Project Name: RAC

Project Code: BAC Site ID: T484 Observation ID: 1

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

Site Information

On highway just north of Maitland Road turnoff. Desc. By: G.G. Murtha Locality: Date Desc.:

Elevation: 09/12/87 20 metres

Map Ref.: Sheet No.: 8063 1:100000 Rainfall:

Northing/Long.: 145.766666666667 Runoff: Moderately rapid -17.056944444444 Moderately well drained Easting/Lat.: Drainage:

Geology

ExposureType: No Data Conf. Sub. is Parent. Mat.: No Data

Substrate Material: Geol. Ref.: Unconsolidated material (unidentified) No Data

Land Form

Rel/Slope Class: Gently undulating plains <9m 1-Pattern Type: Alluvial fan

Morph. Type: Mid-slope Relief: No Data

Elem. Type: Fan Slope Category: Very gently sloped

Aspect: No Data Slope: 0.8 %

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification: **Mapping Unit:** N/A Mottled Magnesic Yellow Dermosol Gn3.71 **Principal Profile Form:**

ASC Confidence: Great Soil Group: Yellow podzolic

All necessary analytical data are available. soil

Site Disturbance: Complete clearing. Pasture, native or improved, but never cultivated

Vegetation:

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology 0 - 0.11 m Dark grevish brown (10YR4/2-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderately moist; Very firm consistence; Common, fine (1-2mm) roots; Gradual change to -R1 Yellowish brown (10YR5/4-Moist); ; Light medium clay; Moderate grade of structure, 5-10 mm, 0.11 - 0.28 m Subangular blocky; Smooth-ped fabric; Moderately moist; Very firm consistence; Common, fine (1-2mm) roots; Diffuse change to -Brownish yellow (10YR6/6-Moist); , 5YR68, 0-2% , 0-5mm, Faint; , 0-2% , 0-5mm, Faint; Medium B21 0.28 - 0.46 m heavy clay; Strong grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Very firm consistence; Few, fine (1-2mm) roots; Diffuse change to -B22 0.46 - 0.66 m Reddish yellow (7.5YR6/6-Moist); , 5YR68, 2-10% , 0-5mm, Faint; , 2-10% , 0-5mm, Faint; Medium heavy clay; Strong grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Very firm consistence; Common (10 - 20 %), Ferromanganiferous, Coarse (6 - 20 mm), Nodules; Few, fine (1-2mm) roots; Diffuse change to -Light yellowish brown (10YR6/4-Moist); , 5YR58, 10-20% , 0-5mm, Distinct; , 10-20% , 0-5mm, B23 0.66 - 0.84 m Distinct; Heavy clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Strong consistence; Few (2 - 10 %), Ferromanganiferous, Coarse (6 -20 mm), Nodules; Few, fine (1-2mm) roots;

 $Light\ yellowish\ brown\ (10YR6/4-Moist);\ ,\ 5YR58,\ 10-20\%\ ,\ 0-5mm,\ Distinct;\ ,\ 10-20\%\ ,\ 0-5mm,$ **B23** 0.84 - 1.15 m Distinct; Heavy clay; Strong grade of structure, 10-20 mm, Subangular blocky; Smooth-ped

fabric; Moderately moist; Strong consistence; Few (2 - 10 %), Ferromanganiferous, Coarse (6 -

20 mm), Nodules; Few, fine (1-2mm) roots; Diffuse change to -

1.15 - 1.44 m White (10YR8/1-Moist); , 10YR58, 20-50% , 5-15mm, Distinct; , 20-50% , 5-15mm, Distinct; **B**3

Medium heavy clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderately

moist; Firm consistence; Diffuse change to -

BC 1.44 - 1.8 m Yellowish brown (10YR5/6-Moist); , 10YR82, 20-50% , 5-15mm, Distinct; , 20-50% , 5-15mm,

Distinct; Sandy light clay; Massive grade of structure; Moderately moist; Firm consistence;

BC Yellowish brown (10YR5/6-Moist); , 10YR82, 20-50% , 5-15mm, Distinct; , 20-50% , 5-15mm, 1.8 - 2 m Distinct; Sandy light clay; Massive grade of structure; Moderately moist; Firm consistence:

Morphological Notes

Project Name: Project Code: Agency Name: BAC

BAC Site ID: T48
CSIRO Division of Soils (QLD) T484 Observation ID: 1

Observation Notes

Site Notes MERINGA

Project Name: Project Code: Agency Name: BAC

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Laboratory Test Results:

Depth m pH 1:5 EC Ca Mg Exchangeable Cations Ca Mg Exchangeable Cations Na Acidity Cmol (+)/kg Exchangeable Acidity Cmol (+)/kg CEC ECEC Ca Mg K Na Acidity Cmol (+)/kg CEC ECEC Ca Mg K Na Acidity Cmol (+)/kg CEC ECEC Ca Mg Exchangeable Acidity Cmol (+)/kg CEC ECEC Ca Mg Acidity Cmol (+)/kg Acidity Acid	0.67 = 0.87 0.47 = 0.87 0.57
0 - 0.11	1.25 0.67 0.87 0.47 0.87 0.57
8.9C 0.11 - 0.28	0.67 0.87 0.47 0.87 0.57 1.56
0.11 - 0.28 5.65A	= 0.87 0.47 = 0.87 0.57
0.28 - 0.46	0.47 0.87 0.57
0.46 - 0.66	0.87 0.57 1.56
3.5C 0.66 - 0.84 5.89A	0.57
0.66 - 0.84	1.56
4.1C 1.15 - 1.44 5.99A 0.008A	
1.15 - 1.44	1.22
144-18 614 0.0084 < 0.02H 167 0.03 0.03 0.76F 3.3A 2.5F	-
	0.91
1.8 - 2 5.94A 0.011A	
Depth CaCO3 Organic Avail. Total Total Total Bulk Particle Size	Analysis
C P P N K Density GV CS FS	Silt Clay
m % % mg/kg % % Mg/m3 %	-
0 - 0.11 2.18C 10B 0.04A 0.08A 2.11A 0 2A 2	21 44 32
0.11 - 0.28	8 45 34
	2 47 38
	21 42 35
	27 39 32
	3 51 52
	29 38 26
	35 26 20
1.8 - 2 0 5A 2	22 49 24
Depth COLE Gravimetric/Volumetric Water Contents K sat	K unsat
Sat. 0.05 Bar 0.1 Bar 0.5 Bar 1 Bar 5 Bar 15 Bar m g/g - m3/m3 mm/h	mm/h

0 - 0.11 0.11 - 0.28 0.28 - 0.46 0.46 - 0.66 0.66 - 0.84 0.84 - 1.15 1.15 - 1.44 1.44 - 1.8 1.8 - 2

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Agency Name: CSIRO Division of Soils (QLD)

Laboratory Analyses Completed for this profile

10A1 Total sulfur - X-ray fluorescence

12_XRF_CU
12_XRF_FE
12_XRF_MN
12_XRF_ZN
Total element - Cu(mg/kg) - X-Ray Fuoresence
Total element - Fe(%) - X-Ray Fuoresence
Total element - Mn(mg/kg) - X-Ray Fuoresence
Total element - Zn(mg/kg) - X-Ray Fuoresence

13C1_FE Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon

15A2_CEC Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts 15D1_CEC CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach

15E1_CA

Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble salts

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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titration to pH 8.4

15J1 Effective CEC

17A1 Total potassium - X-ray fluorescence

3A1 EC of 1:5 soil/water extract 4A1 pH of 1:5 soil/water suspension

6B3 Total organic carbon - high frequency induction furnace, infrared

7A2 Total nitrogen - semimicro Kjeldahl , automated colour

9A1 Total phosphorus - X-ray fluorescence

9G_BSES Available P (mg/kg) - Acid P - 0.005M H2SO4 (BSES)

9H1 Phosphate retention

P10_CF_C Clay (%) - Coventry and Fett pipette method

P10_CF_CS
P10_CF_S
P10_CF_S
P10_CF_S
P10_CF_Z
Coarse sand (%) - Coventry and Fett pipette method
Fine sand (%) - Coventry and Fett pipette method
Silt (%) - Coventry and Fett pipette method

P10_GRAV Gravel (%)