

**Project Name:** EDEN BURNING STUDY AREA  
**Project Code:** 1000638 **Site ID:** EDB\_SA43 **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> | 260 metres   |
| <b>Map Ref.:</b>       | Sheet No. : 8823 1:25000 | <b>Rainfall:</b>  | No Data      |
| <b>Northing/Long.:</b> | 5876550 AMG zone: 55     | <b>Runoff:</b>    | No Data      |
| <b>Easting/Lat.:</b>   | 734080 Datum: AGD66      | <b>Drainage:</b>  | Well drained |

#### Geology

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

#### 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>           | 10 %      | <b>Aspect:</b>         | 180 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> | Uc2.21               |
|  |                                | <b>Great Soil Group:</b>       | Yellow podzolic soil |

**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 - 0.04 m    | Organic Layer; ; Coarse sandy loam; Moist; Abrupt, Wavy change to -   |
| A1  | 0.04 - 0.13 m | Very dark greyish brown (10YR3/2-Moist); ; Coarse sandy clay loam; Weak grade of structure, <2 mm, Granular; Earthy fabric; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Common, medium (2-5mm) roots;   |
| A2c | 0.13 - 0.32 m | Light yellowish brown (10YR6/4-Moist); ; Coarse sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Siltstone, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, Siltstone, coarse fragments; Field pH 4.5 (Raupach); Many, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Abrupt, Irregular change to - |
| A2c | 0.32 - 0.54 m | Light yellowish brown (10YR6/4-Moist); ; Coarse sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Earthy fabric; Moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Siltstone, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, Siltstone, coarse fragments; Field pH 5 (Raupach); Many, fine (1-2mm) roots; Many, medium (2-5mm) roots; Many, coarse (>5mm) roots; Abrupt, Smooth change to -      |
| B2  | 0.54 - 0.84 m | Strong brown (7.5YR5/6-Moist); ; Massive grade of structure; Earthy fabric; Firm consistence; 20-50%, fine gravelly, 2-6mm, subangular, dispersed, Sand, coarse fragments; 20-50%, coarse gravelly, 20-60mm, subangular, dispersed, Sand, coarse fragments; Field pH 4.5 (Raupach); Few, fine (1-2mm) roots; Few, medium (2-5mm) roots;   |

#### Morphological Notes

#### Observation Notes

Ord. sediments? are the substrate. But there is alot of granite influence in the colluvium. B1-B2 all seem to be colluvial with seda influencing B2. Sand gets coarser with increasing depth.

#### Site Notes

DP23 - southern hillslope above river.

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**Laboratory Test Results:**

| Depth<br>m  | pH             | 1:5 EC<br>dS/m | Ca    | Exchangeable Cations |      |                   | Exchangeable<br>Acidity | CEC | ECEC | ESP<br>% |
|-------------|----------------|----------------|-------|----------------------|------|-------------------|-------------------------|-----|------|----------|
|             |                |                |       | Mg                   | K    | Na<br>Cmol (+)/kg |                         |     |      |          |
| 0.04 - 0.12 | 4.33I<br>5.26H |                | 0.39F | 1.34                 | 0.27 | 0.11              | 0.53G                   |     |      |          |
| 0.34 - 0.42 | 4.04I<br>5.08H |                | 0.74F | 0.58                 | 0.21 | 0.09              | 0.36G                   |     |      |          |
| 0.54 - 0.84 | 3.99I<br>5.1H  |                | 0.47F | 0.86                 | 0.23 | 0.1               | 1.02G                   |     |      |          |

| 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        |             |             | %       |               |               |
| 0.04 - 0.12 |       | 5.07A     |          | 41F     | <0.01E  |         |              | 26.5        |             |         |               |               |
| 0.34 - 0.42 |       | 1.52A     |          | 25F     | <0.01E  |         |              | 30.2        |             |         |               |               |
| 0.54 - 0.84 |       | 1.1A      |          | 27F     | <0.01E  |         |              | 40.5        |             |         |               |               |

[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  |
| 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 (%)  |