

**HELSTON LOCAL PLAN
SOIL PIT DESCRIPTIONS**

Pit No 1

Location: 98 metres altitude; crest top location; 2° south-west facing slope; horizon to south, south-west and west is at similar/lower height; open to strong coastal winds from south, south-west and west; clear evidence of strong wind pruning on boundary trees and bushes at a height of 10'; 5 km inland.

Permanent Grass.

Topsoil: 0-17 cm
Medium Clay Loam
10YR33
Approximately 2% stone (less than 2 cm; visual)
No evidence of wetness

Upper Subsoil: 17-53 cm
Heavy Clay Loam
10YR33 (slight visual colour change from topsoil)
Approximately 2% stone (less than 2 cm; visual)
Structure (from 35 cm): Weakly Developed
 Fine Subangular Blocky
 Friable

Porous
Good root penetration
No evidence of wetness

Lower Subsoil: 53-80+
Clay
10YR64 (pale)
Approximately 10-15% stone (less than 2 cm; visual)
No evidence of wetness
Structure = Weakly developed
 Medium Subangular Blocky
 Friable

Porous
Good root penetration

Pit dug to 80 cm; augering to 120 cm revealed the continuation of the lower subsoil with stone contents increasing to 20%.

Wetness Class I

ALC Grade = 3A
(Limitation: Exposure)

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Pit No 2

Location: 97 metres altitude; upper crest slopes, south-west facing slope; horizons to south, south west and west at similar/lower height; clear evidence of wind-pruning on field boundary vegetation (at 8-10'); 5 km inland; ploughed field.

Topsoil: 0-20 cm
Medium Clay Loam
10YR33
No evidence of wetness
2% stone (less than 2 cm; visual)

Upper Subsoil: 20-43 cm
Heavy Clay Loam
10YR43
No evidence of wetness
2% stone (less than 2 cm; visual)
Very porous
Structure = (from 35 cm)
Weakly developed
Fine Subangular Blocky
Very Friable

Lower Subsoil: 43-85+ cm
Silty Clay
10YR64; pale
No evidence of wetness (beyond pale matrix colour)
2% stone (less than 2 cm; visual)
Very porous
Structure = Moderately developed
Coarse Angular Blocky
Friable
(No clear ped skins or paler ped faces)

Soil Pit dug to 85 cm; augered to 110 cm (then Impenetrable)

Wetness Class I

ALC Grade = 3A
(Limitation: Exposure)

Pit No 3

Location: 72 metres altitude; upper crest slopes; south-facing slope; 6° gradient; valley floor at 55 m below; horizon to south at similar altitude; 5 km inland; recent re-seed.

Topsoil: 0-26 cm
Medium Clay Loam
10YR33
No evidence of wetness
2% stone (less than 2 cm; visual)

Upper Subsoil: 26-60 cm
Clay
10YR53; pale
No evidence of wetness (beyond pale matrix colour)
2% stone (less than 2 cm; visual)
Very porous
Structure = (from 35 cm)
Moderately developed
Coarse Subangular Blocky
Friable
(No clear ped skins or paler ped faces)

Lower Subsoil: 60-80+ cm
Clay
2.5Y52 and 10YR54; the 2.5Y52 reflects the weathered fragments of slate.
No evidence of wetness
20% soft weathered slate
Very porous
Structure = Moderately developed
Coarse Subangular Blocky
Friable
(No clear ped skins or paler ped faces)
Breaks down readily to Medium Subangular Blocky

Soil Pit dug to 80 cm; augering to 100 cm reveals 2.5Y54 Clay with +30% slate from 85 cm.

Wetness Class I

ALC Grade = 3A
(Limitation: Exposure)