

METALS & MINING

METALSMININGREVIEW.COM

Review

NOVEMBER - 25 - 2023
ISSN 2835-9631

MINING
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PRACTICAL MINING LLC

Championing
Responsible
Mineral Extraction

DAGNY ODELL,
OWNER

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Metals & Mining Review



PRACTICAL MINING LLC



The annual listing of 10 companies that are at the forefront of providing Mining Engineering services and transforming businesses

PRACTICAL MINING LLC

Championing Responsible Mineral Extraction



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By Samantha Jones

In the mining space, workers are highly susceptible to hazards like rockfalls, bursts, mud rushes, and maladies associated with poor air quality. As mining ventures delve deeper into the earth, geomechanical challenges intensify, prompting substantial investments in the mechanization of mining processes, particularly those deployed in high-risk zones.

Practical Mining LLC is a forward-thinking partner in the mineral resource sector that assists businesses in addressing this emerging need. It has been providing geologic and engineering services focused on maximizing the value of mineral resources and mineral reserves for more than two decades. The company's global expertise and value-driven ethos enable it to face dynamic market circumstances head-on.

"Our commitment to delivering excellence enables us to quickly adapt to client needs, while our experience and flexibility allow us to provide tailored solutions that exceed expectations," says Dagny Odell, owner of Practical Mining.



While engaging with clients, the company focuses on the mine design and planning process, which involves determining optimal mining methods for specific rock conditions and ensuring all excavations recognize hidden hazards.

For example, efficiently designed mine ventilation networks not only improve underground working conditions, they provide significant cost savings over the life of the mine.

Beyond its safety-oriented approach, the company has a dynamic and agile team that quickly responds to diverse client requirements. The small group has firsthand experience in the technical and operational roles of mine exploration, construction, and operation. This collective knowledge equips clients with valuable insights and tailored solutions for any emerging mining challenges. Odell leads this team from the front, enabling them to deal with different challenges and materialize the company's vision.

A Tale of Sustained Success

A core principle Practical Mining upholds is the integration of cutting-edge technologies into mining operations.

An excellent example is its use of the Hover Map. This autonomous, drone-mounted, LIDAR-based surveying system quickly and accurately maps mine openings and assesses extracted volumes to help clients maintain competitiveness and profitability.

Recently, the company's expertise was instrumental in facilitating a reverse circulation drilling program to evaluate near-mine potential. Practical Mining's seasoned team designed, planned, and executed this initiative, extending the mine's lifespan by three years. Its geological proficiency and planning significantly contributed to identifying the substantial additional resources that extended viability.

Practical Mining has revived a historic underground mine, operated sporadically from the early 1900s, by devising a comprehensive plan. This achievement led to the site's reopening and sale to a larger company. Five years later, the mine continues to thrive and deliver profits.

Success stories like these exemplify why Practical Mining is a go-to partner for businesses looking to achieve success and profitability in today's hyper-competitive and heavily regulated mining industry.

Practical Mining's primary focus has always revolved around providing comprehensive support to clients, particularly for public disclosure reports like 43-101 and SK 1300. These reports are broad in scope, covering every facet of mining operations, from geology and engineering to environmental considerations. However, as it collaborates with clients on these reports, the scope may evolve, and assumptions related to mining procedures and parameters can change. Flexibility is key, and Practical Mining quickly adapts to meet these shifting requirements.

The mining industry is now facing various challenges, the most recent being the confluence of rising commodity prices and inflation. Maintaining a delicate balance amid these shifting economic factors is crucial to developing a profitable mining plan that accommodates higher costs along with increased commodity prices.

Another notable challenge is the retirement of a significant portion of the mining workforce. A study conducted by the Colorado School of Mines revealed that approximately half of the U.S. mining workforce is expected to retire within the next six years. This demographic shift presents an issue that Practical Mining believes can be addressed through the integration of AI solutions. These solutions could expedite its work, enhance productivity, and help meet the demands of a changing workforce.

A Comprehensive Approach

For all its projects, regardless of whether the client is new or established, the company's first step is to know them and understand their goals and constraints. This initial phase involves a thorough review and analysis of relevant data and requires continuous interaction and collaboration with the client to ensure alignment.

Following this, Practical Mining constructs a geologic model, a critical first step in any project. With a solid model in place, it begins to formulate an economic mining plan. The company

takes into account commodity prices, operating costs, and the client's specific goals. Sometimes, the primary objective is not solely focused on maximizing net value but can involve blending materials to meet metallurgical demands, necessitating adaptability in its mine planning process.


The process involves designing ore excavations, capital development, and creating a production schedule. Economic analyses are then conducted to assess the plan's viability. Practical Mining also considers ancillary functions like ventilation and geotechnical aspects, which can influence modifications to the mine plan. This iterative process requires multiple rounds of refinement to comprehend the factors driving a project.

Practical Mining's deep-rooted knowledge, especially in regions like Nevada and the Western U.S., gives it a competitive edge. The company knows and understands the local geology, deposits, contractors, and operators, allowing it to make informed decisions and accurate assumptions. Its extensive database of costs further aids in crafting precise estimates for clients.

Keeping Pace with Recent Trends

In the past two years, Practical Mining has introduced a new service using LiDAR surveying technology. This allows it to scan and map mines—on the surface and underground—even in areas where GPS is unavailable. The most exciting aspect is that the company can use fully autonomous drones to deploy this technology, enabling it to safely access and map mine areas that are otherwise difficult or not safe for human access. This technology is especially valuable in active mining areas where it is essential to locate historical excavations and ensure safe mining practices.

Practical Mining remains committed to providing comprehensive and adaptive solutions to meet the mining industry's evolving needs. Its dedication to leveraging technology and deep industry expertise positions the company to effectively address client needs. [M&M](#)


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