

**Project Name:** Three Springs Latham land resources survey  
**Project Code:** TSL **Site ID:** 0350 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Christopher Grose	<b>Locality:</b>	
<b>Date Desc.:</b>	19/08/93	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6717190 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	418945 Datum: AGD84	<b>Drainage:</b>	Well drained

#### Geology

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

#### Landform

**Rel/Slope Class:** Gently undulating plains <9m 1-3% **Pattern Type:** Hills

<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	2 %	<b>Aspect:</b>	No Data

**Surface Soil Condition** Surface crust, Hardsetting

#### Erosion

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Haplic Eutrophic Yellow Chromosol		<b>Principal Profile Form:</b>	Dy5.11
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	N/A
Confidence level not specified			

**Site Disturbance** Cultivation. Rainfed

#### Vegetation

#### Surface Coarse Fragments

#### Profile Morphology

Ap	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Loamy sand; Weak grade of structure, 2-5 mm, ; Dry; Weak
		consistence; Field pH 5.8 (pH meter); Clear, Smooth change to -
B	0.1 - 0.25 m	Brownish yellow (10YR6/8-Moist); ; Sandy clay loam; Weak grade of structure, 5-10 mm, Angular blocky;
		Moist; Weak consistence; 2-10%, Ironstone, coarse fragments; Field pH 5.8 (pH meter); Gradual,
		Smooth change to -
B	0.25 - 0.55 m	Brownish yellow (10YR6/8-Moist); ; Sandy clay loam; Weak grade of structure, 5-10 mm, Angular blocky;
		Moist; Weak consistence; 20-50%, Ironstone, coarse fragments; Field pH 6 (pH meter); Gradual, Wavy
		change to -
B	0.55 - 0.85 m	Brownish yellow (10YR6/6-Moist); ; Sandy clay loam; Strong consistence; Field pH 6 (pH meter);
BC	0.85 - 1.05 m	Brownish yellow (10YR6/8-Moist); , 10YR72, 20-50% , 5-15mm, Distinct; , 10R46, 20-50% , 5-15mm,
		Distinct; Sandy clay loam; Strong consistence; Field pH 6.8 (pH meter);

#### Morphological Notes

B	Very firm intermitently indurated laterite gravels in SCL mix.
BC	Similar to layer 4 but more massive and strongly cemented.

#### Observation Notes

#### Site Notes

Common roots to 60 cm. Roots penetrate to at least 90 cm.

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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 - 0.1	4.6B 5.5H	2B	0.98H	0.25	0.12	0.03	0.17J		1.38D	
0.15 - 0.25	4.3B 5.1H	2B	0.96H	0.32	0.11	0.02	0.21J		1.41D	
0.35 - 0.45	4.7B 5.4H	4B	1.37H	0.6	0.08	0.04	0.06J		2.09D	
0.65 - 0.75	4.8B 5.2H	8B	1.65H	1.9	0.09	0.15	0.09J		3.79D	
0.95 - 1.05	5.3B 5.7H	7B	0.92H	1.88	0.07	0.34	<0.02J		3.21D	

Depth	CaCO3	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	%	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.1		0.65D		170B	0.038E			3.5
10.3								
0.15 - 0.25		0.27D		36B	0.016E			3.3
24.4								
0.35 - 0.45		0.36D		41B	0.023E			3.4
27.1								
0.65 - 0.75		0.14D		37B	0.009E			5.1
39.8								
0.95 - 1.05		0.06D		21B	0.002E			3.9
21.6								

**Laboratory Analyses Completed for this profile**

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMV	Exchangeable bases (Ca/Mg ratio) - Not recorded
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
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
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)