

**Project Name:** Balonne-Maranoa Soil Survey and Soil Moisture Profiles  
**Project Code:** B-M **Site ID:** F63 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

**Site Information**

<b>Desc. By:</b>	Gunn, RH	<b>Locality:</b>	Profile F63 located 2.4 km west of "Heather Downs" HS.
<b>Date Desc.:</b>	01/01/74	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>	Sheet No. : SG55-11 1:250000	<b>Rainfall:</b>	580
<b>Northing/Long.:</b>	148.0397856	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	-26.28839631	<b>Drainage:</b>	Imperfectly drained

**Geology**

<b>ExposureType:</b>	Auger boring	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	No Data

**Land Form**

<b>Rel/Slope Class:</b>	Gently undulating plains <9m 1-3%	<b>Pattern Type:</b>	Plain
<b>Morph. Type:</b>	No Data	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Plain	<b>Slope Category:</b>	No Data
<b>Slope:</b>	3 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Black Vertosol		<b>Principal Profile Form:</b>	Ug5.15
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Black earth
Analytical data are incomplete but reasonable confidence.			

**Site Disturbance:**

**Vegetation:** Low Strata - Tussock grass, , . \*Species includes - None recorded  
Tall Strata - Tree, 3.01-6m, Isolated clumps. \*Species includes - Acacia harpophylla, Eucalyptus ochrophloia

**Surface Coarse Fragments:** 0-2%, stony, 200-600mm, subrounded, Gravel

**Profile Morphology**

A1	0 - 0.15 m	Very dark greyish brown (10YR3/2-Moist); ; Medium clay; 2-5 mm, Granular; Loose consistence; 0-2%, medium gravelly, 6-20mm, Quartz, coarse fragments;
B21	0.15 - 0.36 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; , Subangular blocky; Firm consistence;
B22	0.36 - 0.9 m	Very dark grey (10YR3/1-Moist); ; Heavy clay; , Subangular blocky; Firm consistence; 0-2%, subrounded, Quartz, coarse fragments; Few (2 - 10 %), Calcareous, , Soft segregations;
B3	0.9 - 1.5 m	Strong brown (7.5YR5/6-Moist); ; Heavy clay; Massive grade of structure; Firm consistence; 0-2%, Shale, coarse fragments; Common (10 - 20 %), Gypseous, , ;

**Morphological Notes**

**Observation Notes**

**Site Notes**

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%
0 - 0.15	7.9A		29.9A	8.4	1.31				
0.15 - 0.36	8A	0.31A							
0.36 - 0.9	8.6A		41.9A	13.5	0.51				
0.9 - 1.5	7.2A	2.4A							

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**Laboratory Analyses Completed for this profile**

15A1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_MG	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
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
6A1	Organic carbon - Walkley and Black
9G1	Acid-extractable phosphorus - manual colour