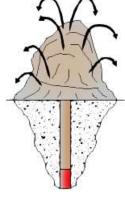


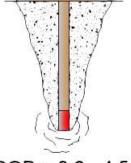
SDOB = 0 - 1.5

SDOB = 1.6 - 2.2

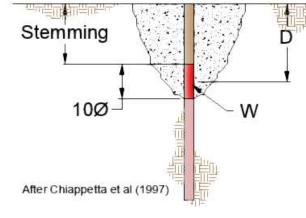
Imperial Units



$$SDOB = 2.3 - 3.5$$



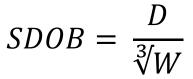
SDOB = 3.6 - 4.5

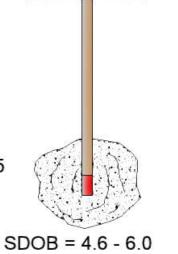


 $10\emptyset = 10 \times Hole Diameter$

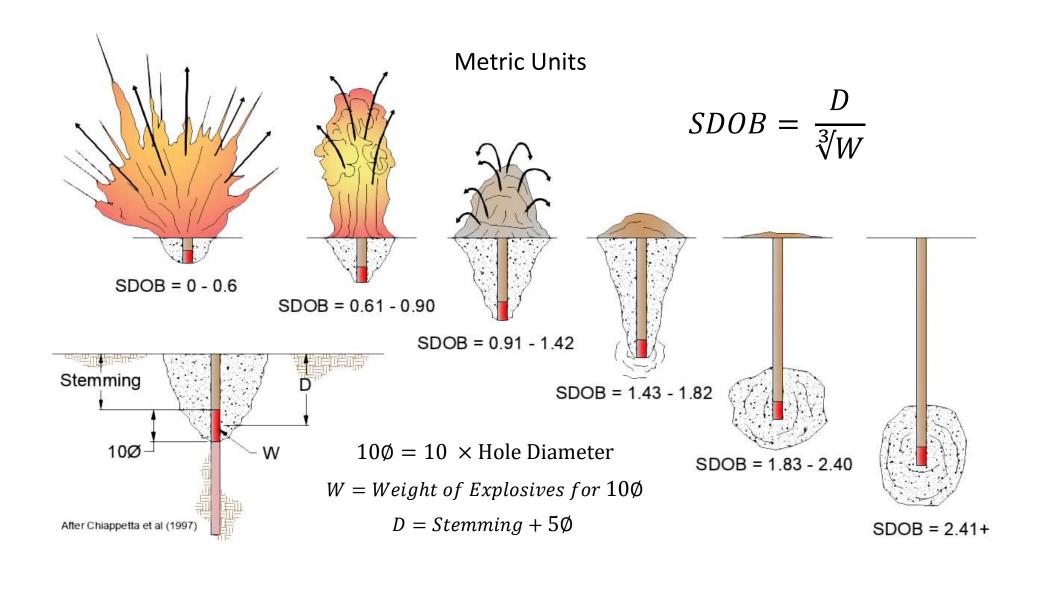
 $W = Weight of Explosives for 10\emptyset$

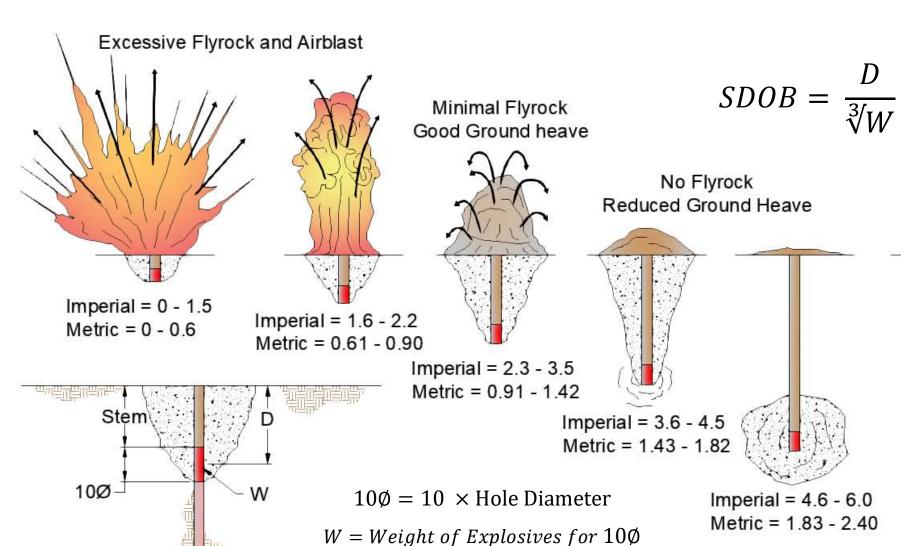
$$D = Stemming + 5\emptyset$$





SDOB = 6.1+





 $D = Stemming + 5\emptyset$

After Chiappetta et al (1997)

No Surface Disruption

Imperial = 6.1+ Metric = 2.41+