



Polar plots illustrating a shadow zone in a horizontal well. The left plot is a shaded contour plot of fracture-pole frequency within 18° of each grid point. On the right is a plot of the individual fracture poles on top of a shadow zone attenuation based on the borehole orientation within the interval. It is a common misconception in polar plots that this pattern would represent two broad fracture sets. Instead, it appears that the absence of poles in the NE/SW direction is caused by the shadow zone rather than a separation between fracture sets. (The polar plots are in stereographic projection and upper hemisphere.)