

Boretrak Used for Appropriate Loading of Shot



Background

MULTIPLE BLASTERS CREATE CHALLENGES

This aggregate quarry in the Eastern United States is currently using a 14ft x 9ft front row pattern with a 12ft x 14ft interior pattern. The quarry uses 5 inch diameter holes and, on the upper benches, angled holes are usually used in order to get the correct burden on the front row.

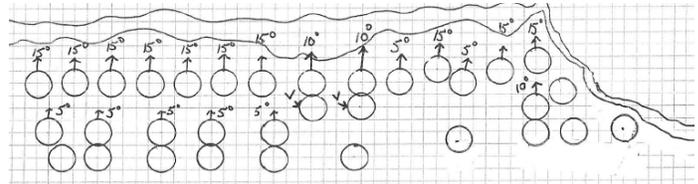
Dyno Nobel currently uses TITAN® XL1000 as the product for this quarry and is required to boretrak all angle holes over 10 degrees.

This quarry can have multiple blasters that layout and shoot each shot. This particular shot was laid out by one blaster and then shot by a different blaster. The blaster on shot day must decide how he wants to load each hole and to calculate how much burden is on each hole, especially the rows with differing angle holes.

Technology Applied

BORETRAK NEEDED FOR SUCCESSFUL SHOT

Because this shot had multiple angle holes of over 10 degrees it needed to be boretraked. The layout was sent to the tech team and the day before the shot, a 3D profile and boretrak was completed to show the blaster his profiles for each of the front row holes. The boretrak also could detect if any of the holes wandered either left or right and whether they were drilled to the angle indicated on the layout diagram.



Results

EXPERTS AND BORETRAK SYSTEM HELP DETERMINE COURSE OF ACTION

The front row of holes was determined to have appropriate burden even after the drilled holes were at a slightly higher angle than planned.

The problem arose when there was not sufficient burden between the 2nd and 3rd row of holes on one end of the shot. A decision had to be made to load up the third row to keep a straight wall behind the shot or load up the second row to help out the burden on the angle holes.

With help from the tech team and the boretrak, the blaster decided that keeping a straight bench wall was more important and the second row could be held down and still push the bottom on the bench face.

Next Steps

COMMUNICATION IS KEY

After the encounter with this shot, DynoConsult recommended the blasters communicate the reasons the shot was laid out the way it was. This is especially important when one blaster lays out a shot and a different blaster ends up shooting the shot. Also, having a tech member help profile or look at the shot beforehand is helpful to have another opinion on how to load each hole.