

Project Name: SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania
Project Code: SCEAM **Site ID:** N39 **Observation ID:** 1
Agency Name: TAS Department of Primary Industries and Fisheries

Site Information

Desc. By:	H. Hawkins	Locality:	Winton, near Epping Forest
Date Desc.:	17/07/06	Elevation:	160 metres
Map Ref.:	GPS S.A. Off	Rainfall:	545
Northing/Long.:	5364670 AMG zone: 55	Runoff:	Slow
Easting/Lat.:	528704 Datum: GDA94	Drainage:	Moderately well drained

Geology

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

Landform

Rel/Slope Class:	Level plain <9m <1%	Pattern Type:	Plain
Morph. Type:	Flat	Relief:	No Data
Elem. Type:	Plain	Slope Category:	Level
Slope:	0 %	Aspect:	No Data

Surface Soil Condition Firm

Erosion

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Basic Regolithic Class Undetermined Tenosol Medium Non-gravelly Sandy Sandy Deep	Principal Profile Form:	N/A

ASC Confidence:	Great Soil Group:	N/A
All necessary analytical data are available.		

Site Disturbance

Vegetation

Surface Coarse Fragments No surface coarse fragments

Profile Morphology

A1	0 - 0.19 m	Dark reddish brown (5YR3/3-Moist); , 0-0% ; Loamy sand; Weak grade of structure, 10-20 mm, prominent) fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very weak consistence; Non-plastic; Non-sticky; Few, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Abrupt, Tongued change to -
B21	0.19 - 0.48 m	Yellowish red (5YR4/6-Moist); Biological mixing, 5YR33, 2-10% , 5-15mm, Distinct; grain grade of structure; Sandy (grains prominent) fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very weak consistence; Non-plastic; Slightly sticky; Few, very fine (0-1mm) roots; Clear, Smooth change to -
B22	0.48 - 0.89 m	Yellowish red (5YR5/8-Moist); , 0-0% ; Clayey sand; Single grain grade of structure; prominent) fabric; Moderately moist; Very weak consistence; Non-plastic; Slightly sticky; (0-1mm) roots; Clear, Smooth change to -
B23	0.89 - 1 m	Strong brown (7.5YR4/6-Moist); , 0-0% ; Clayey sand; Single grain grade of structure; prominent) fabric; Moderately moist; Very weak consistence; Non-plastic; Slightly sticky;

Morphological Notes

B22 Roots thicker with depth though remained <1mm. Sample 48-68cm N39C. Sampled 89-89cm N39D

B23 N39E sampled 89-100cm

Observation Notes

Substrate Wind Blown Sands, Qd or Qg

Site Notes

Inundation frequency: None. Mode of geomorphic activity: Eroded or Aggraded by Sheet Wash.

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.075	5C 5.6A	0.056A	3.79A	0.61	0.33	0.06	0.04D 0.03G 0.08A		4.87B	
0.2 - 0.275	6C 6.7A	0.044A	2.98A	0.74	0.3	0.03	0.01D 0G 0.06A		4.11B	
0.48 - 0.68	6.4C 6.8A	0.028A	2.21A	0.62	0.33	0.11	0.01D 0G 0.02A		3.29B	
0.69 - 0.89	6.5C 6.8A	0.028A	1.98A	0.65	0.13	0.11	0.01D 0G 0.02A		2.89B	
0.89 - 1	6.9C 7A	0.045A	2.21A	1.01	0.13	0.25	0.01D 0G 0.04A		3.64B	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	Clay %	mg/kg	%	%	%	Mg/m3			%	
0 - 0.075		1.22B	23H 10.9I		0.11D						
0.2 - 0.275		0.49B	8H 4.4I		0.05D						
0.48 - 0.68		0.25B	3H 0.9I		0.02D						
0.69 - 0.89		0.19B	2H 0.9I		0.02D						
0.89 - 1		0.18B	2H 0.9I		0.02D						

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
	salts
15A1_K for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
	salts
15A1_NA for soluble	Exchangeable bases (Ca2+,Mg2+,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

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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	Bicarbonate-extractable phosphorus - automated colour. Based on Colwell (1965). Method no
longer	
	recommended
9C2	Olsen-extractable phosphorus - automated colour