

**Project Name:** EDEN BURNING STUDY AREA  
**Project Code:** 1000638 **Site ID:** EDB\_SA30 **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>	21/07/87	<b>Elevation:</b>	270 metres
<b>Map Ref.:</b>	Sheet No. : 8823 1:25000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	5878120 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	735150 Datum: AGD66	<b>Drainage:</b>	Imperfectly drained

#### Geology

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

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	0 metres
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	5 %	<b>Aspect:</b>	135 degrees

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

#### 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>	Dy5.21
		<b>Great Soil Group:</b>	Yellow podzolic soil

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

#### Vegetation:

**Surface Coarse Fragments:** 20-50%, fine gravelly, 2-6mm, subangular, ; 20-50%, coarse gravelly, 20-60mm, subangular, ; 20-50%, cobbly, 60-200mm, subangular,

#### Profile Morphology

O1	0 - 0.02 m	Organic Layer; ; Coarse sandy clay loam; Wet; Gradual, Wavy change to -
A11	0.02 - 0.15 m	Black (10YR2/1-Moist); ; Coarse sandy clay loam; Weak grade of structure, 2-5 mm, Granular; Earthy fabric; Wet; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; 20-50%, cobbly, 60-200mm, subangular, dispersed, coarse fragments; 20-50%, fine gravelly, 2-6mm, angular, dispersed, coarse fragments; Field pH 4 (Raupach); Many, fine (1-2mm) roots; Many, coarse (>5mm) roots; Clear, Wavy change to -
A12	0.15 - 0.24 m	Very dark grey (10YR3/1-Moist); ; Coarse sandy clay loam; Weak grade of structure, 2-5 mm, Granular; Earthy fabric; Wet; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, coarse fragments; 20-50%, fine gravelly, 2-6mm, angular, dispersed, coarse fragments; Field pH 5 (Raupach); Many, fine (1-2mm) roots; Many, coarse (>5mm) roots; Clear, Smooth change to -
A2	0.24 - 0.42 m	Brown (10YR4/3-Moist); ; Coarse sandy clay; Weak grade of structure, 2-5 mm, Granular; Earthy fabric; Wet; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, coarse fragments; 20-50%, fine gravelly, 2-6mm, angular, dispersed, coarse fragments; Field pH 5 (Raupach); Few, fine (1-2mm) roots; Abrupt, Smooth change to -
B2	0.42 - 0.62 m	Yellowish brown (10YR5/6-Moist); , 20-50% , Distinct; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; 10-20%, coarse gravelly, 20-60mm, subangular, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5
C	0.62 - 0.62 m	;

#### Morphological Notes

O1	Thick colluvial A horizon with large granite/quartz gravel.
B2	Identified as 'CR' horizon.

#### Observation Notes

PM at 60cm, impermeable, causes subsoil flow in pit.

Site process also depositional.

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**Site Notes**

DP48 - flat ridge spur

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**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Cations			Exchangeable Acidity	CEC	ECEC	ESP %
				Mg	K	Na Cmol (+)/kg				
0.02 - 0.1	2.89I 3.78H		1.11F	1.25	0.33	0.27	2.11G			
0.32 - 0.4	3.84I 4.85H		0.08F	0.2	0.14	0.04	0.95G			
0.42 - 0.62	4.06I 5.1H		0.05F	1.07	0.44	0.09	1.2G			

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS	Silt Clay
0.02 - 0.1		9.29A		58F	<0.01E			22.2			
0.32 - 0.4		1.41A		24F	<0.01E			39.4			
0.42 - 0.62		0.97A		35F	<0.01E			28.5			

[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
2A1	Air-dry moisture content
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 (%)