

Project Name: Moora Wongan Hills land resources survey
Project Code: MRA **Site ID:** 0006 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Mir Frahmmand	Locality:	
Date Desc.:	03/03/95	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6583000 AMG zone: 50	Runoff:	No Data
Easting/Lat.:	443300 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:	Undulating rises 9-30m 3-10%	Pattern Type:	Rises
Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	2 %	Aspect:	315 degrees

Surface Soil Condition Hardsetting

Erosion

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Epihypersodic Regolithic Hypercalcic Calcarosol		Principal Profile Form:	N/A
ASC Confidence:		Great Soil Group:	N/A
Confidence level not specified			

Site Disturbance

Vegetation

Surface Coarse Fragments

Profile Morphology

A1	0 - 0.05 m	Yellowish brown (10YR5/4-Moist); ; Fine sandy loam; <2 mm; ; Dry; Very weak consistence; Strongly
		water repellent, "Field pH 5.7 (pH meter); Diffuse change to -
A3	0.05 - 0.1 m	Dark yellowish brown (10YR3/6-Moist); ; Clay loam, sandy; 2-5 mm; ; Dry; Very weak consistence; Water
		repellent; Field pH 5.8 (pH meter); Clear change to -
B21kc	0.1 - 0.2 m	Brown (7.5YR4/4-Moist); ; Fine sandy light clay; Massive grade of structure; Dry; Weak consistence; 10-
		20%, subangular, Calcrete, coarse fragments; , Calcareous, , Soft segregations; Soil matrix is
		Moderately calcareous; Field pH 6.1 (pH meter); Gradual change to -
B22tkc	0.2 - 0.4 m	Dark reddish brown (5YR3/4-Moist); ; Light medium clay; , Polyhedral; Rough-ped fabric; Dry; Weak
		consistence; 10-20%, Calcrete, coarse fragments; , Calcareous, , Soft segregations; Soil matrix is
		Highly calcareous; Field pH 6.9 (pH meter); Diffuse change to -
B23tkc	0.4 - 0.8 m	Dark reddish brown (5YR3/4-Moist); , 7.5YR82, 20-50% , Prominent; Light clay; ,
		Polyhedral; Rough-ped fabric; Dry; Firm consistence; 20-50%, Calcrete, coarse fragments; Many (20 - 50 %),
		Calcareous, ,
		Soft segregations; Soil matrix is Highly calcareous; Field pH 8.9 (pH meter);
B24tk	0.8 - 1.5 m	Reddish brown (5YR5/4-Moist); ; Light clay; Massive grade of structure; Dry; Strong
		consistence; Very
		many (50 - 100 %), Calcareous, , Soft segregations; Soil matrix is Highly calcareous;
		Field pH 9.2 (pH
		meter); Sharp change to -
Cm	1.5 - m	; Calcrete, Strongly cemented, Massive;

Morphological Notes

Observation Notes

Site Notes

At 30cm depth acid reaction FDK Soil samples up to 3rd Horizon pit was filtered with water. Brown L/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 - 0.05	5.1B	28B	4.91H	1.85	2.19	0.2	0.09J		9.15D	
	5.8H									
0.05 - 0.1	4.9B	16B	4.78H	1.61	1.63	0.28	0.18J		8.3D	
	5.6H									
0.1 - 0.2	6.3B	10B	6.25A	3.38	1.84	0.37			11.84D	
	7.2H									
0.2 - 0.4	7.1B	8B	5.95E	4.66	1.52	0.52		22B	12.65D	2.36
	8.1H									
0.4 - 0.8	8.2B	26B	4.6E	5.49	1.67	1.88		15B	13.64D	12.53
	9H									
0.8 - 1.1	8.4B	73B	1.44E	3.38	1.36	4.94		15B	11.12D	32.93
	9.6H									
1.1 - 1.5	8.5B	70B	1.04E	2.96	1.12	4.82		11B	9.94D	43.82
	9.6H									

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 - 0.05		2.56D		380B	0.176E				10.2
	9.5								
0.05 - 0.1		1.82D		310B	0.121E				10.6
	12.3								
0.1 - 0.2		0.5D		110B	0.037E				8.7
	28.2								
0.2 - 0.4		0.3D		94B	0.029E				7.1
	38.8								
0.4 - 0.8		0.18D		89B	0.02E				8
	42.4								
0.8 - 1.1		0.08D		62B	0.009E				13.5
	37.9								
1.1 - 1.5		0.11D		60B	0.011E				16.4
	36.3								

Laboratory Analyses Completed for this profile

15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMV	Exchangeable bases (Ca/Mg ratio) - 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
15C1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,
pretreatment for	soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15C1_MG	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for

soluble salts

15C1_NA	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
soluble salts	
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,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

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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
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
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)