



Changing the Game

Turner Mining Group Improves Operational Efficiency with Firmatek's Drone Solutions

Turner Mining Group (“Turner”) prioritizes making operations more efficient and easier in the mining industry. They have helped themselves and their clients streamline the billing and reconciliation process by using Firmatek's Drone Solutions. Instead of time consuming and costly disputes about how much volume was moved, they have a recognized third-party number every time.

Traditional measurement techniques can be expensive, slow, and less safe

A common problem for contractors, like Turner Mining Group, is tracking the volumes of material moved. Invoicing is based on these volumes. Contractors can often end up in costly and time-consuming disputes with clients over how much material was moved on a given site or project.

Historically, Turner would hire a surveying company to go on site with GPS rovers to collect the data. While each point a surveyor takes is quite accurate, they would only take a few hundred points. New technology, like drones, is much more accurate. Instead of a couple hundred points, you have a couple hundred thousand points. Turner had to schedule the surveyor to come out, typically only at the beginning and end of a contract. In addition to the inaccuracy, traditional methods involve shutting down operating areas so that the surveyors can climb on the pile, which is dangerous, and includes a couple weeks of turnaround time to get the results back. This method is

less safe than new technology methods and is difficult to reconcile billings quickly.

Turner was frustrated by the inefficiencies created by these old methods and the costs of the disputes. When drone technology became a viable solution for inventory measurements and mapping, the team jumped at the chance to implement a new system that is easy, efficient, and safe.

Turner Mining Group uses drone solutions because they are an easy and cost-effective way to make operations more efficient and improve safety.

How Turner Mining Group Uses Drone Solutions

Turner's adoption of Firmatek's Drone Solutions allows them to collect data and ensure correct volumes are reported when it makes sense for them, such as at the beginning, middle, and end of a project. Instead of having to hire a surveyor to come out on site on a specific day, Turner Mining Group employees fly the drone on site the days they need to use it. This typically includes a pre and post-site scan. On larger projects, they may do flights monthly or in the middle of the project. They use these numbers to reconcile what they have been reporting for truck payloads and to be sure they are on target to meet production requirements. If they are not, they make adjustments to their processes before it is too late. It has become so easy that their standard is to fly every site they are working at monthly.



About Turner Mining Group

Turner Mining Group is a team of experienced mining industry professionals performing a full spectrum of mining services from coast to coast. Turner supplies some of the largest cement, aggregate, and specialty minerals companies with superior service and flexibility all while maintaining a safe work culture.

Contract Mining, Overburden Removal, Land Reclamation, Material Processing, Drill & Blast, and Mine Planning are just a few services they offer. Please visit their [website](#) for more information.



The drone solutions process is fast and easy. It typically takes a Turner employee about 45 minutes from start to finish to capture the data on the site. Then they hand it off to Firmatek and get their results. The full-service model of Firmatek's solution fits their needs better than some of the more Do-It-Yourself models available today. In addition, the price point is much more cost-effective than using a traditional surveyor.

While they don't currently invoice off of these numbers, they see that as the next step. Turner could see having a drone in most areas or at least at large contract sites. They would fly frequently so that they stay on top of their numbers and have them ready for invoicing. But for now, reconciliation and process improvement is a huge win and has made their processes much more efficient.

The Safety Factor

Drones are significantly safer than other surveying methods, whether it is a surveyor walking on piles or even mobile LiDAR where the technician is driving around a site. One person can stand out of the way and fly the drone. He never needs to be near an active area.

For this reason, the safety factor of drones is a big selling point for this technology for Turner Mining Group.

Previously, the crews would have to shut down while a surveyor was on site measuring. Now, they don't lose that production time. So in addition to being more cost effective overall, drones also mean less down time.

Third Party Results

One of the reasons Turner Mining Group chose Firmatek's Drone Solutions over competitors is because Firmatek processes the data. This makes it easier on Turner's staff, as no one needs the expertise or time to process the data. More importantly, clients agree that it is an independent third-party number. Because the numbers are coming from an independent third party, both parties trust the results, thus resolving disputes before they even happen.

Why Firmatek

There are a number of drone providers in this industry. Turner Mining Group chose Firmatek because Firmatek has people that understand mining and mining applications. The support they get from Firmatek is more than just how to use the hardware or software. It involves a deeper understanding of why Turner Mining Group may want to do something, and they can help Turner understand the deliverables. Keaton Turner, President of Turner Mining Group said, "I don't think anyone else can speak knowledgeably about what goes on at a mine site. The industry expertise at Firmatek is invaluable."



About Firmatek

Firmatek's clients in the mining, construction, solid waste, utilities, and other industries are the companies that build the world we live in. They rely on the insights and data that Firmatek provides to make many key operational decisions.

Firmatek continues to invest in and remain at the forefront of the technology used to measure stockpiles and map the world. Whether you need third party measurement of your stockpile assets, a revealing laser scan of your mine in 3D, or a density calculation for your landfill, giving you supreme confidence is our mission.

We strive to offer our clients the absolute best in data collection, data processing, and data analysis. We provide our clients with the most accurate measurements and work with them to ensure that they understand their site data. This allows our clients to improve site production, manage their inventory, execute mine planning, and overall improve operational efficiencies.

Visit Firmatek's [website](#) to learn more.

Turner Mining Group continues to embrace new technology

Turner recognizes the importance of continuing to adopt new technology. They believe it is about efficiency and safety. Drones have had a big impact on both of these factors for Turner. They save time and money, and in addition they make data acquisition safer. Technology can make the work easier, and that allows the guys in the field to focus on operational efficiency.

Turner is excited to see where drone technology is headed in the future. They are dreaming of sitting in offices watching work get done through VR from a drone. We're not there yet, but maybe someday soon that will be a reality.

Firmatek's Drone Solutions Make Sense for Contract Miners

Turner Mining Group has adopted Firmatek's Drone Solutions across their nationwide organization. It has helped them improve efficiencies in billing and reconciliation, improved safety, decreased down time, and reduced disputes. Turner is not unique in its need for this type of solution. If you are a contract miner, contact Firmatek to get your drone program off the ground today.



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