypseous, , ; Field pH 5.5 (Raupach, 0.2); Common, very fine (0-1mm) roots; Gradual, Wavy change to -
A22e	0.26 - 0.39 m	Greyish brown (10YR5/2-Moist); ; Sandy clay loam; Massive grade of structure; Earthy fabric; Dry; Very weak consistence; 10-20%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , , , Gypseous, , ; Field pH 5.8 (Raupach, 0.3); Few, very fine (0-1mm) roots; Abrupt, Wavy change to -
B21	0.39 - 0.68 m	Dark greyish brown (10YR4/2-Moist); ; Medium clay; Moderate grade of structure, 100-200 mm, Columnar; Moderate grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Dry; Very strong consistence; 2-10%, fine gravelly, 2-6mm, subrounded, dispersed, Quartz, coarse fragments; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , , , Gypseous, , ; Field pH 7.5 (Raupach, 0.6); Few, very fine (0-1mm) roots; Gradual, Wavy change to -
B22	0.68 - 1 m	Light yellowish brown (10YR6/4-Moist); Mottles, 10YR66, 2-10% , 5-15mm, Distinct; Mottles, 2-10% ; Medium heavy clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Strong grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Dry; Weak consistence; 10-20%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Nodules; , Calcareous, , , , Gypseous, , ; Field pH 8.5 (Raupach, 0.9); Few, very fine (0-1mm) roots; Abrupt, Wavy change to -

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B23	1 - 1.4 m	Greyish brown (10YR5/2-Moist); Mottles, 2.5YR48, 10-20% , 5-15mm, Prominent; Mottles, 10YR68, 10-20% ; Medium heavy clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Dry; Very strong consistence; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Few (2 - 10 %), Manganiferous, Coarse (6 - 20 mm), Laminae; , Calcareous, , , Gypseous, , ; Field pH 9 (Raupach, 1.3); Few, very fine (0-1mm) roots; Diffuse, Wavy change
B23	1.4 - 1.8 m	Greyish brown (10YR5/2-Moist); Mottles, 2.5YR48, 20-50% , 5-15mm, Prominent; Mottles, 10YR68, 20-50% ; Medium heavy clay; Smooth-ped fabric; Dry; Very strong consistence; 2-10%, fine gravelly, 2-6mm, rounded, dispersed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; , Calcareous, , , Gypseous, , ; Field pH 8.5

Morphological Notes

Observation Notes

DLR1043;B HORIZON DISPERSES./OTHER GROUND COVER - CYPERUS SPECIES.

Site Notes

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Laboratory Test Results:

[illegible]

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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 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
15D2_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; automatic extractor
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)
17A1	Total potassium - X-ray fluorescence
19A1	Carbonates - rapid titration
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A1	Chloride - 1:5 soil/water extract, potentiometric titration
6B2	Total organic carbon - high frequency induction furnace, volumetric
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