

**Project Name:** EDEN BURNING STUDY AREA  
**Project Code:** 1000638 **Site ID:** EDB\_SA42 **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>	03/09/87	<b>Elevation:</b>	290 metres
<b>Map Ref.:</b>	Sheet No. : 8823 1:25000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	5876600 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	733490 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>	Upper-slope	<b>Relief:</b>	0 metres
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	10 %	<b>Aspect:</b>	225 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>	Dy5.41
		<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, Quartz

#### Profile Morphology

A1	0 - 0.05 m	Dark greyish brown (10YR4/2-Moist); ; Coarse sandy clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Wet; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Sandstone, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, Sandstone, coarse fragments; Field pH 5.5 (Raupach); Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Smooth change to -
A2c	0.05 - 0.2 m	Pale brown (10YR6/3-Moist); ; Coarse sandy loam; Moderate grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Wet; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Sandstone, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, Sandstone, coarse fragments; Field pH 5.5 (Raupach); Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Wavy change to -
B2	0.2 - 0.4 m	Brownish yellow (10YR6/6-Moist); ; Coarse sandy clay; Massive grade of structure; Earthy fabric; Wet; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 10-20%, coarse gravelly, 20-60mm, subangular, dispersed, Quartz, coarse fragments; Field pH 6 (Raupach); Few, medium (2-5mm) roots; Abrupt, Smooth change to -
2B2t	0.4 - 0.85 m	Strong brown (7.5YR5/8-Moist); , 20-50% , Distinct; Heavy clay; Strong grade of structure, 20-50 mm, Prismatic; Smooth-ped fabric; Wet; Very firm consistence; 2-10%, angular, undisturbed, Sand, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, prominent; Field pH 4.5 (Raupach); Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Irregular change to -
2B3t	0.85 - 1.2 m	Brownish yellow (10YR6/8-Moist); , 10-20% , Faint; Heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Wet; Firm consistence; 2-10%, angular, undisturbed, Sand, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, prominent; Field pH 4.5 (Raupach); Few, coarse (>5mm) roots;

#### Morphological Notes

A1	Dominant ped size also 10-20mm.	high faunal casting.
A2c	Dominant ped size also 10-20mm.	High faunal casting.

#### Observation Notes

Unsure about substrate lithology. Substrate is either Ord. sediments or aplite dyke. Below 40cm soil has little quartz &

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**Site Notes**

DP27 - broad hillcrest

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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	Acidity		%
						Cmol (+)/kg			
0 - 0.08	3.99I 4.99H		1.18F	0.66	0.12	0.04	0.59G		
0.05 - 0.2	4.07I 4.91H		0.34F	0.46	0.12	0.07	1.31G		
0.3 - 0.38	3.92I 5.21H		0.29F	1.86	0.2	0.1	0.25G		
0.4 - 0.85	3.8I 4.85H		0.06F	6.59	0.24	0.77	1.17G		
0.85 - 1.2	4.58I 5.3H		0.57F	10.89	0.33	1.43	0.21G		

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.08		3.02A		19F	<0.01E			15.8				
0.05 - 0.2		0.75A		15F	<0.01E			32.4				
0.3 - 0.38		0.49A		22F	<0.01E			24.3				
0.4 - 0.85		0.77A		25F	<0.01E			21.3				
0.85 - 1.2		0.65A		20F	<0.01E			18.7				

[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 (%)