

Is One Booster as Good as Two?



Background

VELOCITY OF DETONATION TESTING USED TO DETERMINE IF ONE BOOSTER WOULD WORK AS WELL AS TWO IN THIS APPLICATION

This open pit coal mine in Western Canada, Teck, uses two 400 g boosters for Maxam's RIO700 (70/30 gassed blend) in holes greater than 12" diameter.

Teck requested DynoConsult® conduct velocity of detonation (VoD), measurements to determine if one 400 gram booster would be sufficient for the product to reach steady state velocity.

Technology Applied

TWO 400G BOOSTERS VERSUS ONE 400G BOOSTER

Holes were probed for Velocity of Detonations using the current two 400 gram boosters and compared the results to one 400 gram booster. All other practices remained the same.

Results

STEADY STATE REACHED WITH ONE BOOSTER

It was determined steady state velocity was reached with one 400 gram booster. Maxam's TDS specifies a Velocity of Detonation of 5500 m/s using two boosters.

Dyno Nobel's Velocity of Detonation results for two boosters in RIO700 was 5443 m/s for one hole.

This test showed results with one booster for one hole were 5455 m/s.



Next Steps

MORE TRIALS

Dyno Nobel's Spartan® Twinplex boosters will be trialed next.