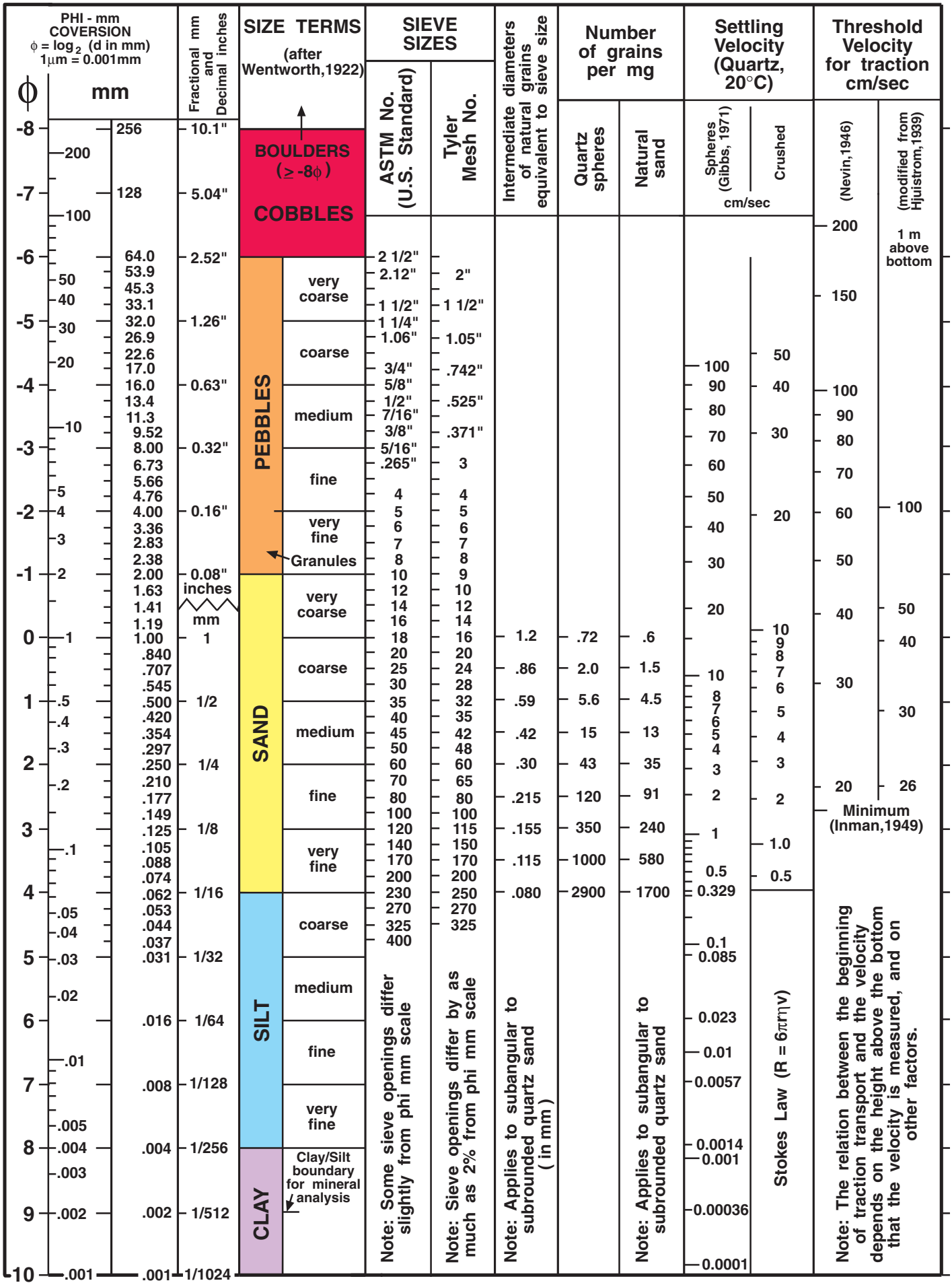
PHI - mm COVERSION
$\phi = \log_2$ (d in mm)
1μm = 0.001mm
ϕ
mm
Fractional mm and Decimal inches
SIZE TERMS
(after Wentworth,1922)
SIEVE SIZES
ASTM No. (U.S. Standard)
Tyler Mesh No.
Intermediate diameters of natural grains equivalent to sieve size
Number of grains per mg
Quartz spheres
Natural sand
Settling Velocity (Quartz, 20°C)
Spheres (Gibbs, 1971)
Crushed
cm/sec
Threshold Velocity for traction cm/sec
(Nevin,1946)
(modified from Hjuistrom,1939)
1 m above bottom
BOULDERS (≥ -8φ)
COBBLES
PEBBLES
SAND
SILT
CLAY
very coarse
coarse
medium
fine
very fine
Granules
very coarse
coarse
medium
fine
very fine
coarse
medium
fine
very fine
Clay/Silt boundary for mineral analysis
inches
mm
Minimum (Inman,1949)
Note: Some sieve openings differ slightly from phi mm scale
Note: Sieve openings differ by as much as 2% from phi mm scale
Note: Applies to subangular to subrounded quartz sand (in mm)
Note: Applies to subangular to subrounded quartz sand
Stokes Law ($R = 6\pi\eta v$)
Note: The relation between the beginning of traction transport and the velocity depends on the height above the bottom that the velocity is measured, and on other factors.