

Site code<sup>1</sup> OTR426



Heathy vegetation south of Chapple Vale

**Location** Wangerrip

**Landform** Hills

**Geology** Palaeogene Wiridgil Gravel Member

**Element** Hillslope – mid slope

**Slope** 2%

**Aspect** North

Acidic, Lithosolic, Clastic Rudosol

Horizon	Depth (cm)	Description
A11	0–1	Black (10YR2/1); sandy loam; weak subangular blocky structure; abundant quartz gravel; clear boundary to:
A12	1–30	Very dark grey (10YR3/1); sandy loam; weak subangular blocky structure; abundant quartz gravel; clear boundary to:
C	30+	Light grey (10YR7/ 1); merging to white (10YR8/1); loamy coarse sand; apedal single grain structure; abundant quartz gravel and occasional stones.

<sup>1</sup> Source: Pitt AJ (1981) A Study of the land in the catchments of the Otway Range and adjacent plains. TC-14. Soil Conservation Authority. Kew, Victoria

## Analytical data<sup>2</sup>

Site OTR426 Horizon	Sample depth cm	pH		EC	NaCl	Ex Ca	Ex Mg	Ex K	Ex Na	Ex Al	Ex Acidity	FC -10kPa	PWP -1500kPa	KS	FS	Z	C
		H <sub>2</sub> O	CaCl <sub>2</sub>	dS/m	%	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	cmol <sub>c</sub> /kg	mg/kg	cmol <sub>c</sub> /kg	%	%	%	%	%	%
A11	0-1	4.4	N/R	0.094	0.009	4.7	2.0	0.3	0.3	N/R	N/R	N/R	N/R	68	13	4	6
A12	1-8	4.2	N/R	0.100	0.006	2.3	1.7	0.2	0.2	N/R	N/R	N/R	N/R	66	15	5	5
A12	8-15	4.2	N/R	0.052	0.005	1.4	0.8	0.1	0.1	N/R	N/R	N/R	N/R	70	19	4	3
A12	15-30	4.4	N/R	0.035	0.003	0.6	0.4	0.08	0.06	N/R	N/R	N/R	N/R	73	19	5	2
C	30-60	4.7	N/R	0.024	0.002	0.4	<0.05	0.07	0.03	N/R	N/R	N/R	N/R	68	24	4	1
C	120-180	5.5	N/R	0.022	0.001	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	80	14	3	2

## Management considerations

The deep sandy soils (associated with the sand and gravel parent lithology) generally have poor plant water/nutrient holding capacity. The soils are particularly prone to wind, sheet and rill erosion. The upper soil horizons may be hydrophobic (in conjunction with organic coatings) when dried out, taking time to reabsorb moisture. These soils do however drain rapidly. Acid soil pH is often associated with sandy surfaces due the lack of base minerals and may or may not have organic matter (humose or peaty surfaces). This acidic nature restricts the uptake of certain nutrients as well as intolerance for some plant species (due in part to the increasing mobilisation of aluminium and manganese).

<sup>2</sup> Source: Government of Victoria State Chemistry Laboratory.