Project Name: Irrigated Soils of the M.I.A., NSW

Project Code: Site ID: Observation ID: 1 C637b

Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: J. Loveday Locality: Approximately 7 kilometres west of Griffith.

Benerembah, NSW.

Date Desc.: 01/01/66 Elevation: No Data Map Ref.: 1:100000 Rainfall: No Data Northing/Long.: 145.95 Runoff: No Data Easting/Lat.: -34.28333333 Drainage: No Data

Geology

ExposureType: Conf. Sub. is Parent. Mat.: No Data Auger boring Geol. Ref.: No Data **Substrate Material:** No Data

Land Form

Rel/Slope Class: No Data Pattern Type: No Data No Data Morph. Type: No Data Relief: Slope Category: Elem. Type: No Data No Data Aspect: No Data Slope:

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A **Principal Profile Form:** Dr2.13 N/A

ASC Confidence: Red-brown earth **Great Soil Group:**

Confidence level not specified

Site Disturbance: Cultivation. Irrigated, past or present

Vegetation:

Surface Coarse Fragments:

Profile Morphology

0 - 0.01 m

0.01 - 0.1 m Brown (7.5YR4/3-Moist); ; Fine sandy clay loam; Very strong consistence;

0.1 - 0.25 m Dark reddish brown (5YR3/4-Moist); Dark yellowish brown (10YR3/4-Moist); ; Medium clay; ,

Angular blocky; Very strong consistence;

Dark reddish brown (5YR3/4-Moist); Dark yellowish brown (10YR3/4-Moist); ; Medium clay; , 0.25 - 0.35 m

Angular blocky; Very strong consistence; Very few (0 - 2 %), Calcareous, , Concretions;

0.35 - 0.9 m Reddish brown (5YR4/4-Moist); Reddish yellow (5YR6/6-Moist); ; Medium clay; Smooth-ped

fabric; , Calcareous, , Concretions;

Morphological Notes

Patchy accumulation of organic mat.
Rusty mottles present. Soil is hard and compact.

10YR34 occurs as stains. 10YR34 occurs as stains.

Shiny aggregate surfaces; carbonate concretions and powder.

Observation Notes

GSG = Transitional RBE.

Site Notes

Site a and b are no more than 10 to 20m apart

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Observation ID: 1

Laboratory Test Results:

| Depth | pН | 1:5 EC | | hangeable | e Cations K | Na E | Exchangeable Acidity | CEC | | ECEC | | ESP |
|---------|-------|--------------|-------------|-------------|----------------|------------|-------------------------|----------|--------------|------------|-----------------|-----------|
| m | | dS/m | Ca | Mg | | Cmol (+) | | | | | | % |
| 0 - 10 | 6A | 0.15A | | 4.3 | 1.3 | 0.3 | 7D | | | 20B | | |
| 10 - 20 | 7.1A | 0.06A | | | | | | | | | | |
| 20 - 30 | 7.9A | 0.06A | - | 12.8 | 1.4 | 1.6 | 2.4D | | | 29.8B | | |
| 30 - 40 | 8.1A | 0.12A | | | | | | | | | | |
| 40 - 60 | 8.9A | 0.3A | | | | | | | | | | |
| 60 - 80 | 9.1A | 0.42A | | | | | | | | | | |
| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Pa GV | rticle CS | Size FS | Analysi Silt | s Clay |
| m | % | % | mg/kg | % | % | % | Mg/m3 | • | | % | •• | J, |
| | | | | | | | _ | | | | | |
| 0 - 10 | | | | | | | 1.41 | | 13C | 46 | 11 | 30 |
| 10 - 20 | | | | | | | 1.53 | | | | | |
| 20 - 30 | 0.03B | | | | | | 1.45 | | 5C | 28 | 6 | 61 |
| 30 - 40 | | | | | | | 1.49 | | | | | |
| 40 - 60 | | | | | | | 1.53 | | | | | |
| 60 - 80 | | | | | | | 1.46 | | | | | |
| | | | | | | | | | | | | |
| Depth | COLE | | Grav | /imetric/Vo | lumetric V | Vater Cont | ents | | K s | at | K unsa | at |
| | | Sat. | 0.05 Bar | | 0.5 Bar | 1 Bar | 5 Bar 15 l | Bar | | | | |
| m | | | | g/ | g - m3/m3 | 3 | | | mm | /h | mm/h | l |
| 0 40 | | | | | | | 0.4 | 70 | | | | |
| 0 - 10 | | | | | | | 0.1 | /B | | | | |
| 10 - 20 | | | | | | | 0.0 | OD. | | | | |
| 20 - 30 | | | | | | | 0.2 | | | | | |
| 30 - 40 | | | | | | | 0.2 | | | | | |
| 40 - 60 | | | | | | | 0.2 | | | | | |
| 60 - 80 | | | | | | | 0.2 | 4B | | | | |

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Laboratory Analyses Completed for this profile

15_NR_H Hydrogen Cation - meq per 100g of soil - Not recorded

15A1_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 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

15J_H Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)

19B1 Carbonates - manometric 3A1 EC of 1:5 soil/water extract 4A1 pH of 1:5 soil/water suspension

5A1 Chloride - 1:5 soil/water extract, potentiometric titration

P10_NR_C
P10_NR_CS
Coarse sand (%) - Not recorded
Coarse sand (%) - Not recorded
P10_NR_FS
P10_NR_Z
P3A1
Clay (%) - Not recorded
Sint (%) - Not recorded
Silt (%) - Not recorded
Bulk density - g/cm3

P3B_GV_15 15 BAR Moisture g/g - Gravimetric using pressure plate

P6_LP Dispersion Index (Loveday and Pyle, 1973)