

3D Profile and Boretrak Used for Difficult Shot



Project Summary

FRAGMENTATION AND FLYROCK ARE THE BIGGEST CONCERNS FOR THIS QUARRY

This limestone quarry in the Eastern US is set up directly next to a main country road. The quarry is small in itself and the blasting is spaced throughout the year. The patterns for this quarry vary depending on where they are shooting. The main concern for this quarry is fragmentation and keeping all the rock inside of the quarry.

The big challenge for this shot was that it is located close to the road and comprised of very broken up material. This shot has three open faces to it with one facing directly at the road with very little berm separating it. It is strongly recommended that each shot at this quarry is boretraked and 3D profiled to obtain accurate measurements.



Technology Applied

PAIRING TECHNOLOGY YIELDS RESULTS

A few days before the shot, the tech team was brought in to complete a 3D profile of all the faces and a boretrak of all the front holes. Pairing these together would give the blaster a good idea of how he should load each individual hole. The blaster was also educated on the timing of the shot needed to pull all the material into the pit and away from the country road.

Results

GOOD FRAGMENTATION AND PLACEMENT

The boretrak data showed that the holes were wandering in all directions because of the broken up rock and mud seams throughout the entire shot. When paired with the 3D profile it gave the blaster profiles of which holes to load lightly and which ones could be loaded full column. As a result, all the rock stayed within the quarry and the management was happy with the fragmentation of the shot.

Next Steps

ONGOING MEASUREMENTS

The location of this quarry will always require the attention and help of the tech team when each shot is planned. The extra planning involved in profiling and boretraking can make a difference in how the rock breaks and how far it travels. The blaster knows that when new shots are coming up in this quarry that he should call the tech team for advice and to help measure each profile of the shot.

