

Project Name: STM
Project Code: STM **Site ID:** H53 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By:	J. Loveday	Locality:	Position marked on detailed soil map Cornwall map 2A:
Date Desc.:	22/03/53	Elevation:	290 metres
Map Ref.:	Sheet No. : 8514 1:100000	Rainfall:	790
Northing/Long.:	148.033333333333	Runoff:	Rapid
Easting/Lat.:	-41.566666666667	Drainage:	Poorly drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	QA	Substrate Material:	Soil pit, 1.1 m deep, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class:	Level plain <9m <1%	Pattern Type:	Terrace (alluvial)
Morph. Type:	Flat	Relief:	0 metres
Elem. Type:	Plain	Slope Category:	Very gently sloped
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Ferric Eutrophic Brown Chromosol		Principal Profile Form:	Dy3.41
ASC Confidence:		Great Soil Group:	Grey-brown podzolic soil
All necessary analytical data are available.			

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

Vegetation:

Tall Strata - Tree, 12.01-20m, Sparse. *Species includes - None Recorded

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.08 m	Pale brown (10YR6/3-Moist); ; Fine sandy loam; Weak consistence; Diffuse change to -
A1	0.08 - 0.14 m	Pale brown (10YR6/3-Moist); , 10YR72; Sandy loam (Light); Firm consistence; Diffuse change to -
A2	0.14 - 0.27 m	Light grey (10YR7/2-Moist); ; Loamy sand; Very firm consistence; 0-2%, coarse gravelly, 20-60mm, rounded, Dolerite, coarse fragments; Many (20 - 50 %), Ferruginous, Medium (2 -6 mm), Nodules; Sharp, Irregular change to -
B1	0.27 - 0.41 m	Light olive brown (2.5Y5/4-Moist); , 10YR58; Heavy clay; Moist; Very firm consistence; 0-2%, rounded, Dolerite, coarse fragments; Few (2 - 10 %), Ferruginous, Medium (2 -6 mm), Nodules; Diffuse change to -
B	0.41 - 0.53 m	Light olive brown (2.5Y5/4-Moist); , 10YR58; Heavy clay; Moist; Very firm consistence; Slightly plastic; Normal plasticity; Slightly sticky; 0-2%, cobbly, 60-200mm, rounded, Dolerite, coarse fragments; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Nodules; Diffuse change to -
BC	0.61 - 0.76 m	Yellowish brown (10YR5/8-Moist); , 2.5Y54; Heavy clay; Moist; Very firm consistence; Slightly plastic; Normal plasticity; 20-50%, stony, 200-600mm, rounded, Dolerite, coarse fragments; Few (2 - 10 %), Ferruginous, , Concretions; Diffuse change to -
BC	0.89 - 1.07 m	Yellowish brown (10YR5/8-Moist); , 2.5Y54; Heavy clay; Moist; Very firm consistence; Slightly plastic; Normal plasticity; 20-50%, cobbly, 60-200mm, rounded, Dolerite, coarse fragments; Few (2 - 10 %), Ferruginous, , Soft segregations;
	1.07 - 1.17 m	;

Morphological Notes

Stones stopped auger:

Observation Notes

FRODSLEY SERIES:

Site Notes

CORNWALL

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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 - 0.08	4.9A		2.9H	0.72	0.16	0.12	3.7H		10.9B	
0.08 - 0.14	5.1A		2H	0.55	0.05	0.14	7E			
0.14 - 0.27	5.5A		3.2H	1.1	0.06	0.09	4.8E		7.5B	
							0.8H		6B	
							1.6E			
0.27 - 0.41	5.5A		16.9H	17.6	0.28	0.9	3.5H		44.98B	
							9.3E			
0.41 - 0.53	6.1A		19.1H	17.7	0.29	1.2	8.4E		46.7B	
0.61 - 0.76	6.8A		17.3H	15.3	0.18	1.5	4.9E		39.2B	
0.89 - 1.07	5.9A		14.9H	16.5	0.1	1.5	5.3E		38.3B	

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.08		1.72F		0.008D	0.148A			1	13B	52	22	10
		1.38D										
0.08 - 0.14		1.04F			0.09A							
		0.83D										
0.14 - 0.27		0.36F		0.002D	0.027A			49	27B	49	14	9
		0.22D										
0.27 - 0.41		1.34F		0.003D	0.097A			2	7B	11	6	76
		0.71D										
0.41 - 0.53		0.65D			0.086A			2	5D	11	11	78
0.61 - 0.76								35	14D	28	19	41
0.89 - 1.07								49	21D	30	18	33

[illegible]

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Laboratory Analyses Completed for this profile

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
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6_DC	Organic carbon (%) - Dry combustion
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_Gt	Geothite - X-Ray Diffraction
XRD_C_Is	Interstratified clay minerals - X-Ray Diffraction