Project Name: TAM
Project Code: TAM **Site ID:** H257 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By: G.M. Dimmock
Locality: 4.8KM SE of Beaconsfield on west side of West Tamar Highway 14.6M upslope from HEC pole 304:
Date Desc.: 23/05/63
Elevation: 50 metres
Map Ref.:
Rainfall: 940
Northing/Long.: 146.855555555556
Runoff: Moderately rapid
Easting/Lat.: -41.2347222222222
Drainage: Poorly drained

Geology

ExposureType: Soil pit
Conf. Sub. is Parent. Mat.: No Data
Geol. Ref.: No Data
Substrate Material: Mudstone

Land Form

Rel/Slope Class: Rolling low hills 30-90m 10-
Pattern Type: Low hills
Morph. Type: Lower-slope
Relief: No Data
Elem. Type: Hillslope
Slope Category: Moderately inclined
Slope: 13 %
Aspect: 22 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:
Bleached-Mottled Dystrophic Brown Kurosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Dy3.21
Great Soil Group: Yellow podzolic soil

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

Vegetation: Low Strata - , , Closed or dense. *Species includes - None recorded
Mid Strata - Tree, , . *Species includes - None recorded
Tall Strata - Tree, , . *Species includes - None Recorded

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.05 m	Dark grey (10YR4/1-Moist); ; Fine sandy loam; Weak grade of structure, <2 mm, Granular; Moist; Very weak consistence; 10-20%, medium gravelly, 6-20mm, angular, Quartz, coarse fragments; Common, fine (1-2mm) roots; Clear, Smooth change to -
A2	0.05 - 0.09 m	Grey (2.5Y5/1-Moist); ; Fine sandy loam; Massive grade of structure; Moist; Very weak consistence; 20-50%, medium gravelly, 6-20mm, angular, Quartz, coarse fragments; FewClear, Wavy change to -
A2	0.05 - 0.09 m	Grey (2.5Y5/1-Moist); ; Fine sandy loam; Massive grade of structure; Moist; Very weak consistence; 20-50%, medium gravelly, 6-20mm, angular, Quartz, coarse fragments; FewClear, Wavy change to -
A2A3	0.09 - 0.14 m	Grey (2.5Y5/1-Moist); ; Fine sandy loam; Massive grade of structure; Moist; Very weak consistence; 20-50%, medium gravelly, 6-20mm, angular, Quartz, coarse fragments; Few
A3	0.14 - 0.28 m	Light yellowish brown (2.5Y6/4-Moist); , 10YR53; Fine sandy clay loam; Massive grade of structure; Moderately moist; 20-50%, medium gravelly, 6-20mm, angular, Quartz, coarse fragments; , Moderately cemented, Massive; Abrupt, Wavy change to -
B21	0.29 - 0.41 m	Yellowish brown (10YR5/6-Moist); , 10YR32; Heavy clay; Weak grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Moderately moist; Firm consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Few, coarse (>5mm) roots; Gradual change to -
B22	0.41 - 0.56 m	Yellowish brown (10YR5/4-Moist); , 7.5YR56, 2-10% , Faint; , 7.5YR44, 2-10% , Faint; Heavy clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moist; Firm consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Few, fine (1-2mm) roots; Gradual change to -
B23	0.56 - 0.76 m	Olive grey (5Y5/2-Moist); , 7.5YR44; , 10YR54; Heavy clay; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Moist; Firm consistence; 2-10%, medium gravelly, 6-20mm, rounded, Quartz, coarse fragments; FewDiffuse change to -

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B24	0.76 - 0.94 m	Olive grey (5Y5/2-Moist); , 7.5YR56; , 5YR58; Heavy clay; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Moist; Firm consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; FewDiffuse change to -
B25	0.94 - 1.07 m	Olive grey (5Y5/2-Moist); , 7.5YR56; , 2.5YR48; Heavy clay; Weak grade of structure, 5-10 mm, Angular blocky; Moist; Firm consistence; 10-20%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Clear change to -
BC	1.07 - 1.22 m	Strong brown (7.5YR5/6-Moist); , N70; , 2.5Y84; Fine sandy medium clay; Massive grade of structure; Moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments;
BC	1.37 - 1.47 m	(N7/0-Moist); , 7.5YR56; , 2.5YR48; Fine sandy medium clay; Moderately moist; Strong consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments;

Morphological Notes

Observation Notes

0-9CM <10% CC ALSO:14-28CM <2% CHARCOAL ALSO:0-28CM ROUNDED <40MMQZ PEBBLES ALSO:>107CM LARGE GV IN W`D MU : LAYERS RE NUMBERED 14/10/92

Site Notes

BEACONSFIELD

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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 - 0.05	5A	0.045A	3.4H	1.6	0.35	0.18	15.2E		20.7B	
0.05 - 0.09	4.8A	0.036A	1.04H	0.68	0.12	0.09	8.7E		10.6E	
	4.9A	0.03A								
0.05 - 0.09	4.8A	0.036A	1.04H	0.68	0.12	0.09	8.7E		10.6E	
	4.9A	0.03A								
0.09 - 0.14	4.8A	0.033A								
0.14 - 0.28	5A	0.024A	0.15H	0.14	0.04	0.07	5.5E		5.9E	
0.29 - 0.41	5A	0.033A	0.35H	1.5	0.21	0.2	19.2E		21.5E	
0.41 - 0.56	5.2A	0.036A	0.36H	2.1	0.2	0.29	23.4E		26.4E	
0.56 - 0.76	5.3A	0.03A								
0.76 - 0.94	5.2A	0.027A								
0.94 - 1.07	4.9A	0.048A								
1.07 - 1.22	5.1A	0.03A	0.08H	1.2	0.07	0.19	14E		15.5E	
1.37 - 1.47	5.1A	0.033A								

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 - 0.05		4.38D		0.008D	0.181A			14	9B	46	29	10
0.05 - 0.09		1.81D		0.005D	0.075A			21	14B	46	29	9
		1.84D			0.072A							
0.05 - 0.09		1.81D		0.005D	0.075A			21	14B	46	29	9
		1.84D			0.072A							
0.09 - 0.14		0.92D			0.037A							
0.14 - 0.28		0.36D			0.085A			23	15D	46	24	14
0.29 - 0.41		0.59D			0.044A			2	6D	24	16	51
0.41 - 0.56								6	3D	15	10	71
0.56 - 0.76												
0.76 - 0.94												
0.94 - 1.07												
1.07 - 1.22								37	13D	36	16	33
1.37 - 1.47												

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 - 0.05										
0.05 - 0.09										
0.05 - 0.09										
0.09 - 0.14										
0.14 - 0.28										
0.29 - 0.41										
0.41 - 0.56										
0.56 - 0.76										
0.76 - 0.94										
0.94 - 1.07										
1.07 - 1.22										
1.37 - 1.47										

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Laboratory Analyses Completed for this profile

12_HCL_FE	Total element - Fe(%) - Total acid(HCl) extractable Fe
15_NR	Sum of Ex. cations + Ex. acidity - Not recorded
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
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
XRD_C_Ch	Chlorite - X-Ray Diffraction
XRD_C_Hm	Hematite - X-Ray Diffraction
XRD_C_Il	Illite - X-Ray Diffraction
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction
XRD_C_Vm	Vermiculte - X-Ray Diffraction