

**Project Name:** Tonebridge land resources survey  
**Project Code:** TON **Site ID:** 0789 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

**Site Information**

<b>Desc. By:</b>	Angela Stuart-Street	<b>Locality:</b>	
<b>Date Desc.:</b>	08/12/98	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6190403 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	484770 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 rises 9-30m 1-3% **Pattern Type:** Rises

<b>Morph. Type:</b>	Upper-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	2 %	<b>Aspect:</b>	180 degrees

**Surface Soil Condition** Firm

**Erosion** (wind); (scald) (sheet) (wave) (rill) (mass)  
(gully) (stbank) (tunnel)

**Soil Classification**

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Bleached-Ferric Mesotrophic Yellow Chromosol	<b>Principal Profile Form:</b>	N/A
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	N/A
Confidence level not specified		

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

**Vegetation**

**Surface Coarse Fragments** 10-20%, medium gravelly, 6-20mm, subrounded, Ironstone; 2-10%, cobbly, 60-200mm, subrounded, Ironstone

**Profile Morphology**

A1p 0 - 0.1 m weak consistence;	Dark brown (10YR3/3-Moist); ; Loamy sand; Single grain grade of structure; Dry; Very weak consistence;
medium	10-20%, fine gravelly, 2-6mm, subrounded tabular, Ironstone, coarse fragments; 2-10%, gravelly, 6-20mm, subrounded tabular, Ironstone, coarse fragments; Water repellent;
Field pH 5.4 (pH meter);	Abrupt, Smooth change to -
A21c 0.1 - 0.2 m Very weak	Light yellowish brown (10YR6/4-Moist); ; Clayey sand; Massive grade of structure; Dry; consistence; 20-50%, fine gravelly, 2-6mm, subrounded tabular, Ironstone, coarse
fragments; 2-10%,	medium gravelly, 6-20mm, subrounded tabular, Ironstone, coarse fragments; Field pH 5.7
(pH meter);	Clear, Wavy change to -
A22c 0.2 - 0.4 m consistence; 20-	Brownish yellow (10YR6/6-Moist); ; Clayey sand; Massive grade of structure; Dry; Weak
medium gravelly, 6-	50%, fine gravelly, 2-6mm, subrounded tabular, Ironstone, coarse fragments; 2-10%,
Wavy change to -	20mm, subrounded tabular, Ironstone, coarse fragments; Field pH 6 (pH meter); Clear,
B11c 0.4 - 0.75 m 10% , 0-5mm,	Very pale brown (10YR7/4-Moist); , 10YR78, 10-20% , 15-30mm, Distinct; , 5YR58, 2-
consistence; 20-	Prominent; Clay loam; Moderate grade of structure, 5-10 mm, Angular blocky; Dry; Firm
change to -	50%, fine gravelly, 2-6mm, Clay, coarse fragments; Field pH 5.8 (pH meter); Diffuse
B21tc 0.75 - 1.4 m 10% , 0-5mm,	Very pale brown (10YR7/4-Moist); , 10YR78, 10-20% , 15-30mm, Distinct; , 5YR58, 2-
firm consistence;	Prominent; Light clay; Moderate grade of structure, 2-5 mm, Angular blocky; Dry; Very

change to - 20-50%, fine gravelly, 2-6mm, Clay, coarse fragments; Field pH 5.3 (pH meter); Gradual

### Morphological Notes

### Observation Notes

### Site Notes

Structured clay occurs in patches in layers 4 & 5 , pale bands in layers 5.

**Project Name:** Tonebridge land resources survey  
**Project Code:** TON **Site ID:** 0789 **Observation** 1  
**Agency Name:** Agriculture Western Australia

### 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	4.9B 5.9H	10B	3.35H	0.38	0.23	0.29	0.51J		4.25D	
0.1 - 0.2	5.4B 6.3H	1B	1.03H	0.26	<0.02	0.02			1.32D	
0.2 - 0.4	5B 6H	1B	0.98H	0.17	<0.02	0.06	0.05J		1.22D	
0.4 - 0.75	6.1B 6.3H	2B	0.87H	1.55	0.02	0.04			2.48D	
0.75 - 1.4	6B 6.2H	2B	0.63H	1.95	0.04	0.13			2.75D	

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		3.99D		320B				4.8
2.6								
0.1 - 0.2		0.24D		37B				3.9
10.8								
0.2 - 0.4		0.49D		43B				3.6
6.7								
0.4 - 0.75		0.1D		23B				6.7
51.2								
0.75 - 1.4		0.07D		23B				7.6
55.8								

### Laboratory Analyses Completed for this profile

15_NR_AL	Aluminium Cation - meq per 100g of soil - Not recorded
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
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - 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
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)

**Project Name:** Tonebridge land resources survey  
**Project Code:** TON                      **Site ID:** 0789                      **Observation** 1  
**Agency Name:** Agriculture Western Australia

P10300\_600      300 to 600u particle size analysis, (method not recorded)  
P106001000      600 to 1000u particle size analysis, (method not recorded)