

**Project Name:** Moora Wongan Hills land resources survey  
**Project Code:** MRA **Site ID:** 1187 **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> 6560026 AMG zone: 50	<b>Runoff:</b> No Data
<b>Easting/Lat.:</b> 447221 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

<b>Rel/Slope Class:</b> Undulating rises 9-30m 3-10%	<b>Pattern Type:</b> Low hills
<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> 4 %	<b>Aspect:</b> 270 degrees

**Surface Soil Condition** Soft

#### Erosion

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b> N/A
Sodic 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** 10-20%, , , Quartz

#### Profile Morphology

A1c 0 - 0.1 m	Dark greyish brown (10YR4/2-Moist); ; Loamy fine sand; , Granular; Sandy (grains prominent) fabric; 20-fragments; Strongly
	50%, angular, Quartz, coarse fragments; 10-20%, subangular, Ironstone, coarse water repellent, "Field pH 4.9 (pH meter); Diffuse change to -
A2c 0.1 - 0.35 m	Very dark greyish brown (10YR3/2-Moist); ; Clayey sand; Weak grade of structure, ; 20-50%, angular,
(pH meter);	Quartz, coarse fragments; 10-20%, subangular, Ironstone, coarse fragments; Field pH 4.3
	Clear change to -
B21t 0.35 - 0.6 m	Very pale brown (10YR7/3-Moist); ; Light clay; Moderate grade of structure, Angular
blocky; 10-20%,	Quartz, coarse fragments; Few (2 - 10 %), Ferruginous, , Soft segregations; Field pH 5.5
(pH meter);	Diffuse change to -
B22t 0.6 - 1 m	Light grey (10YR7/2-Moist); , 10YR58, 20-50% , Distinct; Medium clay; Moderate grade of
structure,	Angular blocky; 10-20%, medium gravelly, 6-20mm, Quartz, coarse fragments; Field pH
5.6 (pH meter);	Diffuse change to -
B23tc 1 - 1.4 m	Light grey (10YR7/2-Moist); , 10R36, 20-50% , Prominent; Clay loam; , Angular blocky;
20-50%, Quartz,	coarse fragments; Field pH 4.8 (pH meter); Diffuse change to -
B24t 1.4 - 2 m	White (5Y8/1-Moist); ; Clay loam; Massive grade of structure; 2-10%, Quartz, coarse
fragments; Field	pH 6.5 (pH meter);

#### Morphological Notes

A1c gritty  
 B24t gritty

#### Observation Notes

#### Site Notes

grey deep sandy duplex. Surface stony never wash to angular shape. greyish/brown/shallow sandy duplex

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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	4.1B 5.1H	4B	1.06H	0.32	0.07	0.06	0.38J		1.51D	
0.1 - 0.35	4.1B 5H	3B	0.77H	0.2	0.04	0.04	0.39J		1.05D	
0.35 - 0.6	4.8B 5.6H	3B	0.96H	1.03	0.04	0.05	0.04J		2.08D	
0.6 - 1	5.7B 6.3H	4B	0.57H	3.09	0.08	0.17			3.91D	
1 - 1.4	4.8B 6H	4B	0.04H	1.98	0.05	0.3	0.02J		2.37D	
1.4 - 2	4.1B 5.4H	7B	0.13H	2.76	<0.02	1.32	0.14J		4.22D	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis
m	%	Clay %	mg/kg	%	%	%	Mg/m3	GV CS FS Silt
0 - 0.1		1.38D		190B	0.1E			4.6
6.5								
0.1 - 0.35		1.17D						3.7
5.7								
0.35 - 0.6		0.2D						3.3
37								
0.6 - 1		0.06D						9.5
51.9								
1 - 1.4		0.04D						2.7
30.4								
1.4 - 2		0.05D						11.6
33								

**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_CMRR	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_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
18A1_NR	Bicarbonate-extractable potassium (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
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



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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)