

A. GENERAL DESCRIPTION:

Moderate slopes occur in the steep and rolling hills of the granitic areas. Yellow duplex soils are predominant where bleached clayey sands overlie a heavily mottled sandy clay loam or sandy clay. These mottles indicate impeded drainage. Occassionally boulders may outcrop or come close to the surface within this map unit. Uniform sandy loams, as found in units Dga and Dgb, will occur in these areas. This map unit is very susceptible to sheet erosion and highly susceptible to mass movement. Drainage lines that are present in this map unit have not been mapped as they were too small

SITE CHARACTERISTICS:

| Parent Material Age: | Devonian | Depth to Seas. Watertable: | >5.0m | | | |
|--|-----------------------|----------------------------|--------------------|--|--|--|
| Parent Material Lithology: | Granite/ granodiorite | Flooding Risk: | Nil | | | |
| Landform Pattern: | Steep/ rolling hills | Drainage: | Moderately drained | | | |
| Landform Element: | Hillslope | Rock Outcrop: | 0-5% | | | |
| Slope a) common: | 15% | Depth to Hard Rock: | >1.4m | | | |
| Slope b) range: | 11-20 | Present Land Use: | Pine plantation | | | |
| Potential Recharge to Groundwater: Low | | | | | | |
| Major Vegetation Species: | Blue Gum | | | | | |

LAND DEGRADATION:

| Land Degradation | Water Erosion | | Wind Erosion | Mass Movement | Salting | Acidification |
|------------------|---------------|-----------|--------------|------------------|----------|---------------|
| | sheet / rill | gully | | | | |
| Susceptibility | Very high | Moderate | Moderate | High | Low | Low |
| Incidence | Moderate | Low - Mod | Low | Low - Mod | Very low | Not available |

B. SOIL PROFILE

PROFILE DESCRIPTION

| FROF | ILE DESCRIPTION | |
|-----------|-----------------|--|
| A1 | 0-150mm | Very dark grey (10YR3/1) light sandy clay loam, weak subangular blocky structure, peds 5-10mm, rough fabric, moderately weak consistence, high organic matter, pH 4.4. Clear transition to: |
| A21 | 150-250mm | Greyish brown (10YR5/2) clayey sand, bleached (10YR7/3) when dry, apedal, sandy fabric, moderately weak consistence, common fine quartz gravels, pH 4.7. Clear transition to: |
| A22 | 250-405mm | Pale brown (10YR6/3) clayey sand, bleached (10YR8/3) when dry, a few medium sized faint orange mottles, apedal, sandy fabric, loose consistence, a few fine quartz gravels, pH 4.9. Clear transistion to; |
| B2 | 405-1180mm | Grey (10YR5/1) sandy clay loam, abundant medium sized distinct orange mottles, weak subangular blocky structure, peds 50-100mm, rough fabric, moderately firm consistence, common fine quartz and feldspar gravels, pH 5.5. Gradual transition to: |

CLASSIFICATION

Dy3.42 (major) Uc2.21 (minor) Factual Key (Northcote):

Australian Soil Classification: Eutrophic, Mottled-Subnatric, Grey Sodosol; non-

medium, gravelly, loamy/clay loamy, deep.

Unified Soil Group: CL

INTERPRETATION OF LABORATORY ANALYSIS

| Horizon | pH (CaCl ₂) | %Gravel | E.C. (salts) | Nutrient Status | Р | K | Al | Organic matter | Dispersibility |
|---------|----------------------------|---------|-----------------|--------------------|---|---|----|-------------------|----------------|
| A1 | 4.4 | 1.9 | VL | L | D | D | S | Н | L |
| A21 | 4.7 | 1.3 | VL | VL | D | D | S | VL | L |
| A22 | 4.9 | 2.5 | VL | VL | D | D | S | VL | Н |
| B2 | 5.5 | 2.0 | VL | L | D | D | S | VL | Н |
| В3 | 6.6 | 7.4 | VL | L | D | D | S | VL | M |

VL : Very low L:Low M:Moderate H: High VH : Very High D : Deficient S: Satisfactory

T: Toxic * see appendix D for analytical results ** : Strongly acidic N.A.: Not Available

SOIL PROFILE CHARACTERISTICS:

Permeability: Slow (average 46mm/day, range 21-67 mm/day)

Very high (224 mmH₂O) **Available Water Capacity:**

Linear Shrinkage (B horizon): Low (9%)

C. LAND CAPABILITY ASSESSMENT

| Land Use | Class | Major Limiting Feature(s)/Land Use |
|----------------------------------|--|---|
| Agriculture | C ₃ T ₄ S ₅ | Very susceptibile to sheet erosion |
| Effluent Disposal (septic tanks) | 4 | Low permeability |
| Farm Dams | 4 | Moderately steep slope, low suitability of subsoil, shallow depth to hard rock, highly susceptible to slope failure |
| Secondary Roads | 4 | Moderately steep slope, highly susceptibile to slope failure, highly dispersible subsoil |
| Rural Residential | 5 | Farm dams, building foundations |
| Small Farms | 5 | Agriculture |