

**Project Name:** Regional  
**Project Code:** REG      **Site ID:** T294      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Site Information**

<b>Desc. By:</b>	G.G. Murtha	<b>Locality:</b>	South of Mena Creek Road:3KM from hotel:
<b>Date Desc.:</b>	21/08/80	<b>Elevation:</b>	100 metres
<b>Map Ref.:</b>	Sheet No. : 8062    1:100000	<b>Rainfall:</b>	3500
<b>Northing/Long.:</b>	145.95	<b>Runoff:</b>	No runoff
<b>Easting/Lat.:</b>	-17.6666666666667	<b>Drainage:</b>	Well drained

**Geology**

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	QA	<b>Substrate Material:</b>	Unconsolidated material (unidentified)

**Land Form**

<b>Rel/Slope Class:</b>	Undulating low hills 30-90m 3-10%	<b>Pattern Type:</b>	Alluvial fan
<b>Morph. Type:</b>	Upper-slope	<b>Relief:</b>	40 metres
<b>Elem. Type:</b>	Fan	<b>Slope Category:</b>	Gently inclined
<b>Slope:</b>	10 %	<b>Aspect:</b>	0 degrees

**Surface Soil Condition (dry):**

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Acidic Dystrophic Red Kandosol	<b>Principal Profile Form:</b>	Gn2.14
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Red earth
All necessary analytical data are available.		

**Site Disturbance:** No effective disturbance. Natural

**Vegetation:**

**Surface Coarse Fragments:** No surface coarse fragments

**Profile Morphology**

A1	0 - 0.1 m	Reddish brown (5YR4/4-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Cast; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, Metamorphic rock (unidentified), coarse fragments; Diffuse change to -
A3	0.1 - 0.2 m	Yellowish red (5YR4/6-Moist); ; Clay loam; Weak grade of structure, 5-10 mm, Cast; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, Metamorphic rock (unidentified), coarse fragments; Diffuse change to -
B1	0.2 - 0.3 m	Red (2.5YR4/6-Moist); ; Light clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 2-10%, cobbly, 60-200mm, Metamorphic rock (unidentified), coarse fragments;
B1	0.3 - 0.6 m	Red (2.5YR4/6-Moist); ; Light clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, Metamorphic rock (unidentified), coarse fragments; Diffuse change to -
B21	0.6 - 0.9 m	Dark red (2.5YR3/6-Moist); ; Light clay (Heavy); Massive grade of structure; Earthy fabric; Moist; Weak consistence;
B22	0.9 - 1.2 m	Dark red (2.5YR3/6-Moist); ; Light medium clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence;
	1.2 - 1.5 m	Dark red (2.5YR3/8-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Weak consistence;
	1.5 - 1.8 m	Dark red (2.5YR3/8-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Weak consistence; 20-50%, cobbly, 60-200mm, Metamorphic rock (unidentified), coarse fragments;

**Morphological Notes**

**Observation Notes**

**Site Notes**

MENA CREEK

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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 - 0.1	5.1A	0.074A	1.21H	0.52	0.15	0.05	4.2F	2.7A 8.8C	6.1F	1.85 0.57
0.1 - 0.2	5A	0.05A								
0.2 - 0.3	5.2A	0.029A	<0.02H	<0.01	0.07	0.04	2.8F	1.72A 3.9C	2.9F	2.33 1.03
0.3 - 0.6	5.4A	0.026A								
0.6 - 0.9	5.4A	0.02A	<0.02H	<0.01	0.06	0.03	2.4F	1.43A 2.6C	2.5F	2.10 1.15
0.9 - 1.2	5.1A	0.02A								
1.2 - 1.5	5.2A	0.02A	<0.02H	<0.01	0.02	0.01	1.5F	1.5A	1.6F	0.67
1.5 - 1.8	5.3A	0.014A								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle		Size	Analysis	
								GV	CS		FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		2.64D	18B	0.035A	0.25A	1.03A			17A	48	9	26
0.1 - 0.2		1.53D							19A	43	9	30
0.2 - 0.3		1D	24B		0.13A			0	17A	43	10	30
0.3 - 0.6		0.69D						0	16A	44	9	32
0.6 - 0.9		0.32D	11B	0.025A	0.05A	1.06A						
0.9 - 1.2								<2	12A	44	9	36
1.2 - 1.5												
1.5 - 1.8								0	14A	37	14	36

[illegible]

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**Laboratory Analyses Completed for this profile**

10A1	Total sulfur - X-ray fluorescence
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 (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) by compulsive exchange, no pretreatment for soluble
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
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15G_C	Exchange acidity (hydrogen and aluminium) - meq per 100g of soil - By 1M KCl exch. acidity by 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
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H <sub>2</sub> SO <sub>4</sub> (BSES)
MIN_EC	Exchange Capacity - Mineralogy
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_CS	Coarse sand (%) - Coventry and Fett pipette method
P10_CF_FS	Fine sand (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method
P10_GRAV	Gravel (%)
XRD_C_Ch2	Chloritized 2:1 minerals - X-Ray Diffraction
XRD_C_Gb	Gibbsite - X-Ray Diffraction
XRD_C_Gt	Geothite - X-Ray Diffraction
XRD_C_II	Illite - X-Ray Diffraction
XRD_C_K2O	K <sub>2</sub> O - X-Ray Diffraction or Clay Fraction (air dry)
XRD_C_Ka	Kaolin - X-Ray Diffraction