

Project Name: Regional
Project Code: REG **Site ID:** T466 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: M.G. Cannon	Locality: Trial area 1 'Shell Project' Lanercost: site 117
Date Desc.: 22/09/86	Elevation: No Data
Map Ref.: Sheet No. : 8060 1:100000	Rainfall: 0
Northing/Long.: 145.902777777778	Runoff: Moderately rapid
Easting/Lat.: -18.625	Drainage: Well drained

Geology

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

Land Form

Rel/Slope Class: Gently undulating plains <9m 1-3%	Pattern Type: Sheet-flood fan
Morph. Type: Lower-slope	Relief: No Data
Elem. Type: Fan	Slope Category: Very gently sloped
Slope: <2 %	Aspect: 40 degrees

Surface Soil Condition (dry): Hardsetting, Soft

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Melanic Mesotrophic Red Kandosol	Principal Profile Form: Gn2.11
ASC Confidence:	Great Soil Group: Red earth
All necessary analytical data are available.	

Site Disturbance: Complete clearing. Pasture, native or improved, but never cultivated

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A	0 - 0.09 m	Very dark grey (7.5YR3/0-Moist); Brown (7.5YR5/2-Dry); ; Sandy clay loam (Light); Weak grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Common, medium (2-5mm) roots; Clear, Wavy change to -
AB	0.09 - 0.24 m	Dark brown (7.5YR3/2-Moist); Pinkish grey (7.5YR6/2-Dry); ; Sandy clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Common, medium (2-5mm) roots; Gradual, Wavy change to -
B21	0.24 - 0.49 m	Reddish brown (5YR4/4-Moist); ; Sandy medium clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subangular, dispersed, Granite, coarse fragments; Very few (0 - 2 %), , , ; Few, fine (1-2mm) roots; Diffuse change to -
B22	0.49 - 0.79 m	Yellowish red (5YR5/6-Moist); ; Sandy medium clay; Massive grade of structure; Earthy fabric; Moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Granite, coarse fragments; Few, fine (1-2mm) roots; Diffuse change to -
B23	0.79 - 1.19 m	Reddish brown (5YR5/4-Moist); , 5YR58, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Sandy clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Clear change to -
2B	1.19 - 1.54 m	Yellowish red (5YR4/6-Moist); , 5YR58, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Clay loam, sandy; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Clear change to -
2B	1.54 - 1.9 m	Yellowish red (5YR5/6-Moist); , 5YR58, 2-10% , 5-15mm, Faint; , 2-10% , 5-15mm, Faint; Clay loam, sandy; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Many (20 - 50 %), Manganiferous, Medium (2 - 6 mm), Soft segregations; Diffuse change to -
	1.9 - 2.25 m	Reddish yellow (5YR6/6-Moist); , 5YR74, 2-10% , 5-15mm, Faint; , 2-10% , 5-15mm, Faint; Sandy medium clay; Massive grade of structure; Earthy fabric; Firm consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 - 6 mm), Soft segregations; Diffuse change to -

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	2.25 - 2.55 m	Light reddish brown (5YR6/4-Moist); , 5YR58, 2-10% , 5-15mm, Faint; , 2-10% , 5-15mm, Faint; Sandy medium clay; Massive grade of structure; Earthy fabric; Firm consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Gradual change to -
3B	2.55 - 2.95 m	Reddish yellow (7.5YR6/6-Moist); , 2.5YR58, 2-10% , 5-15mm, Faint; , 2-10% , 5-15mm, Faint; Sandy medium clay; Massive grade of structure; Earthy fabric; Moist; Firm consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Soft segregations; Gradual change to -
	2.95 - 3.35 m	Reddish yellow (7.5YR6/6-Moist); , 2.5YR58, 0-2% , 5-15mm, Distinct; , 0-2% , 5-15mm, Distinct; Clay loam, sandy; Massive grade of structure; Earthy fabric; Weak consistence; 10-20%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Diffuse change to -
	3.35 - 3.76 m	Reddish yellow (7.5YR6/6-Moist); , 2.5YR58, 2-10% , 5-15mm, Distinct; , 7.5YR72, 2-10% , 5-15mm, Distinct; Sandy light clay; Massive grade of structure; Earthy fabric; Firm consistence; 0-2%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments;

Morphological Notes

Observation Notes

TRACES OF CHARCOAL IN B21,2.95 to3.35 HAS >6MM GRAVEL LENSES THROUGHOUT:

Site Notes

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[illegible]

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0.49 - 0.79
0.79 - 1.19
1.19 - 1.54
1.54 - 1.9
1.9 - 2.25
2.25 - 2.55
2.55 - 2.95
2.95 - 3.35
3.35 - 3.76

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Laboratory Analyses Completed for this profile

15A2_CEC	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15D1_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) by compulsive exchange, no pretreatment for soluble
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J1	Effective CEC
3_NR	Electrical conductivity or soluble salts - Not recorded
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5_C_B	Water soluble Chloride - Method recorded as B
6B3	Total organic carbon - high frequency induction furnace, infrared
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9B_9C	Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO ₃ extractable
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H ₂ SO ₄ (BSES)
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
P10_GRAV	Gravel (%)