**Project Name:** Moora Wongan Hills land resources survey

**Project Code:** MRA Observation ID: 1 Site ID: 0189

Agency Name: Agriculture Western Australia

Site Information

Desc. By: Mir Frahmand Locality:

Date Desc.: 12/08/96 Elevation: No Data Map Ref.: Rainfall: No Data Northing/Long.: 6707644 AMG zone: 50 Runoff: No Data

Easting/Lat.: 448441 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: Gently undulating plains <9m 1-3% Pattern Type: Rises

Morph. Type: Relief: No Data Elem. Type: Footslope Slope Category: No Data Aspect: Slope: 1 % 135 degrees

**Surface Soil Condition** 

**Erosion** 

**Soil Classification** 

**Australian Soil Classification: Mapping Unit:** N/A Haplic Petroclcic Red Chromosol **Principal Profile Form:** N/A **ASC Confidence: Great Soil Group:** N/A

Confidence level not specified

Site Disturbance

Vegetation

**Surface Coarse Fragments** 

**Profile Morphology** 

Α1 0 - 0.1 m Dark reddish brown (5YR3/4-Moist); ; Clayey coarse sand; , Granular; Field pH 6.6 (pH meter); Clear

change to -

B1t 0.1 - 0.25 m Red (2.5YR4/6-Moist); ; Sandy clay loam; Moderate grade of structure; Field pH 7.1 (pH

meter); Diffuse

change to -

B2t 0.25 - 0.45 m Dark red (2.5YR3/6-Moist);; Sandy clay loam; Moderate grade of structure; Field pH 7.8 (pH meter);

Diffuse change to -

Dark red (2.5YR3/6-Moist); Sandy clay loam; Moderate grade of structure; 20-50%, B22tc 0.45 - 0.7 m

coarse gravelly, 20-

60mm, subrounded, Calcrete, coarse fragments; Soil matrix is Slightly calcareous; Field

pH 8.6 (pH

Cm 0.7 - m; Calcrete, Moderately cemented, Nodular; Soil matrix is Highly calcareous; Field pH 8.8

(pH meter);

**Morphological Notes** 

**Observation Notes** 

Site Notes

Fine roots in profile.

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**Laboratory Test Results:** 

Depth 1:5 EC **Exchangeable Cations** CEC **ECEC** ESP Ηα Exchangeable Ca Na Acidity Mg dS/m Cmol (+)/kg % m

| 0 - 0.1     | 6B<br>7H     | 5B  | 1.87A | 0.6  | 0.56 | 0.06 |     | 3.09D  |       |
|-------------|--------------|-----|-------|------|------|------|-----|--------|-------|
| 0.1 - 0.25  | 6.2B<br>7.6H | 2B  | 4.08A | 1.28 | 0.35 | 0.22 |     | 5.93D  |       |
| 0.25 - 0.45 | 7.1B<br>8.8H | 3B  | 5.33E | 1.83 | 0.22 | 0.77 | 10B | 8.15D  | 7.70  |
| 0.45 - 0.7  | 8.1B<br>9.3H | 13B | 5.9E  | 2.71 | 0.23 | 1.98 | 12B | 10.82D | 16.50 |

| Depth               | CaCO3 | Organic<br>C | Avail.<br>P | Total<br>P | Total<br>N | Total<br>K | Bulk<br>Density | Partic<br>GV CS | le Size A | nalysis<br>Silt |
|---------------------|-------|--------------|-------------|------------|------------|------------|-----------------|-----------------|-----------|-----------------|
| m                   | %     | Clay<br>%    | mg/kg       | %          | %          | %          | Mg/m3           |                 | %         |                 |
| 0 - 0.1<br>7.4      |       | 0.56D        |             | 180B       | 0.046E     | Ē          |                 |                 |           | 5.3             |
| 0.1 - 0.25<br>19.4  |       | 0.24D        |             |            |            |            |                 |                 |           | 4.1             |
| 0.25 - 0.45<br>24.6 |       | 0.16D        |             |            |            |            |                 |                 |           | 4.5             |
| 0.45 - 0.7<br>23.4  | <2C   | 0.09D        |             |            |            |            |                 |                 |           | 8.8             |

## **Laboratory Analyses Completed for this profile**

| 15_NR_BSa<br>15_NR_CMR<br>15A1_CA<br>for soluble                                     | Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available Exchangeable bases (Ca/Mg ratio) - Not recorded Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment   |
|--|---|
|  | salts   |
| 15A1_CEC<br>15A1_K<br>for soluble  | 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  |
| TOT SOTUBIO  | salts   |
| 15A1_MG<br>for soluble   | Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment   |
|  | salts   |
| 15A1_NA<br>for soluble   | Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment   |
| 4504.04  | salts   |
| 15C1_CA  | Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5,   |
| pretreatment for   | soluble salts   |
| 15C1_CEC<br>15C1_K<br>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  |
| 00   |   |
| 15C1_MG  | Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for   |
| soluble salts  |   |
| 15C1_NA soluble salts  | Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for   |
| 15J BASES  | Sum of Bases  |
| 15L1_a Sum of Cations  | Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using  |
|  | and measured clay   |
| 15N1_a<br>15N1_b<br>18A1_NR<br>19B_NR<br>3_NR<br>4_NR<br>4B1<br>6A1_UC<br>7A1<br>9A3 | Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations Bicarbonate-extractable potassium (not recorded) Calcium Carbonate (CaCO3) - Not recorded Electrical conductivity or soluble salts - Not recorded pH of soil - Not recorded pH of 1:5 soil/0.01M calcium chloride extract - direct Organic carbon (%) - Uncorrected Walkley and Black method Total nitrogen - semimicro Kjeldahl, steam distillation Total Phosphorus (ppm) - semimicro kjeldahl, automated colour |
| 9B_NR  | Bicarbonate-extractable phosphorus (not recorded)   |

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9H1

Anion storage capacity 1000 to 2000u particle size analysis, (method not recorded) P10\_1m2m P10\_20\_75 P10\_75\_106 P10\_NR\_C P10\_NR\_Saa 20 to 75u particle size analysis, (method not recorded) 75 to 106u particle size analysis, (method not recorded)

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

P10\_NR\_Z P10\_NR\_Z P10106\_150 P10150\_180 Silt (%) - Not recorded

106 to 150u particle size analysis, (method not recorded) 150 to 180u particle size analysis, (method not recorded) P10180\_300 P10300\_600 180 to 300u particle size analysis, (method not recorded) 300 to 600u particle size analysis, (method not recorded) P106001000 600 to 1000u particle size analysis, (method not recorded)