

# 5 Factors That Degrade Your Wireless Network in Mining Operations

Maintaining a wireless network in open and underground mines is one of the most difficult challenges system integrators and maintenance personnel face. Equipment is huge, on the move, and never in line of sight to network devices. Miners operate in dusty, loud and vibrating environments that beat up wireless equipment.

After a significant investment in building wireless networks, many managers face frustration with deficiencies in network uptime and durability. MP Antenna has identified five common issues that degrade performance:

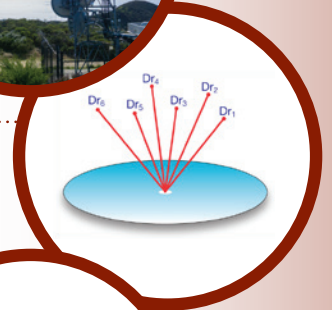
## Elevation

Increased difference limits line of sight reception



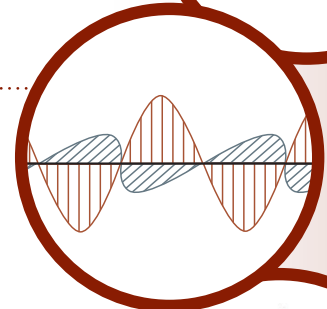
## Multipath Interference

Rocks and equipment bounce the signal creating degraded signals and missed data



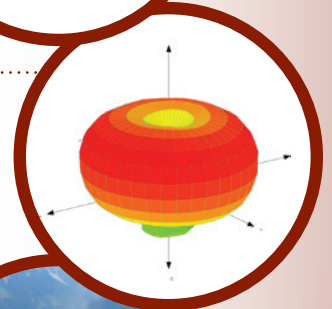
## Signal Polarity

Signals flip to horizontal or vertical orientation which lowers antenna reception



## Antenna Pattern

Proper selection increases data throughput and eliminates dead spots



## Pollutants

Moisture, dust and fumes degrade wireless equipment over time



**MP Antenna** works across the mining supply chain to help operations improve their wireless network. It's **Rugged Wave™** products have a proven track record of delivering data, voice and text communications in the world's most challenging mining environments.

To learn more about the role of wireless in mining operations, download the *Mining Safety and Communications Guide* from MP Antenna.

[DOWNLOAD THE GUIDE](#)

