

**Project Name:** LON  
**Project Code:** LON      **Site ID:** H89      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (TAS)

**Site Information**

<b>Desc. By:</b>	J. Loveday	<b>Locality:</b>	4.1km N of Perth:
<b>Date Desc.:</b>	24/02/54	<b>Elevation:</b>	259 metres
<b>Map Ref.:</b>	Sheet No. : 8314 1:100000	<b>Rainfall:</b>	630
<b>Northing/Long.:</b>	147.166666666667	<b>Runoff:</b>	Rapid
<b>Easting/Lat.:</b>	-41.533333333333	<b>Drainage:</b>	Well drained

**Geology**

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	Dolerite

**Land Form**

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	Hills
<b>Morph. Type:</b>	Ridge	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	Moderately inclined
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Haplic Eutrophic Brown Kandosol	<b>Principal Profile Form:</b>	Dr2.12
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Non-calcic brown soil

All necessary analytical data are available.

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

**Vegetation:** Low Strata - Tussock grass, 0.26-0.5m, Sparse. \*Species includes - Danthonia species

Tall Strata - Tree, 12.01-20m, Sparse. \*Species includes - Eucalyptus viminalis, Acacia species, Bursaria

spinosa

**Surface Coarse Fragments:** 2-10%, bouldery, 600mm-2m, , Dolerite

**Profile Morphology**

A1	0 - 0.08 m	Dark brown (7.5YR3/4-Moist); ; Loam; , Granular; Moderately moist; Weak consistence; 0-2%, Gravel, coarse fragments; CommonDiffuse change to -
	0.08 - 0.15 m	Dark brown (7.5YR3/4-Moist); ; Loam; , Granular; Weak consistence; 2-10%, Dolerite, coarse fragments; CommonDiffuse change to -
	0.16 - 0.24 m	Brown (7.5YR4/4-Moist); ; Clay loam; , Granular; Weak consistence; 0-2%, medium gravelly, 6-20mm, Dolerite, coarse fragments; CommonDiffuse change to -
	0.24 - 0.32 m	Reddish brown (5YR4/3-Moist); ; Clay loam; , Granular; Weak consistence; 2-10%, medium gravelly, 6-20mm, Dolerite, coarse fragments; Sharp, Irregular change to -
B	0.33 - 0.41 m	Dark yellowish brown (10YR4/6-Moist); ; Heavy clay; Weak grade of structure; Moderately moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, Dolerite, coarse fragments; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -
	0.41 - 0.56 m	Brown (7.5YR5/4-Moist); ; Heavy clay; Weak grade of structure; Firm consistence; Common (10 - 20 %), Ferruginous, Fine (0 - 2 mm), Concretions; Diffuse change to -
	0.6 - 0.74 m	Olive grey (5Y5/2-Moist); , 2.5YR46, 2-10% ; , 2-10% ; Heavy clay; Weak grade of structure; Firm consistence; Common (10 - 20 %), Ferruginous, Fine (0 - 2 mm), Concretions;

**Morphological Notes**

**Observation Notes**

74-86CM MOIST PLASTIC OLIVE GREY CLAY IN CRACKS BETWEEN LARGE BOULDERS OF DOLERITE

**Site Notes**

LONGFORD

**Observation ID: 1**

**Laboratory Test Results:**

[illegible][illegible]

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 - 0.08										
0.08 - 0.15										
0.16 - 0.24										
0.24 - 0.32										
0.33 - 0.41										
0.41 - 0.56										
0.6 - 0.74										

**Project Name:** LON  
**Project Code:** LON      **Site ID:** H89      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (TAS)

**Laboratory Analyses Completed for this profile**

15D1_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15E1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) 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
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 (%)
P10A1_C	Clay (%) - Pipette
P10A1_CS	Coarse sand (%) - Pipette
P10A1_FS	Fine sand (%) - Pipette
P10A1_Z	Silt (%) - Pipette
XRD_C_Hm	Hematite - X-Ray Diffraction
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction