Project Name: **TYE**
Project Code: **TYE** **Site ID:** **H239** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (TAS)**

Site Information

Desc. By: G.M. Dimmock
Date Desc.: 19/12/61
Map Ref.:
Northing/Long.: 146.884722222222
Easting/Lat.: -42.7138888888889
Locality: .8KM SW of bushy park on property "Red Hill":
Elevation: 94 metres
Rainfall: 570
Runoff: Slow
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Soil pit, 0.91 m deep,Lacustrine Sediment

Land Form

Rel/Slope Class: No Data
Morph. Type: Flat
Elem. Type: No Data
Slope: <1 %
Pattern Type: Terrace (alluvial)
Relief: No Data
Slope Category: Very gently sloped
Aspect: No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Dystrophic Mottled-Mesonatric Brown Sodosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Dy3.41
Great Soil Group: Lateritic podzolic soil

Site Disturbance: Limited clearing, for example selective logging

Vegetation: Low Strata - Tussock grass, , Sparse. *Species includes - Danthonia species, Lomandra longifolia
Mid Strata - Tree, , . *Species includes - None recorded
Tall Strata - Tree, , . *Species includes - Eucalyptus similis, Eucalyptus viminalis

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.09 m	Dark grey (10YR4/1-Moist); Grey (10YR5/1-Dry); ; Loamy sand; Weak grade of structure, Granular; Moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; AbundantClear change to -
A21	0.09 - 0.18 m	Grey (10YR5/1-Moist); Grey (10YR6/1-Dry); ; Sand; Massive grade of structure; Dry; Very weak consistence; 20-50%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), ; ManyGradual change to -
A22	0.18 - 0.25 m	Brown (7.5YR4/3-Moist); Pinkish grey (7.5YR6/3-Dry); ; Sand; Massive grade of structure; Dry; Loose consistence; 10-20%, rounded, Quartz, coarse fragments; Common (10 - 20 %), Ferruginous, , ; FewDiffuse change to -
A23	0.25 - 0.33 m	Brown (7.5YR5/3-Moist); Pinkish grey (7.5YR6/3-Dry); ; Sand; Massive grade of structure; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Dry; Strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), ; FewAbrupt change to -
A3	0.33 - 0.37 m	Yellowish brown (10YR5/4-Moist); Very pale brown (10YR7/3-Dry); ; Clayey sand (Light); Massive grade of structure; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Dry; Very strong consistence; 10-20%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Common (10 - 20 %), Ferruginous, Medium (2 -6 mm), ; FewAbrupt, Irregular change to -
B21	0.37 - 0.41 m	Yellowish brown (10YR5/6-Dry); , 2.5YR38; Heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Fine, (0 - 5) mm crack; Dry; Rigid consistence; 0-2%, coarse gravelly, 20-60mm, Substrate material, coarse fragments; Common (10 - 20 %), Ferruginous, , ; FewDiffuse change to -
B22	0.41 - 0.48 m	Yellowish brown (10YR5/6-Moist); , 2.5YR38; , 10YR43; Heavy clay; Weak grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, 20-50 mm, Angular blocky; Fine, (0 - 5) mm crack; Dry; Rigid consistence; 0-2%, coarse gravelly, 20-60mm, Substrate material, coarse fragments; FewDiffuse change to -

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B23	0.48 - 0.63 m	Yellowish brown (10YR5/6-Moist); , 2.5YR38; , 10YR43; Heavy clay; Weak grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, 20-50 mm, Angular blocky; Fine, (0 - 5) mm crack; Dry; Rigid consistence; 0-2%, coarse gravelly, 20-60mm, Substrate material, coarse fragments; Few
B24	0.63 - 0.79 m	Yellowish brown (10YR5/6-Moist); , 2.5YR38; , 10YR61; Heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Dry; Rigid consistence; 50-90%, cobbly, 60-200mm, Substrate material, coarse fragments;
B25	0.79 - 0.91 m	Yellowish brown (10YR5/6-Moist); , 2.5YR38; , 10YR61; Heavy clay; Weak grade of structure, 20-50 mm, Angular blocky; Dry; Rigid consistence; 10-20%, coarse gravelly, 20-60mm, Substrate material, coarse fragments; Few, medium (2-5mm) roots;

Morphological Notes

Observation Notes

9-48CM FE SEGREGATIONS PISOLITIC:41-63CM <10% <25MM ROUNDED QZ ALSO:9-18CM <30% <60MM ANGULAR LATERITE ALSO:

Site Notes

ELLENDALE

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.09	5.1A	0.063A	2.4H	0.6	0.31	0.24	8.3H 10.3E		13.9B	
0.09 - 0.18	5.5A	0.033A								
0.18 - 0.25	5.5A	0.03A								
0.25 - 0.33	5.7A	0.024A	0.26H	0.16	0.16	0.12	2.2H 2.5E		3.2B	
0.33 - 0.37	5.8A	0.036A								
0.37 - 0.41	5.9A	0.068A								
0.41 - 0.48	5.7A	0.071A	0.5H	0.89	0.89	0.63	4.6H 9.4E		8.5B	
0.48 - 0.63	5.2A	0.086A								
0.63 - 0.79	4.8A	0.11A								
0.79 - 0.91	4.5A	0.152A	0.66H	0.32	0.32	0.24	8.8H 13.1E		17.5B	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.09		3.6D		0.015D	0.21A			33	44B	39	7	5
0.09 - 0.18		0.89D		0.002D	0.052A							
0.18 - 0.25		0.71D			0.039A							
0.25 - 0.33		0.52D			0.03A			37	45D	38	7	8
0.33 - 0.37												
0.37 - 0.41												
0.41 - 0.48		0.89D			0.045A			14	3D	5	3	86
0.48 - 0.63												
0.63 - 0.79												
0.79 - 0.91		0.26D			0.014A			16	6D	6	1	84

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3							mm/h	mm/h
0 - 0.09										
0.09 - 0.18										
0.18 - 0.25										
0.25 - 0.33										
0.33 - 0.37										
0.37 - 0.41										
0.41 - 0.48										
0.48 - 0.63										
0.63 - 0.79										
0.79 - 0.91										

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Laboratory Analyses Completed for this profile

15E1_CA	Exchangeable bases (Ca2+,Mg2+,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
15G_C_H1	Exchangeable hydrogen - meq per 100g of soil - Hydrogen By back titration of A or B
15G1_H	Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0
15J_H	Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A_HCL	Total element - P(%) - By boiling HCl
P10_GRAV	Gravel (%)
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance
P10A1_C	Clay (%) - Pipette
P10A1_CS	Coarse sand (%) - Pipette
P10A1_FS	Fine sand (%) - Pipette
P10A1_Z	Silt (%) - Pipette