Project Name: **Three Springs Latham land resources survey**
Project Code: **TSL** **Site ID:** **0348** **Observation ID:** **1**
Agency Name: **Agriculture Western Australia**

Site Information

Desc. By: Christopher Grose
Date Desc.: 19/08/93
Map Ref.:
Northing/Long.: 6730444 AMG zone: 50
Easting/Lat.: 414179 Datum: AGD84
Locality:
Elevation: No Data
Rainfall: No Data
Runoff: No Data
Drainage: No Data

Geology

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

Landform

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

Morph. Type: No Data
Elem. Type: Hillslope
Slope: 3 %
Relief: No Data
Slope Category: No Data
Aspect: No Data

Surface Soil Condition

Firm

Erosion

Soil Classification

Australian Soil Classification:
Haplic Calcic Red Chromosol
ASC Confidence:
Confidence level not specified
Mapping Unit: N/A
Principal Profile Form: Dr1.13
Great Soil Group: N/A

Site Disturbance

Cultivation. Rainfed

Vegetation

Surface Coarse Fragments

Profile Morphology

Ap 0 - 0.08 m Dark brown (7.5YR3/4-Moist); ; Coarse sandy loam; Weak grade of structure, 5-10 mm, ; Moist; Weak consistence; Field pH 6 (pH meter);

A11 0.08 - 0.2 m Red (2.5YR4/6-Moist); ; Coarse sandy clay loam; Weak grade of structure, 10-20 mm, Subangular blocky; Wet; Weak consistence; Field pH 6.8 (pH meter); Abrupt, Smooth change to -

A3 0.2 - 0.27 m Red (2.5YR4/6-Moist); Mottles, 5YR43, 20-50% , 15-30mm, Distinct; Sandy clay loam; Wet; Weak consistence; Field pH 6.8 (pH meter); Abrupt, Smooth change to -

B1 0.27 - 0.47 m Red (2.5YR4/6-Moist); , 5YR52, 20-50% , 5-15mm, Distinct; Coarse sandy light clay; Moist; Very firm consistence; Field pH 7 (pH meter); Gradual, Wavy change to -

B2t 0.47 - 1.3 m Yellowish red (5YR5/8-Moist); , 10YR63, 20-50% , 5-15mm, Distinct; Sandy light clay; Moderate grade of structure, 20-50 mm, Prismatic; Moist; Firm consistence; Soil matrix is Slightly calcareous; Field pH 9.5 (pH meter); Clear, Wavy change to -

BC 1.3 - 1.5 m Light grey (10YR7/2-Moist); , 10R36, 10-20% , 15-30mm, Prominent; , 7.5YR56, 10-20% , 15-30mm, Prominent; Coarse sandy light clay; Moist; Firm consistence; Field pH 9.5 (pH meter);

1.5 - m ; Coarse sandy light clay;

Morphological Notes

A11	Release additional moisture on working.
A3	Release additional moisture on working.
B1	Dries to be very firm.
B2t	Clay skins on ped faces.
BC	Lenses of redder material occasional fragments of weathered gravel.

Observation Notes

Site Notes

Gently undulating rises with broad almost level valley floors. Fine roots throughout top two horizons to 100cm. NOT A TEXTURE

CONTRAST not a Chromosol

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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 - 0.08	4.8B 5.8H	6B	2.64H	0.9	0.27	0.1	0.12J		3.91D	
0.08 - 0.2	5.7B 7H	4B	2.9A	1.34	0.08	0.37			4.69D	
0.2 - 0.27	5.5B 7H	6B	1.73A	1.58	0.07	0.76			4.14D	
0.35 - 0.45	5.8B 7.2H	15B	2.64A	4.49	0.17	2.75			10.05D	
0.8 - 0.9	8.2B 9.1H	54B	2.96E	7.06	0.34	5.72		19B	16.08D	30.11
1.35 - 1.5	8.5B 9.6H	44B	1.65E	5.38	0.35	4.63		14B	12.01D	33.07

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis			
		Clay						GV	CS	FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.08 11.6		0.88D		190B	0.061E						5
0.08 - 0.2 16.7		0.47D		79B	0.024E						5
0.2 - 0.27 16		0.37D		60B	0.021E						4.9
0.35 - 0.45 31.2		0.21D		49B	0.019E						3.6
0.8 - 0.9 47.8	2C	0.11D		50B	0.013E						4.8
1.35 - 1.5 39.7	<2C	0.05D		45B	0.007E						4.3

Laboratory Analyses Completed for this profile

15_NR_BSa Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMR Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_CEC Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_NA Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15C1_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_CEC CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts

15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble salts
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_MN	Exchangeable bases (Mn2+) by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J_BASES	Sum of Bases

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15L1_a	Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using Sum of Cations and measured clay
15N1_a	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
19B_NR	Calcium Carbonate (CaCO3) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B_AL_NR	Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9H1	Anion storage capacity
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75	20 to 75u particle size analysis, (method not recorded)
P10_75_106	75 to 106u particle size analysis, (method not recorded)
P10_NR_C	Clay (%) - Not recorded
P10_NR_Saa	Sand (%) - Not recorded arithmetic difference, auto generated
P10_NR_Z	Silt (%) - Not recorded
P10106_150	106 to 150u particle size analysis, (method not recorded)
P10150_180	150 to 180u particle size analysis, (method not recorded)
P10180_300	180 to 300u particle size analysis, (method not recorded)
P10300_600	300 to 600u particle size analysis, (method not recorded)
P106001000	600 to 1000u particle size analysis, (method not recorded)