

Project Name: DER
Project Code: DER **Site ID:** H235 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: G.M. Dimmock **Locality:** 2.8KM W of Kingston P.O. along Summerleas Rd on property "Mt. Pleasant":48M from fence at 298degrees +28M from lane:
Date Desc.: 07/12/61 **Elevation:** 158 metres
Map Ref.: **Rainfall:** 630
Northing/Long.: 147.2875 **Runoff:** Moderately rapid
Easting/Lat.: -42.9777777777778 **Drainage:** Moderately well drained

Geology

ExposureType: Soil pit **Conf. Sub. is Parent. Mat.:** No Data
Geol. Ref.: RBb **Substrate Material:** Porous, Basalt

Land Form

Rel/Slope Class: Rolling hills 90-300m 10-32% **Pattern Type:** Hills
Morph. Type: No Data **Relief:** No Data
Elem. Type: Hillslope **Slope Category:** Moderately inclined
Slope: 10.5 % **Aspect:** 45 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification: **Mapping Unit:** N/A
Haplic Eutrophic Brown Kandosol **Principal Profile Form:** Um7.11
ASC Confidence: **Great Soil Group:** No suitable group
All necessary analytical data are available.

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A 0 - 0.11 m Dark brown (7.5YR3/2-Moist); Brown (7.5YR4/2-Dry); ; Clay loam; Strong grade of structure, 2-5 mm, Subangular blocky; Dry; Very strong consistence; 2-10%, Basalt, coarse fragments; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), ; ManyGradual change to -

B 0.11 - 0.27 m Dark reddish brown (5YR3/3-Moist); Reddish brown (5YR4/3-Dry); ; Fine sandy clay loam (Light); Moderate grade of structure, 2-5 mm, Subangular blocky; Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Very strong consistence; 2-10%, Basalt, coarse fragments; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), ; CommonDiffuse change to -

B 0.27 - 0.39 m Dark reddish brown (5YR3/3-Moist); Reddish brown (5YR4/3-Dry); ; Fine sandy loam; Weak grade of structure, 2-5 mm, Subangular blocky; Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Very strong consistence; Very few (0 - 2 %), Ferruginous, , ; CommonDiffuse change to -

B 0.39 - 0.48 m Dark brown (7.5YR3/3-Moist); Brown (7.5YR4/3-Dry); ; Fine sandy loam; Massive grade of structure; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Dry; Strong consistence; 0-2%, Basalt, coarse fragments; CommonDiffuse change to -

BC 0.48 - 0.58 m Dark brown (7.5YR3/2-Moist); Brown (7.5YR4/2-Dry); ; Fine sandy loam; Massive grade of structure; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Dry; Strong consistence; 0-2%, Basalt, coarse fragments; Gradual change to -

C 0.63 - 0.89 m (N7/0-Moist); , 10YR88; , N80; Sandy clay loam; Massive grade of structure; Moist; Weak consistence;

C 1.14 - 1.24 m ;

Morphological Notes

C Grey w'd BA @ YB+W fillings in vesicles:FE stained BA GV:

Observation Notes

0-48CM WORMS ACTIVE:63-89CM RB CLAY COATINGS:2 LARGE BA BOULDERS (230MM) AT 46CM:

Site Notes

HOBART

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity		%
							(+)/kg		
0 - 0.11	6.4A	0.068A	13.6H	2.7	0.21	0.4	6H 16.8E		33.7B
0.11 - 0.27	6.8A	0.03A							
0.27 - 0.39	7A	0.024A	7.9H	4.2	0.07	0.33	11.3E		23.8B
0.39 - 0.48	7A	0.268A							
0.48 - 0.58	7A	0.03A							
0.63 - 0.89	7.1A	0.033A							
1.14 - 1.24	6.9A	0.051A	11.4H	17.2	0.1	0.91	18.8E		48.4B

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle		Size	Analysis	
								GV	CS		FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.11		3.35D		0.138D	0.253A			21	11B	41	23	16
0.11 - 0.27		1.03D		0.103D	0.072A			14	13B	42	29	14
0.27 - 0.39		0.44D		0.076D	0.038A			12	8D	46	37	14
0.39 - 0.48								2	6B	41	29	19
0.48 - 0.58								1	6D	46	25	19
0.63 - 0.89												
1.14 - 1.24								4	9B	41	25	18

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 - 0.11										
0.11 - 0.27										
0.27 - 0.39										
0.39 - 0.48										
0.48 - 0.58										
0.63 - 0.89										
1.14 - 1.24										

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Laboratory Analyses Completed for this profile

12_HCL_FE	Total element - Fe(%) - Total acid(HCl) extractable Fe
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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
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