



FOUR WAYS CAT® TERRAIN FOR DRILLING ENHANCES YOUR ENTIRE OPERATION

When drilling starts on a new blast pattern, it begins a chain of activity that adds value from the shot through the loader to the haul fleet and right into the crusher. The cost and efficiency of every downstream operation depends on executing the drill pattern accurately, safely and efficiently. Here are four ways Cat® Terrain for drilling helps your drill operators do just that.

IMPROVE DRILLING ACCURACY

Cat Terrain uses satellite guidance and accurate depth sensing to ensure that holes are consistently drilled in exactly the right place and to exactly the right depth and angle. On uneven ground, the system automatically identifies the collar elevation and calculates the correct drill depth for each hole, reducing over- and under-drilling for predictable shot results and smoother bench grades.


DEPTH ACCURACY WITHIN **10 CM** 

 **4X** BETTER PATTERN ACCURACY

GREATER THAN **50%** 
REDUCTION IN LOST-TIME INCIDENTS

ENHANCE DRILLING SAFETY

Drills work in areas where explosives are used, so safety is paramount. Cat Terrain shows drill operators the locations of bootlegs to help ensure that re-drills avoid undetonated holes from earlier benches. It can automatically stop the drill from moving beyond a safe area designated by a virtual boundary. The use of digital blast plans eliminates surveying activities that put people to work on foot near moving equipment and on unreliable surfaces.

UP TO **5%** 
IMPROVEMENT
IN LOADER PERFORMANCE

ACHIEVE CONSISTENT FRAGMENTATION

Accurate drilling results in more predictable blasting. Good fragmentation in turn reduces the need for rock breaking after the shot. Loaders can penetrate the muck pile more easily, optimizing load cycle times, fill factors and overall haulage fleet productivity. At the processing plant, consistent material size enables crushers to work more efficiently for maximum throughput with lower energy costs.

REDUCE DRILLING COSTS

 **+10%**
IMPROVEMENT
IN CONSUMABLES COSTS

 **UP TO \$75,000**
COST SAVINGS
BY PREVENTING MOVEMENT
WITH PIPE IN HOLE

 **UP TO \$1 MILLION**
IN SAVINGS ANNUALLY
DUE TO OPTIMIZED DRILLING,
LOADING & CRUSHING PRACTICES

Cat Terrain sounds an alarm and can lock the propel mechanism if the drill operator tries to move the drill to the next hole while the steel is still in the hole—and that’s just one of the ways the system helps to reduce drill consumables costs. Accurate drilling depth also reduces overall explosives costs by assuring toe charges are accurately placed to yield smoother benches. In turn, that saves wear and tear on trucks, tires, and loading tools.

Results based on case studies of surface pit operations before and after implementing Cat Terrain for drilling. Your results will vary.

For more information, go to www.cat.com/minestar or contact your local dealer.

