

Appendix 3 - Soil Profile Descriptions

Stony red duplex soil (Profile 612) (Map ref.¹ 293831)

A	0-9 cm	Dark reddish brown (2.5YR3/4) when moist; loam; subangular blocky (15 mm); 60% basaltic stones; abrupt boundary.
B1	9-10 cm	Dark reddish brown (2.5YR3/4) when moist; light clay; strong subangular blocky (1 mm); 80% basaltic stones; diffuse boundary.
B2	40-50 cm	Dark reddish brown (5YR3/4) when moist; clay; strong angular blocky (1 mm); 90% basaltic stones; diffuse boundary.
C	50+ cm	Basalt.

Red calcareous sodic duplex soil, coarse structure (Profile 622) (Map ref. 290827)

A1	0-25 cm	Dark reddish brown (2.5YR3/4) when moist; loam; apedal; diffuse boundary.
A2	25-35 cm	Dark reddish brown (2.5YR3/4) when moist; clay loam; weak subangular blocky (8 mm); abrupt boundary.
B	35-75 cm	Dark brown (10YR3/3) when moist; medium clay; strong subangular blocky (2 mm); diffuse boundary.
B/C	75-90 cm	Dark reddish brown (2.5YR3/4) when moist; gravelly medium clay; weak subangular blocky (2 mm); lime present; 60% basaltic rock.

Yellow-brown calcareous sodic duplex soil, coarse structure (Profile 635) (Map ref. 309854)

A1	0-13 cm	Greyish yellow brown (10YR4/2) when moist; clay loam; weak subangular blocky (5-10 mm); abrupt boundary.
A2	13-31 cm	Greyish yellow brown (10YR5/2) when moist; clay loam; weak subangular blocky (5-15 mm); gradual boundary.
B1	31-48 cm	Dull yellowish brown (10YR4/3) when moist; clay; strong subangular blocky (20 mm); gradual boundary.
B2	48-160 cm	Olive brown (2.5YR4/4) when moist; heavy clay; strong subangular blocky (30 mm); gradual boundary.
B/C	160-180 cm	Dark greyish yellow (2.5YR5/2) when moist; clay; moderate angular blocky (30 mm).

Yellow-brown calcareous sodic duplex soil, coarse structure (Profile 636) (Map ref. 309854)

A	0-10 cm	Greyish yellow brown (10YR5/2) when moist; loam; weak angular blocky (20 mm); abrupt boundary.
B1	10-30 cm	Dark brown (10YR3/4) when moist; clay; strong angular blocky (10 mm); gradual boundary.
B2	30-140 cm	Olive brown (2.5YR4/4) when moist; heavy clay; strong angular blocky (30 mm); gradual boundary.

¹ Refers to Australian map grid on Melbourne 1:250 000

Mottled yellow, brown sodic duplex soil, coarse structure (Profile 659) (Map ref. 309830)

A1	0-15 cm	Brownish black (10YR2/2) when moist; coarse sandy loam; apedal; diffuse boundary.
A2	15-40 cm	Dark greyish yellow (2.5YR5/2) when moist; coarse sandy loam; apedal; abrupt boundary.
B1	40-80 cm	Greyish yellow brown (10YR4/2) when moist; mottled reddish brown (2.5YR4/6) and yellowish brown (10YR5/8); sandy clay; strong angular blocky (30 mm); diffuse boundary.
B2	80-120+ cm	Dull yellowish brown (10YR4/3) when moist; sandy clay; strong angular blocky (35 mm).

Red duplex soil (Profile 823) (Map ref. 306877)

A	0-15 cm	Very dark reddish brown (2.5YR2/4) when moist; gravelly clay loam; weak subangular blocky (6 mm); 10% of parent rock; clear boundary.
B	15-40 cm	Dark reddish brown (2.5YR3/4) when moist; clay; weak subangular blocky (4 mm); 4 ⁰ % of parent rock; clear boundary.
B/C	40-60+ cm	Dark reddish brown (2.5YR3/4) when moist; clay; weak subangular blocky (5 mm); 90% of parent rock.

Mottled red sodic duplex soil, fine structure (Profile 630) (Map ref. 321858)

A1	0-20 cm	Dark brown (10YR3/3) when moist; gravelly loam; apedal; clear boundary.
A2	20-60 cm	Dull yellowish brown (10YR4/3) when moist; gravelly clay loam; apedal; abrupt boundary.
B	60-103 cm	Orange (5 ^Y R6/6) when moist; mottled dark reddish brown (2.5YR3/6) and bright yellowish brown (10YR6/6); medium clay; strong angular blocky (1 mm); abrupt boundary.
B/C	103-120+ cm	Dull orange (5YR6/4) when moist; mottled reddish brown (10YR4/4) and light grey (5YR8/2); medium clay; strong angular blocky (4 mm).

Black clay soil, uniform texture, coarse structure (Profile 825) (Map ref. 326837)

A	0-60 cm	Black (10YR2/1) when moist; heavy clay; strong angular blocky (3 mm) at surface.
C	60+ cm	Basalt

Grey calcareous sodic clay soil, uniform texture, coarse structure (Profile 653) (Map ref. 293823)

A0	3-0 cm	Decomposing leaf litter; abrupt boundary.
B1	0-110 cm	Dull yellowish brown (10YR5/3) when moist; medium clay; strong angular blocky (40 mm); presence of buckshot; lime increasing with depth.
B2	110-120+ cm	Pale brown (10YR6/3) when moist; medium clay; strong angular blocky (40 mm); presence of buckshot and lime.

Red gradational soil, weak structure (Profile 624) (Map ref. 299864)

A	0-40 cm	Dark reddish brown (5YR3/4) when moist; clay loam; apedal; diffuse boundary.
B	40-80 cm	Dark reddish brown (5YR3/4) when moist; light clay; weak subangular blocky (2 mm); 3% buckshot gravel (2 mm); diffuse boundary.
B/C	80-120+ cm	Brown (7.5YR4/4) when moist; gravelly clay; strong subangular blocky (3 mm); 75% weathered basalt (20 mm).

Shallow stony red gradational soil (Profile 632) (Map ref. 326837)

A1	0-14 cm	Brownish black (10YR3/2) when moist; gravelly loam; apedal; abrupt boundary.
A2	14-40 cm	Dark reddish brown (2.5YR3/6) when moist; gravelly loam; apedal; 7% basalt; gradual boundary.
B	40-65 cm	Dark reddish brown (2.5YR3/6) when moist; gravelly clay; weak subangular blocky (5 mm); 80% basalt; gradual boundary.
C	65+ cm	Basalt.

Red gradational soil, fine structure (Profile 840) (Map ref. 345846)

A	0-7 cm	Dark reddish brown (5YR3/4) when moist; loam; apedal; diffuse boundary.
B1	7-50 cm	Reddish brown (5YR4/6) when moist; clay loam; weak subangular blocky (4 mm); diffuse boundary.
B2	50-120+ cm	Dark reddish brown (2.5YR3/6) when moist; clay; strong angular blocky (2 mm)

Shallow stony gradational soil (Profile 814) (Map ref. 279851)

A1	0-3 cm.	Brownish black (10YR3/1) when moist; loam; apedal; clear boundary.
A2	3-10 cm	Dull yellowish brown (10YR5/3) when moist; light clay; weak subangular blocky (5 mm); 1% gravel; diffuse boundary.
B1	10-30 cm	Orange (7.5YR6/6) when moist; medium clay; weak subangular blocky (4 mm); diffuse boundary.
B2	31-48 cm	Orange (7.5YR6/6) when moist; mottled dull yellowish brown (10YR5/3); medium clay; strong subangular blocky (5 mm); 1% parent rock; abrupt boundary.
B/C	48-90+ cm	Bright yellowish brown (10YR6/8) when moist; clay; weak subangular blocky (4 mm); 35% weathered parent material.

Mottled yellow, brown gradational soil, fine structure (Profile 815) (Map ref. 278851)

A1	0-20 cm	Brownish black (10YR2/2) when moist; light clay; strong subangular blocky (5 mm); diffuse boundary.
A2	20-40 cm	Greyish yellow brown (10YR4/2) when moist; clay; weak subangular blocky (2 mm); gradual boundary.
B1	40-65 cm	Dull yellowish brown (10YR5/3) when moist; mottled grey (10YR5/1); clay; weak subangular blocky (4 mm); diffuse boundary.
B2	65-120 cm	Yellowish brown (10YR5/6) when moist; medium clay; strong subangular blocky (2 mm).

Mottled yellow, brown gradational soil, fine structure (Profile 613) (Map ref. 324858)

A1	0-18 cm	Brownish black (10YR2/2) when moist; loam; apedal; diffuse boundary.
A2	18-34 cm	Brownish grey (10YR4/1) when moist; clay loam; apedal; diffuse boundary.
B	34-120 cm	Brown 10YR4/4 when moist; mottled yellowish brown (10YR5/8); light clay; strong subangular blocky (1 mm).

Mottled brown calcareous sodic gradational soil, coarse structure (Profile 645) (Map ref. 294848)

A	0-36 cm	Black (10YR2/1) when moist; light clay; strong subangular blocky (25 mm); diffuse boundary.
B1	36-55 cm	Brownish black (10YR2/2) when moist; mottled dull yellowish brown (10YR4/3); clay; strong angular blocky (20 mm); 1% buckshot (4 mm); clear boundary.
B2	55-105 cm	Brownish black (10YR2/2) when moist; mottled black (10YR2/1); medium clay; strong angular blocky (4 mm); 3% buckshot (4 mm); diffuse boundary.
B/c	105-120 cm	Dull yellowish brown (10YR4/3) when moist; mottled yellowish brown (10YR5/6) and brownish black (10YR3/1); heavy clay; strong angular blocky (3 mm); 4% gravel (5 cm).