

**Project Name:** Moora Wongan Hills land resources survey  
**Project Code:** MRA **Site ID:** 0506 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

#### Site Information

**Desc. By:** Mir Frahmmand  
**Date Desc.:** 01/01/95  
**Map Ref.:**  
**Northing/Long.:** 6640650 AMG zone: 50  
**Easting/Lat.:** 470210 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 plains <9m 1-3%  
**Pattern Type:** Plain

**Morph. Type:** Flat  
**Elem. Type:** Plain  
**Slope:** 1 %  
**Relief:** No Data  
**Slope Category:** No Data  
**Aspect:** No Data

#### Surface Soil Condition

#### Erosion

#### Soil Classification

**Australian Soil Classification:**  
 Ferric-Sodic Eutrophic Brown Kandosol  
**ASC Confidence:**  
 Confidence level not specified  
**Mapping Unit:** N/A  
**Principal Profile Form:** N/A  
**Great Soil Group:** N/A

#### Site Disturbance

#### Vegetation

#### Surface Coarse Fragments

#### Profile Morphology

A1 0 - 0.05 m Dark yellowish brown (10YR4/4-Moist); ; Sandy loam; Field pH 5.4 (pH meter); Clear change to -  
 A2 0.05 - 0.3 m Yellowish brown (10YR5/4-Moist); ; Sandy clay loam; Diffuse change to -  
 A21 0.3 - 0.7 m Yellowish brown (10YR5/8-Moist); ; Sandy clay loam; Abrupt change to -  
 A22c 0.7 - 1 m Brownish yellow (10YR6/6-Moist); ; Clay loam; Gradual change to -  
 B2t 1 - 1.6 m Brownish yellow (10YR6/6-Moist); , 5YR6/6; Clay loam; Field pH 6.6 (pH meter);

#### Morphological Notes

#### Observation Notes

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#### Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.05	4.6B 5.8H	4B	1.38H	0.72	0.5	0.1	0.16J		2.7D	
0.05 - 0.3	4.1B 5.2H	3B	1.23H	0.51	0.28	0.04	0.54J		2.06D	
0.3 - 0.7	5.2B 6H	3B	2.14H	1.3	0.06	0.15			3.65D	
0.7 - 1	5.7B 6.8H	5B	2.04A	3.07	0.08	0.38			5.57D	
1 - 1.6	5.6B 6.8H	7B	1.03A	3.58	0.2	1.2			6.01D	

Depth	CaCO <sub>3</sub>	Organic C Clay	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m <sup>3</sup>			%	
0 - 0.05 13.5		0.66D		71B	0.061E						6.7
0.05 - 0.3 20.9		0.3D									6.6
0.3 - 0.7 25.9		0.14D									7.4
0.7 - 1 34.8		0.15D									8.5
1 - 1.6 29.8		0.06D									8.3

#### **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_CMd	Exchangeable bases (Ca/Mg ratio) - Not recorded
15_NR_MN	Exchangeable bases (Mn++) - meq per 100g of soil - Not recorded
15A1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 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 (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_MG	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment
for soluble	salts
15A1_NA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 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 (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) 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 (Mn <sup>2+</sup> ) 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
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

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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)