

**Project Name:** Moora Wongan Hills land resources survey  
**Project Code:** MRA **Site ID:** 1184 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

<b>Desc. By:</b>	Mir Frahmmand	<b>Locality:</b>	
<b>Date Desc.:</b>	18/03/96	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6561197 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	448535 Datum: AGD84	<b>Drainage:</b>	No Data

#### 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>	Lower-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

#### Erosion

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Haplic Mesotrophic Brown 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

#### Vegetation

#### Surface Coarse Fragments

#### Profile Morphology

A1	0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Loamy fine sand; ; ; Dry; Field pH 6.2 (pH meter);
Clear change		to -
B1t	0.1 - 0.3 m	Brownish yellow (10YR6/6-Moist); ; 7.5YR58, 2-10% , Distinct; Light clay; Dry; Field pH 5.4 (pH meter);
		Diffuse change to -
B12t	0.3 - 0.6 m	Yellowish brown (10YR5/6-Moist); ; Light medium clay; Moderate grade of structure,
Angular blocky;		Dry; Field pH 5.8 (pH meter); Diffuse change to -
B2t	0.6 - 1 m	Brownish yellow (10YR6/6-Moist); ; Medium heavy clay; Moderate grade of structure,
Angular blocky;		Dry; Field pH 6 (pH meter); Diffuse change to -
B21t	1 - 1.2 m	Brownish yellow (10YR6/6-Moist); ; 10YR72, 2-10% , Faint; Heavy clay; Massive grade of structure;
		Moist; Field pH 6.1 (pH meter); Diffuse change to -
B22t	1.2 - 1.6 m	Light grey (10YR7/2-Moist); ; 2.5YR48, 20-50% , Distinct; ; 10YR58, 10-20% , Distinct;
Heavy clay; ,		Angular blocky; Moist; Field pH 6 (pH meter);
B3t	1.6 - 2 m	Light grey (10YR7/2-Moist); ; 2.5YR48, 20-50% ; ; 10YR58, 10-20% ; Heavy clay; Moist;
Field pH 6.1		(pH meter);

#### Morphological Notes

B1t	f-s
B12t	f-s

#### Observation Notes

#### Site Notes

slaking clay

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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	4.4B 5.2H	6B	1.4H	0.41	0.13	0.06	0.4J		2D	
0.1 - 0.3	4.6B 5.5H	4B	1.26H	0.6	0.02	0.07	0.13J		1.95D	
0.3 - 0.6	5.6B 6H	6B	1.6H	1.51	0.02	0.15			3.28D	
0.6 - 1	5.9B 6.6H	15B	0.94A	3.26	<0.02	0.89			5.1D	
1 - 1.2	6.2B 6.9H	27B	0.78A	3.74	0.02	1.17			5.71D	
1.2 - 1.6	6.3B 7H	34B	0.74A	3.88	<0.02	1.46			6.09D	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%	
0 - 0.1		1.48D		220B	0.107E						5.7
10											
0.1 - 0.3		0.28D									3
34.6											
0.3 - 0.6		0.16D									4.8
54.5											
0.6 - 1		0.11D									3.8
60.7											
1 - 1.2		0.05D									4.9
62.3											
1.2 - 1.6		0.04D									5.4
65.1											

**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
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
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
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
18A1_NR	Bicarbonate-extractable potassium (not recorded)
3_NR	Electrical conductivity or soluble salts - Not recorded

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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
9B_NR	Bicarbonate-extractable phosphorus (not recorded)
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)