

**Project Name:** EDEN BURNING STUDY AREA  
**Project Code:** 1000638 **Site ID:** EDB\_SA54 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

#### Site Information

<b>Desc. By:</b> P. Ryan	<b>Locality:</b>
<b>Date Desc.:</b> 08/09/87	<b>Elevation:</b> 280 metres
<b>Map Ref.:</b> Sheet No. : 8823 1:25000	<b>Rainfall:</b> No Data
<b>Northing/Long.:</b> 5877600 AMG zone: 55	<b>Runoff:</b> No Data
<b>Easting/Lat.:</b> 734700 Datum: AGD66	<b>Drainage:</b> Imperfectly drained

#### Geology

<b>ExposureType:</b> Soil pit	<b>Conf. Sub. is Parent. Mat.:</b> No Data
<b>Geol. Ref.:</b> Dgwa	<b>Substrate Material:</b> Sand

#### Land Form

<b>Rel/Slope Class:</b> No Data	<b>Pattern Type:</b> No Data
<b>Morph. Type:</b> Open depression (vale)	<b>Relief:</b> 0 metres
<b>Elem. Type:</b> Drainage depression	<b>Slope Category:</b> No Data
<b>Slope:</b> 13 %	<b>Aspect:</b> 135 degrees

**Surface Soil Condition (dry):** Firm

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b> N/A	<b>Mapping Unit:</b> N/A
<b>ASC Confidence:</b> Confidence level not specified	<b>Principal Profile Form:</b> Uc2.22
	<b>Great Soil Group:</b> N/A

**Site Disturbance:** No effective disturbance other than grazing by hoofed animals

#### Vegetation:

**Surface Coarse Fragments:** 10-20%, fine gravelly, 2-6mm, subangular, Quartz

#### Profile Morphology

O1	0 - 0.03 m	Organic Layer; ; Coarse sandy clay loam; Moist; Gradual, Wavy change to -
A11	0.03 - 0.23 m	Black (10YR2/1-Moist); ; Coarse sandy clay loam; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 4.5 (Raupach); Abundant, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Clear, Wavy change to -
A12	0.23 - 0.35 m	Very dark grey (10YR3/1-Moist); ; Clayey coarse sand; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Gradual, Broken change to -
A2c	0.35 - 0.46 m	Pale red (2.5YR7/2-Moist); ; Clayey coarse sand; Massive grade of structure; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Sand, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual, Wavy change to -
B1s	0.46 - 0.83 m	Yellowish brown (10YR5/4-Moist); , 10-20% , Distinct; Coarse sandy loam; Weak grade of structure, 10-20 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Sand, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, Sand, coarse fragments; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Nodules, strong, segregations;Common (10 - 20 %), Ferruginous, Very coarse (20 - 60 mm), Nodules, strong, segregations;Field pH 5.5 (Raupach); Few, fine (1-2mm) roots;
B2s	0.83 - 0.84 m	Yellowish brown (10YR5/8-Moist); , 10-20% , Distinct; Earthy fabric; Very firm consistence; Many (20 - 50 %), Ferruginous, Coarse (6 - 20 mm), Nodules, strong, segregations;Many (20 - 50 %), Ferruginous, Very coarse (20 - 60 mm), Nodules, strong, segregations;Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Common, medium (2-5mm) roots;

#### Morphological Notes

O1 High faunal activity in A1 (termites/ ants) & casts.

B1s Lower level is nominal. No lower depth given.

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Dense heath scrub. Thick A horizon over a well leached B horizon. Segregations in B1 & B2 are Fe-nodules formed around a core of granite.

**Site Notes**

Dp87

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**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP %
			Ca	Mg	K	Na Cmol (+)/kg				
0.03 - 0.11	3.43I		2.03F	1.76	0.25	0.14	0.38G			
	4.24H									
0.23 - 0.35	3.78I		0.37F	1.22	0.09	0.07	0.48G			
	5.04H									
0.33 - 0.41	4I		0.2F	0.61	0.09	0.07	0.26G			
	5.27H									
0.46 - 0.83	4.21I		0.17F	0.84	0.18	0.12	0.42G			
	5.6H									

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Particle CS	Size FS	Analysis Silt	Analysis Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0.03 - 0.11		7.63A		37F	<0.01E			16.8				
0.23 - 0.35		2.58A		20F	<0.01E			23.1				
0.33 - 0.41		0.87A		14F	<0.01E			30.1				
0.46 - 0.83		0.45A		20F	<0.01E			34.6				

[illegible]

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**Laboratory Analyses Completed for this profile**

15D1_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_K	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_MG	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_NA	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15G_C_AL2	Exchangeable aluminium - meq per 100g of soil - Aluminium By KCl extraction and detremination By AAS
4A_C_1	pH of soil - pH of 1:1 soil/water suspension
4C_C_1	pH of 1:1 soil/1M potassium chloride suspension
6A1	Organic carbon - Walkley and Black
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A_NR	Total element - P(%) - Not recorded
P10_GRAV	Gravel (%)