Project Name: SCEAM - Soil Condition Evaluation & Monitoring Project, Tasmania

Project Code: SCEAM Site ID: N65 Observation ID: 1

Agency Name: TAS Department of Primary Industries and Fisheries

Site Information

Desc. By: H. Hawkins Locality: Leverington Date Desc.: 17/07/06 Elevation: 175 metres Map Ref.: GPS S.A. Off Rainfall: 595 Northing/Long.: 5374493 AMG zone: 55 Runoff: Slow

Easting/Lat.: 518546 Datum: GDA94 Drainage: Moderately well drained

Geology

ExposureType:Soil pitConf. Sub. is Parent. Mat.:No DataGeol. Ref.:No DataSubstrate Material:No Data

Landform

Rel/Slope Class: Gently undulating rises 9-30m 1-3% Pattern Type: Rises

Morph. Type: Flat Relief: No Data

Elem. Type: Hillcrest Slope Category: Very gently sloped

Slope: 0 % Aspect: No Data

Surface Soil Condition Firm

Erosion

Soil Classification

Australian Soil Classification:Mapping Unit:N/ABasic Ferric Class Undetermined Tenosol Medium Non-gravellyPrincipal Profile Form:N/A

Sandy Clay-loamy Very deep

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

A1p 0 - 0.18 m (/-Moist); , 0-0%; Loamy sand; Weak grade of structure, 5-10 mm, Subangular blocky;

Weak grade of

structure, 10-20 mm, Subangular blocky; Sandy (grains prominent) fabric; Moderately

moist; Very weak

consistence; Non-plastic; Non-sticky; Common, very fine (0-1mm) roots; Clear, Wavy

change to -

B21 0.18 - 0.54 m Yellowish red (5YR4/6-Moist); Biological mixing, 7.5YR2.52, 0-2% , 5-15mm, Distinct;

Clayey sand;

Single grain grade of structure; Sandy (grains prominent) fabric; Moderately moist; Very

weak

consistence; Non-plastic; Non-sticky; Few, very fine (0-1mm) roots; Abrupt, Smooth

change to -

B22 0.54 - 0.88 m St

sand: Single grain

Strong brown (7.5YR5/6-Moist); Mottles, 7.5YR2.51, 0-2%, 0-5mm, Distinct; Clayey

Sand, Single grain

grade of structure; ; Sandy (grains prominent) fabric; Moderately moist; Very weak

consistence; Non-

plastic; Non-sticky; Sharp, Smooth change to -

B23t 0.88 - 1.03 m

Brown (7.5YR5/4-Moist); Substrate influence, 5YR58, 20-50%, 15-30mm, Prominent;

Substrate

influence, 7.5YR46, 20-50%, 15-30mm, Prominent; Clay loam, sandy; Single grain grade

of structure;

Sandy (grains prominent) fabric; Moderately moist; Firm consistence; Slightly plastic;

Normal plasticity;

Slightly sticky; Common (10 - 20 %), Ferromanganiferous, Very coarse (20 - 60 mm),

Nodules;

Morphological Notes

 B21
 Sample N65C 300-540mm

 B22
 Sample N65D 570-850mm

 B23t
 N65E sampled 900-1020mm

Observation Notes

Wind blown sands.

Site Notes

Mode of Geomrphic Activity: Eroded or Aggraded. Agent: Sheet wash and Wind. Positioned under a pivot.

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Laboratory Test Results:

Depth	pН	1:5 EC		hangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECE	
m		dS/m				Cmol (+	·)/kg			%
0 - 0.075	5.8C 6.3A	0.052A	2.89A	0.62	0.63	0.09	0.03D 0G 0.06A		4.29	В
0.2 - 0.275	5C 5.9A	0.03A	1.2A	0.37	0.41	1.06	0.06D 0.14G 0.3A		3.34	В
0.57 - 0.85	6.2C 6.5A	0.018A	1.1A	0.21	0.21	0.11	0.01D 0G 0.06A		1.69	В
0.9 - 1.02	6.6C 7.1A	0.08A	2.91A	6.46	0.24	0.76	0.01D 0G 0.05A		10.42	В
Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Pa GV	article Size CS FS	Analysis Silt
m	%	%	mg/kg	%	%	%	Mg/m3		%	
0 - 0.075		0.82B	81H 35.6I		0.1	D				
0.2 - 0.275		0.23B	65H 31.2I		0.04	4D				
0.57 - 0.85		0.12B	4H 2.4I		0.02	2D				

0.02D

Laboratory Analyses Completed for this profile

0.12B

2H 0.9I

0.9 - 1.02

10B_NR 12_NR_FE 12A1_CU 12A1_FE 12A1_MN 12A1_ZN 12C1 15_NR_AL 15_NR_H 15A1_CA for soluble	Extractable sulfur (mg/kg) - Not recorded Total element - Fe(%) - Not recorded DTPA - extractable copper, zinc, manganese and iron Calcium chloride extractable boron - manual colour Aluminium Cation - meq per 100g of soil - Not recorded Hydrogen Cation - meq per 100g of soil - Not recorded 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
15A1_MG for soluble	salts 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 15J_H	Exchange acidity (hydrogen and aluminium) by 1M potassium chloride 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

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pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1 Total organic carbon - high frequency induction furnace, volumetric Total nitrogen - high frequency induction furnace, thermal conductivity 6B2 7A5

7C1a 7C1b Ammonium-N, in presence or absence of nitrite (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