Project Name: Moora Wongan Hills land resources survey

Project Code: 0502 Observation ID: 1 MRA Site ID:

Agency Name: Agriculture Western Australia

Site Information

Desc. By: Mir Frahmand Locality:

Date Desc.: 01/01/95 Elevation: No Data Map Ref.: Rainfall: No Data

Northing/Long.: 6640544 AMG zone: 50 Runoff: No Data Easting/Lat.: 473711 Datum: AGD84 Drainage: No Data

Geology

ExposureType: Soil pit Conf. Sub. is Parent. Mat.: No Data Geol. Ref.: No Data **Substrate Material:** No Data

Landform

Rel/Slope Class: Level plain <9m <1% Pattern Type: Plain Relief. No Data Morph. Type: Flat Elem. Type: Plain **Slope Category:** No Data Slope: 1 % Aspect: No Data

Surface Soil Condition

Erosion

Soil Classification

Australian Soil Classification: N/A **Mapping Unit:** N/A Sodic Mottled Brown Kandosol **Principal Profile Form:** ASC Confidence: **Great Soil Group:** N/A

Confidence level not specified

Site Disturbance Cultivation. Rainfed

Vegetation

Surface Coarse Fragments

Profile Morphology

A1t 0 - 0.1 m Strong brown (7.5YR4/6-Moist); ; Sandy clay loam; Moderate grade of structure,

Granular; Field pH 5.6 (pH meter); Diffuse change to -

0.1 - 0.3 m Yellowish red (5YR5/6-Moist);; Sandy clay loam; Massive grade of structure; Clear A2t

change to -

B1t 0.3 - 0.6 m Yellowish red (5YR4/6-Moist); ; Sandy clay loam; Massive grade of structure; Field pH 6.9

Brown (7.5YR5/4-Moist); , 10YR72; , 2.5YR46; Sandy clay loam; Massive grade of

(pH meter);

Gradual change to -

0.6 - 1 m B2tk

structure; Field pH 7.7 (pH meter); Gradual change to -

Yellowish brown (10YR5/4-Moist); , 10YR72, 2-10%; , 2.5Y36, 10-20%; Clay loam; B22tk 1 - 1.2 m

Massive grade of

structure; Many (20 -

change to -

Cm 1.2 - 1.4 m , 10YR72, 2-10%; , 2.5YR36, 20-50%; Clay loam;

Morphological Notes

B2tk mottled B22tk mottled

Layer proportion of iron cementation Cm

Observation Notes

Site Notes

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Laboratory Test Results:

ESP Depth 1:5 EC **Exchangeable Cations** Exchangeable CEC **ECEC** Ca

Acidity Mg Κ Na

m	dS/m			Cmol (+)/kg						
0 - 0.1	5B 5.3H	88B	4H	1.46	0.19	0.55	0.03J		6.2D	
0.1 - 0.3	5.2B 5.8H	36B	2.7H	1.25	0.04	0.47	0.03J		4.46D	
0.3 - 0.6	5.4B 6.1H	29B	2.67H	1.56	0.02	0.86			5.11D	
0.6 - 1	6.8B 7.5H	49B	3.4A	3.23	0.06	1.07			7.76D	
1 - 1.2	7.4B 7.7H	210B	5.7A	6.57	0.07	1			13.34D	
1.2 - 1.4	8B 8.5H	110B	5.62E	5.71	0.14	1.52		14B	12.99D	10.86

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	GV	Particle CS	Size FS	Analysis Silt
m	%	Clay %	mg/kg	%	%	%	Mg/m3			%	
0 - 0.1 23		0.95D		150B	0.064	≣					5.8
0.1 - 0.3 21.5		0.22D									3.9
0.3 - 0.6 23.9		0.11D									4.9
0.6 - 1 24		0.07D									6
1 - 1.2 34		0.07D									4.4
1.2 - 1.4 32	<2C	0.04D									6

Laboratory Analyses Completed for this profile

15_NR_AL 15_NR_BSa 15_NR_CMR 15_NR_MN 15A1_CA for soluble	Aluminium Cation - meq per 100g of soil - Not recorded Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available Exchangeable bases (Ca/Mg ratio) - Not recorded Exchangeable bases (Mn++) - meq per 100g of soil - Not recorded Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_CEC 15A1_K for soluble	salts Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15A1_NA for soluble	salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment
15C1_CA pretreatment for	salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
15C1_CEC 15C1_K soluble salts	soluble salts CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15E1_AL 15E1_CA salts	Exchangeable AI - by compulsive exchange, no pretreatment for soluble salts Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_K 15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts

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Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 15E1_NA

15J_BASES Sum of Bases

Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using 15L1_a

Sum of Cations

and measured clay

Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC 15N1_a

Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations 15N1_b

Bicarbonate-extractable potassium (not recorded) Calcium Carbonate (CaCO3) - Not recorded 18A1_NR 19B_NR 3 NR Electrical conductivity or soluble salts - Not recorded

pH of soil - Not recorded 4_NR

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

Total Phosphorus (ppm) - semimicro kjeldahl, automated colour 9A3

Bicarbonate-extractable phosphorus (not recorded) 9B_NR

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)

Clay (%) - Not recorded

P10_NR_C P10_NR_Saa Sand (%) - Not recorded arithmetic difference, auto generated

P10_NR_Z Silt (%) - Not recorded

P10106_150 P10150_180 106 to 150u particle size analysis, (method not recorded) 150 to 180u particle size analysis, (method not recorded) 180 to 300u particle size analysis, (method not recorded) P10180_300 P10300_600 300 to 600u particle size analysis, (method not recorded) P106001000 600 to 1000u particle size analysis, (method not recorded)