

**Site Code<sup>1</sup> SW71**



View from site SW71 westwards along pipeline easement (SW70 is on the distant slope).

**Location** Foothills south of Colac; between Irrewillipie road and Colac-Lavers Hill road  
**Landform** Undulating low hills  
**Geology** Cretaceous Otway Group: volcanogenic sandstone  
**Element** Waxing upper slope  
**Slope** 8%  
**Aspect** West



Bleached-Vertic (and mottled), Magnesic, Brown CHROMOSOL

| Horizon | Depth (cm)    | Description  |
|---------|---------------|--|
| A1      | 0-20          | Dark grey (10YR4/1 moist), greyish brown (10YR5/2 dry), fine sandy loam; moderately pedal; weak to firm consistence; pH 5.5; boundary to:  |
| A2e     | 20-50/60      | Light brownish grey (2.5Y6/2 moist), conspicuously bleached (2.5Y8/1 dry); fine sandy loam; hard setting; common (<20%) fine ferromanganiferous gravel (mostly not magnetic) sporadic and not in thick layer; very firm consistence; clear to gradual change (incipient B1) to; pH 5.8; boundary to: |
| B21ss   | 50/60-100/120 | Dark yellowish brown (10YR3/4 moist and dry); many (~25%), faint, fine to coarse (5-20 mm) yellow brown/dark red mottles; heavy clay; coarse (50-120 mm) prismatic, parting to thick lenticular or angular blocky structure; slickensides; pH 6.0; diffuse yellower; boundary to:                    |
| C/B     | 100/120+      | Brownish yellow (10YR6/8 moist) to yellow (10YR8/8 dry); fine sandy with white (10YR8/1 moist) and very dark grey (5YR3/1 moist) ped faces; below 150 cm extremely hard to break with geopick; cemented ferruginised sandstone.  |

### Management considerations

Fine sandy loam topsoil overlying this swelling clay (80% clay in the subsoil) renders this profile subject to waterlogging. Water erosion is also a hazard for this soil. Chemical fertility is low and the soil is acidic – Aluminium toxicity to plant growth is likely to reduce pasture yields unless lime is applied.

<sup>1</sup> Source: MacEwan R, Imhof M (in press) Major Soils and Landscapes along the Southwest Gas Pipeline 1999. DPI

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

| Site SW71 | Sample depth | pH               |                   | EC    | NaCl | Ex Ca                 | Ex Mg                 | Ex K                  | Ex Na                 | Ex Al | Ex Acidity            | FC   | PWP    |          | KS   | FS   | Z    | C |
|-----------|--------------|------------------|-------------------|-------|------|-----------------------|-----------------------|-----------------------|-----------------------|-------|-----------------------|------|--------|----------|------|------|------|---|
|           |              | H <sub>2</sub> O | CaCl <sub>2</sub> |       |      |                       |                       |                       |                       |       |                       |      | -10kPa | -1500kPa |      |      |      |   |
| Horizon   | cm           |                  |                   | 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 | %    | %      | %        | %    | %    | %    |   |
| A1        | 0-10         | 5.5              | 4.7               | 0.12  | N/R  | 3.2                   | 2.1                   | 0.23                  | 0.35                  | 23    | 14                    | 33.5 | 11.4   | 9.5      | 38   | 26.5 | 18   |   |
| A2        | 30-50        | 5.8              | 4.7               | <0.05 | N/R  | 0.67                  | 0.96                  | <0.05                 | 0.17                  | 23    | 6.2                   | 19.1 | 6.8    | 7.8      | 44.5 | 24   | 23.5 |   |
| B21       | 65-85        | 6                | 4.9               | 0.1   | N/R  | 1.2                   | 12                    | 0.15                  | 1.4                   | 19    | 13                    | 43   | 27     | 1.4      | 11.4 | 7    | 79.5 |   |

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