Project Name: ESK
Project Code: ESK **Site ID:** H196 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: K.D. Nicholls
Locality: 3.3KM SW of Longford:property "Kimlet":.9CH N of lane with eucalypts and 2.38CH W of fence with eucalypts:
Date Desc.: 12/05/60
Elevation: 160 metres
Map Ref.:
Rainfall: 630
Northing/Long.: 147.090277777778
Runoff: Slow
Easting/Lat.: -41.6166666666667
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data
Substrate Material: Detrital sedimentary rock (unidentified)

Land Form

Rel/Slope Class: No Data
Pattern Type: No Data
Morph. Type: Ridge
Relief: No Data
Elem. Type: Hillslope
Slope Category: Very gently sloped
Slope: 2.5 %
Aspect: 0 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Mottled Mesotrophic Brown Chromosol
ASC Confidence:
Analytical data are incomplete but reasonable confidence.
Mapping Unit: N/A
Principal Profile Form: Db2.12
Great Soil Group: Lateritic podzolic soil

Site Disturbance: Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation:

Surface Coarse Fragments:

Profile Morphology

Ap	0 - 0.1 m	Dark brown (7.5YR3/2-Moist); ; Clay loam; Moderate grade of structure, <2 mm, Granular; Wet; Weak consistence; 2-10%, coarse gravelly, 20-60mm, angular platy, Shale, coarse fragments; Diffuse change to -
B	0.15 - 0.23 m	Brown (7.5YR4/2-Moist); , 7.5YR44; Clay loam (Heavy); Moderate grade of structure, 2-5 mm, Granular; Wet; Weak consistence; 10-20%, coarse gravelly, 20-60mm, angular platy, Shale, coarse fragments; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -
B	0.23 - 0.33 m	Brown (7.5YR4/4-Moist); , 5YR46; , 10YR21; Heavy clay; Weak grade of structure, 2-5 mm, Granular; Wet; Firm consistence; 2-10%, Gravel, coarse fragments; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -
B	0.33 - 0.46 m	Dark brown (10YR3/3-Moist); , 2.5YR36; Heavy clay; Weak grade of structure, 2-5 mm, Granular; Wet; Firm consistence; Slightly plastic; Normal plasticity; 2-10%, Gravel, coarse fragments; Diffuse change to -
	0.46 - 0.61 m	Brown (10YR4/3-Moist); , 2.5YR36; Heavy clay; Weak grade of structure, 2-5 mm, Granular; Firm consistence; Slightly plastic; Normal plasticity; Diffuse change to -
	0.61 - 0.74 m	Dark yellowish brown (10YR4/4-Moist); , 2.5YR36; Heavy clay; Weak grade of structure, 2-5 mm, Granular; Moderately plastic; Normal plasticity; 2-10%, Gravel, coarse fragments; Diffuse change to -
	0.76 - 0.89 m	Dark yellowish brown (10YR4/4-Moist); , 5YR46; Heavy clay; Massive grade of structure; Moderately plastic; Normal plasticity; 10-20%, Gravel, coarse fragments; Diffuse change to -
	1.17 - 1.27 m	Yellowish red (5YR4/6-Moist); , 2.5Y52; Heavy clay; 2-10%, Gravel, coarse fragments; Diffuse change to -
	1.62 - 1.7 m	Grey (5Y6/1-Moist); , 2.5YR36; Heavy clay; Moderately plastic; Normal plasticity; 2-10%, Gravel, coarse fragments; Diffuse change to -
	1.9 - 2.01 m	Light grey (5Y7/2-Moist); , 10YR56; Heavy clay; Very plastic; Normal plasticity; Diffuse change to -

Morphological Notes

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Observation Notes

THROUGH PIT OCCASIONAL PIECES OF PLATY LATERITE TO 60MM:

Site Notes

LONGFORD

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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 - 0.1	6.3A	0.152A	18.2H	1.4	0.35	0.46	6H 13.4E		33.8B	
0.15 - 0.23	6.3A	0.048A								
0.23 - 0.33	6.8A	0.051A	11.5H	5.8	0.1	0.32	3H 9.4E		27.1B	
0.33 - 0.46	6.9A	0.045A								
0.46 - 0.61	7A	0.042A	9.9H	10.2	0.11	0.57	7.8E		28.6B	
0.61 - 0.74	7A	0.036A								
0.76 - 0.89	6.1A	0.039A	8H	9.6	0.11	0.84	4H 9.1E		27.7B	
1.17 - 1.27	5.4A	0.051A								
1.62 - 1.7	5.3A	0.045A	1.1H	4.8	0.14	0.81	16H 21E		27.9B	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS	Silt	Clay
0 - 0.1		4.1D		0.076D	0.313A			9	15B	19	21	36
0.15 - 0.23		1.8D		0.046D	0.135A							
0.23 - 0.33		1.4D		0.031D	0.114A			3	8B	7	10	74
0.33 - 0.46		0.97D			0.087A							
0.46 - 0.61		0.75D		0.019D	0.069A			0	4D	3	6	87
0.61 - 0.74												
0.76 - 0.89								18	2D	4	6	86
1.17 - 1.27												
1.62 - 1.7								3	5D	5	7	82

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 - 0.1										
0.15 - 0.23										
0.23 - 0.33										
0.33 - 0.46										
0.46 - 0.61										
0.61 - 0.74										
0.76 - 0.89										
1.17 - 1.27										
1.62 - 1.7										

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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