

Project Name: SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania
Project Code: SCEAM **Site ID:** N33 **Observation ID:** 1
Agency Name: TAS Department of Primary Industries and Fisheries

Site Information

Desc. By:	D.B. Kidd	Locality:	S & D Dobson, Nunamara
Date Desc.:	08/09/05	Elevation:	412 metres
Map Ref.:	GPS S.A. Off	Rainfall:	1194
Northing/Long.:	5420442 AMG zone: 55	Runoff:	Very slow
Easting/Lat.:	520326 Datum: GDA94	Drainage:	Well drained

Geology

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

Landform

Rel/Slope Class: Undulating low hills 30-90m 3-10% **Pattern Type:** Low hills

Morph. Type:	Lower-slope	Relief:	No Data
Elem. Type:	Footslope	Slope Category:	Very gently sloped
Slope:	3 %	Aspect:	No Data

Surface Soil Condition Soft

Erosion

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Melanic Eutrophic Red Ferrosol Medium Moderately gravelly Clay-loamy Clayey Moderately deep	Principal Profile Form:	K-Dr4.11
ASC Confidence:	Great Soil Group:	N/A
All necessary analytical data are available.		

Site Disturbance

Vegetation

Surface Coarse Fragments 10-20%, stony, 200-600mm, , Basalt

Profile Morphology

O1	0 - 0.01 m	Organic Layer; (5YR2.5/2-Moist); , 0-0% ; ; Sharp, Smooth change to -
A1	0.01 - 0.11 m	Dark reddish brown (5YR2.5/2-Moist); , 0-0% ; Clay loam; Moderate grade of structure, Granular; Moderate grade of structure, 2-5 mm, Granular; Earthy fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Fine (1-2mm) macropores, Very weak consistence; Non-plastic; Non-sticky; 50-90%, cobbly, 60-200mm, subrounded, dispersed, Basalt, coarse fragments; Many, very fine (0-1mm) roots; Clear, Smooth change to -
A3	0.11 - 0.22 m	Dark reddish brown (5YR3/3-Moist); , 0-0% ; Clay loam; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 2-5 mm, Granular; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Very weak consistence; Slightly plastic; Normal plasticity; Slightly sticky; 50-90%, stony, 200-600mm, subrounded, dispersed, Basalt, coarse fragments; Common, very fine (0-1mm) roots; Gradual, Smooth change to -
B2	0.22 - 0.61 m	Dark red (2.5YR3/6-Moist); , 0-0% ; Light clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Weak consistence; Slightly plastic; Normal plasticity; Slightly sticky; 50-90%, bouldery, 600mm-2m, subrounded, dispersed, Basalt, coarse fragments; Few, very fine (0-1mm) roots;

Morphological Notes

B2 N33C 30-60 cm

Observation Notes

Substrate not reached bu Tb. Could only dig to 60 cm at deepest point, too stoney and bouldery.

Site Notes

Geomorphic Activity: Aggraded. Agent: volcanic. Approx. 7yr old E. nitens, formerly cut over native forest. Managed by North F. P. (Gunns).

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.075	5C 5.8A	0.066A	9.64A	2.65	0.56	0.15	0.209D 0.66G 0.59075A		13.59075B	
0.15 - 0.225	5.2C 6.1A	0.062A	8.54A	1.99	0.55	0.14	0.11125D 0.33G 0.74225A		11.96225B	
0.3 - 0.6	5.5C 6A 4.5C 5.3A	0.038A 0.016A	8.53A 1.12A	2.28 0.63	0.64 0.5	0.11 0.07	0.01D 0G 0.1184A 0.53D 1.89G 3.29A		11.6784B 5.61B	
0.3 - 0.6	5.5C 6A 4.5C 5.3A	0.038A 0.016A	8.53A 1.12A	2.28 0.63	0.64 0.5	0.11 0.07	0.01D 0G 0.1184A 0.53D 1.89G 3.29A		11.6784B 5.61B	

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV CS	Size FS	Analysis Silt
0 - 0.075		6.62B	13H 3.6I		0.53D					
0.15 - 0.225		5.62B	12H 3.7I		0.47D					
0.3 - 0.6		4.15B 0.52B	14H 3.9I 5H 0.9I		0.31D 0.03D					
0.3 - 0.6		4.15B 0.52B	14H 3.9I 5H 0.9I		0.31D 0.03D					

Laboratory Analyses Completed for this profile

10B_NR	Extractable sulfur (mg/kg) - Not recorded
12_NR_FE	Total element - Fe(%) - Not recorded
12A1_CU	DTPA - extractable copper, zinc, manganese and iron
12A1_FE	DTPA - extractable copper, zinc, manganese and iron
12A1_MN	DTPA - extractable copper, zinc, manganese and iron
12A1_ZN	DTPA - extractable copper, zinc, manganese and iron
12C1	Calcium chloride extractable boron - manual colour
15_NR_AL	Aluminium Cation - meq per 100g of soil - Not recorded
15_NR_H	Hydrogen Cation - meq per 100g of soil - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_K for soluble	salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_MG	salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment

for soluble

salts

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15A1_NA for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15G_C_AL2 By AAS	Exchangeable aluminium - meq per 100g of soil - Aluminium By KCl extraction and detremination
15G1	Exchange acidity (hydrogen and aluminium) by 1M potassium chloride
15J_H	Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)
15N1	Exchangeable sodium percentage (ESP)
18A1	Bicarbonate-extractable potassium
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
6B2	Total organic carbon - high frequency induction furnace, volumetric
7A5	Total nitrogen - high frequency induction furnace, thermal conductivity
7C1a	Ammonium-N, in presence or absence of nitrite
7C1b	(Nitrate+nitrite)-N, in presence of nitrite
9B2_COL longer	Bicarbonate-extractable phosphorus - automated colour. Based on Colwell (1965). Method no
	recommended
9C2	Olsen-extractable phosphorus - automated colour