

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. **Map units in red represent the soils having the greatest potential for caving when excavated.**)

Map symbol and soil name	ENG - Shallow Excavations
AdA: ALDINO-----	1.000 (1.000-1.000) Very limited *+ 1.000 (1.000-1.000) Depth to saturated zone 0.100 Cutbanks cave
AdB: ALDINO-----	1.000 (1.000-1.000) Very limited *+ 1.000 (1.000-1.000) Depth to saturated zone 0.100 Cutbanks cave
AdC: ALDINO-----	1.000 (1.000-1.000) Very limited *+ 1.000 (1.000-1.000) Depth to saturated zone 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
AsB: ALDINO-----	1.000 (1.000-1.000) Very limited *+ 1.000 (1.000-1.000) Depth to saturated zone 0.100 Cutbanks cave
Av: ALLUVIAL LAND---	1.000 Very limited *+ 1.000 Depth to saturated zone 0.600 Flooding 0.100 Cutbanks cave
BaA: BAILE-----	1.000 Very limited *+ 1.000 Depth to saturated zone 0.100 Cutbanks cave
BaB: BAILE-----	1.000 Very limited *+ 1.000 Depth to saturated zone 0.100 Cutbanks cave
BeA: BELTSVILLE-----	1.000 Very limited *+ 1.000 Cutbanks cave 1.000 (1.000-1.000) Depth to saturated zone
BeB: BELTSVILLE-----	1.000 Very limited *+ 1.000 Cutbanks cave 1.000 (1.000-1.000) Depth to saturated zone
BeC: BELTSVILLE-----	1.000 Very limited *+ 1.000 Cutbanks cave 1.000 (1.000-1.000) Depth to saturated zone
BrC2: BRANDYWINE-----	1.000 Very limited *+ 1.000 Cutbanks cave 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.013 (0.000-1.000) Content of large stones (No large stone limitation to Content of large stones)
BrD3: BRANDYWINE-----	1.000 Very limited *+ 1.000 Slope 1.000 Cutbanks cave

Map symbol and soil name	ENG - Shallow Excavations
	0.013 (0.000-1.000) Content of large stones (No large stone limitation to Content of large stones)
BrE3: BRANDYWINE-----	1.000 Very limited *+ 1.000 Slope 1.000 Cutbanks cave 0.013 (0.000-1.000) Content of large stones (No large stone limitation to Content of large stones)
CcA: CHESTER-----	0.100 Somewhat limited *+ 0.100 Cutbanks cave
CcB2: CHESTER-----	0.100 Somewhat limited *+ 0.100 Cutbanks cave
CcC2: CHESTER-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
CgB2: CHESTER-----	0.100 Somewhat limited *+ 0.100 Cutbanks cave
CgC2: CHESTER-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
CgD2: CHESTER-----	1.000 Very limited *+ 1.000 Slope 0.100 Cutbanks cave
ChB2: CHILLUM-----	1.000 Very limited *+ 1.000 Cutbanks cave
CkC2: CHILLUM-----	1.000 Very limited *+ 1.000 Cutbanks cave
NESHAMINY-----	0.100 (0.100-0.172) Somewhat limited *+ 0.100 Cutbanks cave
CrE: CHROME-----	1.000 Very limited *+ 1.000 Depth to hard bedrock 1.000 Slope 0.100 Cutbanks cave
Cu: CODORUS-----	1.000 Very limited *+ 1.000 Depth to saturated zone 1.000 Cutbanks cave 0.600 Flooding
Cv: COMUS-----	1.000 Very limited *+ 1.000 Cutbanks cave 0.600 Flooding
Cx: CUT AND FILL LAND-----	Not Rated Not Rated; bulk density 0.000-1.000 Not too clayey to Too clayey * 0.100 Cutbanks cave *+

Map symbol and soil name	ENG - Shallow Excavations
DcA:	
DELANCO-----	1.000 (1.000-1.000) Very limited *+ 1.000 (1.000-1.000) Depth to saturated zone 0.100 Cutbanks cave
DcB:	
DELANCO-----	1.000 (1.000-1.000) Very limited *+ 1.000 (1.000-1.000) Depth to saturated zone 0.100 Cutbanks cave
EhB2:	
ELIOAK-----	0.125 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.125 (0.000-1.000) Too clayey (Not too clayey to Too clayey) 0.100 Cutbanks cave
EhC2:	
ELIOAK-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.125 (0.000-1.000) Too clayey (Not too clayey to Too clayey) 0.100 Cutbanks cave
En:	
ELKTON-----	1.000 Very limited *+ 1.000 Depth to saturated zone 0.100 Cutbanks cave
EsA:	
ELSINBORO-----	0.156 Somewhat limited *+ 0.156 Depth to saturated zone 0.100 Cutbanks cave
EsB2:	
ELSINBORO-----	0.156 Somewhat limited *+ 0.156 Depth to saturated zone 0.100 Cutbanks cave
EsC2:	
ELSINBORO-----	0.156 (0.156-0.163) Somewhat limited *+ 0.156 Depth to saturated zone 0.100 Cutbanks cave
EvC:	
EVESBORO-----	1.000 Very limited *+ 1.000 Cutbanks cave 0.163 (0.000-1.000) Slope (No slope limitation to Slope)
Fs:	
FALLSINGTON-----	1.000 Very limited *+ 1.000 Depth to saturated zone 1.000 Cutbanks cave
GcB2:	
GLENEIG-----	0.100 Somewhat limited *+ 0.100 Cutbanks cave
GcC2:	
GLENELG-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
GcC3:	
GLENELG-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
GcD2:	
GLENELG-----	1.000 Very limited *+ 1.000 Slope 0.100 Cutbanks cave

Map symbol and soil name	ENG - Shallow Excavations
GcD3:	
GLENELG-----	1.000 Very limited ** 1.000 Slope 0.100 Cutbanks cave
GgB2:	
GLENELG-----	0.100 Somewhat limited ** 0.100 Cutbanks cave
GgC2:	
GLENELG-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) ** 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
GgC3:	
GLENELG-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) ** 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
GgD2:	
GLENELG-----	1.000 Very limited ** 1.000 Slope 0.100 Cutbanks cave
GgD3:	
GLENELG-----	0.100 Somewhat limited ** 0.100 Cutbanks cave
GnA:	
GLENVILLE-----	1.000 (0.955-1.000) Very limited (Somewhat limited to Very limited) ** 1.000 (0.955-1.000) Depth to saturated zone 0.100 Cutbanks cave
GnB:	
GLENVILLE-----	1.000 (0.955-1.000) Very limited (Somewhat limited to Very limited) ** 1.000 (0.955-1.000) Depth to saturated zone 0.100 Cutbanks cave
Hb:	
HATBORO-----	1.000 Very limited ** 1.000 Depth to saturated zone 1.000 Cutbanks cave 0.800 Flooding
JpB:	
JOPPA-----	1.000 Very limited ** 1.000 Cutbanks cave
JpC:	
JOPPA-----	1.000 Very limited ** 1.000 Cutbanks cave
KeB:	
KELLY-----	1.000 Very limited ** 1.000 Cutbanks cave 1.000 (1.000-1.000) Depth to saturated zone 0.420 Depth to hard bedrock
KeC2:	
KELLY-----	1.000 Very limited ** 1.000 Depth to saturated zone 1.000 Cutbanks cave 0.633 (0.000-1.000) Slope (No slope limitation to Slope)
KfD:	
KELLY-----	0.959 (0.420-1.000) Somewhat limited (Somewhat limited to Very limited) ** 0.959 (0.000-1.000) Slope (No slope limitation to Slope) 0.420 Depth to hard bedrock 0.100 Cutbanks cave

Map symbol and soil name	ENG - Shallow Excavations
KpA: KEYPORT-----	1.000 Very limited *+ 1.000 Cutbanks cave 0.986 (0.612-1.000) Depth to saturated zone
KpB: KEYPORT-----	1.000 Very limited *+ 1.000 Cutbanks cave 0.986 (0.612-1.000) Depth to saturated zone
KrA: KINKORA-----	1.000 Very limited *+ 1.000 Depth to saturated zone 0.125 (0.000-0.875) Too clayey (Not too clayey to Too clayey) 0.100 Cutbanks cave
KrB: KINKORA-----	1.000 Very limited *+ 1.000 Depth to saturated zone 0.125 (0.000-0.875) Too clayey (Not too clayey to Too clayey) 0.100 Cutbanks cave
LeB2: LEGORE-----	1.000 Very limited *+ 1.000 Cutbanks cave
LeC2: LEGORE-----	1.000 Very limited *+ 1.000 Cutbanks cave 0.633 (0.000-1.000) Slope (No slope limitation to Slope)
LeD2: LEGORE-----	1.000 Very limited *+ 1.000 Slope 1.000 Cutbanks cave
LeE: LEGORE-----	1.000 Very limited *+ 1.000 Slope 1.000 Cutbanks cave
LfC: LEGORE-----	1.000 Very limited *+ 1.000 Cutbanks cave
LfD: LEGORE-----	1.000 Very limited *+ 1.000 Slope 1.000 Cutbanks cave
LfE: LEGORE-----	1.000 Very limited *+ 1.000 Slope 1.000 Cutbanks cave
LgC3: LEGORE-----	1.000 Very limited *+ 1.000 Cutbanks cave 0.633 (0.000-1.000) Slope (No slope limitation to Slope)
LgD3: LEGORE-----	1.000 Very limited *+ 1.000 Slope 1.000 Cutbanks cave
Lr: LEONARDTOWN----	1.000 Very limited *+ 1.000 Depth to saturated zone 0.500 (0.000-0.500) Depth to dense layer (No dense layer limitation to Depth to dense layer) 0.100 Cutbanks cave

Map symbol and soil name	ENG - Shallow Excavations
LyB: LOAMY AND CLAYEY LAN-----	Not Rated
	Not Rated; bulk density 0.100 Cutbanks cave
LyD: LOAMY AND CLAYEY LAN-----	Not Rated
	Not Rated; bulk density 0.163 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
LyE: LOAMY AND CLAYEY LAN-----	Not Rated
	Not Rated; bulk density 1.000 Slope 0.100 Cutbanks cave
MbB2: MANOR-----	0.100 Somewhat limited ** 0.100 Cutbanks cave
MbC2: MANOR-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) ** 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
MbC3: MANOR-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) ** 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
MbD2: MANOR-----	1.000 Very limited ** 1.000 Slope 0.100 Cutbanks cave
MbD3: MANOR-----	1.000 Very limited ** 1.000 Slope 0.100 Cutbanks cave
McB2: MANOR-----	0.100 Somewhat limited ** 0.100 Cutbanks cave
McC2: MANOR-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) ** 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
McC3: MANOR-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) ** 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave
McD2: MANOR-----	1.000 Very limited ** 1.000 Slope 0.100 Cutbanks cave
McD3: MANOR-----	1.000 Very limited ** 1.000 Slope 0.100 Cutbanks cave
MdE: MANOR-----	1.000 Very limited ** 1.000 Slope 0.100 Cutbanks cave

Map symbol and soil name	ENG - Shallow Excavations
MfE:	
MANOR-----	1.000 Very limited *+ 1.000 Slope 0.100 Cutbanks cave
MgC:	
GLENELG-----	0.100 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.100 Cutbanks cave 0.041 (0.000-1.000) Slope (No slope limitation to Slope)
MANOR-----	0.100 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.100 Cutbanks cave 0.041 (0.000-1.000) Slope (No slope limitation to Slope)
MgD:	
GLENELG-----	1.000 Very limited *+ 1.000 Slope 0.100 Cutbanks cave
MANOR-----	1.000 Very limited *+ 1.000 Slope 0.100 Cutbanks cave
MkA:	
MATAPEAKE-----	0.100 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.100 Cutbanks cave
MkB:	
MATAPEAKE-----	0.100 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.100 Cutbanks cave
MLA:	
MATTAPEX-----	1.000 Very limited *+ 1.000 Cutbanks cave 1.000 (0.955-1.000) Depth to saturated zone
MLB:	
MATTAPEX-----	1.000 Very limited *+ 1.000 Cutbanks cave 1.000 (0.955-1.000) Depth to saturated zone
MsA:	
MON TALTO-----	0.100 (0.100-0.875) Somewhat limited *+ 0.100 Cutbanks cave 0.031 (0.000-0.875) Too clayey (Not too clayey to Too clayey)
MsB2:	
MON TALTO-----	0.100 (0.100-0.875) Somewhat limited *+ 0.100 Cutbanks cave 0.031 (0.000-0.875) Too clayey (Not too clayey to Too clayey)
MsC2:	
MON TALTO-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave 0.031 (0.000-0.875) Too clayey (Not too clayey to Too clayey)
NeA:	
NESHAMINY-----	0.100 (0.100-0.172) Somewhat limited *+ 0.100 Cutbanks cave
NeB2:	
NESHAMINY-----	0.100 (0.100-0.172) Somewhat limited *+ 0.100 Cutbanks cave
NeC2:	
NESHAMINY-----	0.633 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.100 Cutbanks cave

Map symbol and soil name	ENG - Shallow Excavations
NsC:	
MONTALTO-----	0.100 (0.100-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.100 Cutbanks cave 0.031 (0.000-0.875) Too clayey (Not too clayey to Too clayey)
NESHAMINY-----	0.609 (0.609-1.000) Somewhat limited (Somewhat limited to Very limited) *+ 0.609 Depth to hard bedrock 0.100 Cutbanks cave
NsD:	
MONTALTO-----	1.000 Very limited *+ 1.000 Slope 0.100 Cutbanks cave 0.031 (0.000-0.875) Too clayey (Not too clayey to Too clayey)
NESHAMINY-----	1.000 Very limited *+ 1.000 Slope 0.609 Depth to hard bedrock 0.100 Cutbanks cave
NsE:	
MONTALTO-----	1.000 Very limited *+ 1.000 Slope 0.100 Cutbanks cave 0.031 (0.000-0.875) Too clayey (Not too clayey to Too clayey)
NESHAMINY-----	1.000 Very limited *+ 1.000 Slope 0.609 Depth to hard bedrock 0.100 Cutbanks cave
Ot:	
OTHELLO-----	1.000 Very limited *+ 1.000 Depth to saturated zone 1.000 Cutbanks cave
Sa:	
SAND AND GRAVEL PITS-----	Not Rated Not Rated; bulk density 1.000 Cutbanks cave *+
ShB2:	
SASSAFRAS-----	1.000 Very limited *+ 1.000 Cutbanks cave
ShC2:	
SASSAFRAS-----	1.000 Very limited *+ 1.000 Cutbanks cave
S1B2:	
SASSAFRAS-----	1.000 Very limited *+ 1.000 Cutbanks cave
S1C2:	
SASSAFRAS-----	1.000 Very limited *+ 1.000 Cutbanks cave
SsD:	
JOPPA-----	1.000 Very limited *+ 1.000 Cutbanks cave 0.837 (0.163-1.000) Slope
SASSAFRAS-----	1.000 Very limited *+ 1.000 Cutbanks cave 0.837 (0.163-1.000) Slope
SsE:	
JOPPA-----	1.000 Very limited *+ 1.000 Slope 1.000 Cutbanks cave

Map symbol and soil name	ENG - Shallow Excavations
SASSAFRAS-----	1.000 Very limited ** 1.000 Slope 1.000 Cutbanks cave
St: STONY LAND-----	1.000 Very limited ** 1.000 Slope 0.100 Cutbanks cave
Sw: SWAMP-----	1.000 Very limited ** 1.000 Depth to saturated zone 1.000 Cutbanks cave 1.000 (0.000-1.000) Content of organic matter (No organic matter limitation to Content of organic matter)
Tm: TIDAL MARSH-----	1.000 Very limited ** 1.000 Depth to saturated zone 1.000 Cutbanks cave 1.000 (0.000-1.000) Content of organic matter (No organic matter limitation to Content of organic matter)
WaA: WATCHUNG-----	1.000 Very limited ** 1.000 Depth to saturated zone 0.719 (0.000-1.000) Too clayey (Not too clayey to Too clayey) 0.100 Cutbanks cave
WaB: WATCHUNG-----	1.000 Very limited ** 1.000 Depth to saturated zone 0.755 (0.000-1.000) Too clayey (Not too clayey to Too clayey) 0.100 Cutbanks cave
WcB: WATCHUNG-----	1.000 Very limited ** 1.000 Depth to saturated zone 0.755 (0.000-1.000) Too clayey (Not too clayey to Too clayey) 0.100 Cutbanks cave
WhB: WHITEFORD-----	Not Rated Not Rated; bulk density 0.420 Depth to hard bedrock 0.100 Cutbanks cave
WhC2: WHITEFORD-----	Not Rated Not Rated; bulk density 0.633 (0.000-1.000) Slope (No slope limitation to Slope) 0.420 Depth to hard bedrock
WoB: WOODSTOWN-----	1.000 Very limited ** 1.000 Cutbanks cave 0.999 (0.820-1.000) Depth to saturated zone

ALL VALUES ARE ROUNDED.

* INDICATES NULL DATA WAS USED.

+ INDICATES DEFAULT VALUES WERE USED.

