

# Innovative Cat<sup>®</sup> Precision Mining initiative bringing mine-to-mill theory into reality

- To integrate a suite of Cat<sup>®</sup> and third-party technologies into the Cat<sup>®</sup> MineStar<sup>™</sup> ecosystem
- Real-time data to be aggregated, reported and analyzed through the Cat Intelligent Decision Support System
- Giving mining companies the tools to increase productivity, lower costs, enhance safety and make operations more sustainable

IRVING, Texas, September 21, 2024 – Caterpillar’s advanced mining vision, Cat Precision Mining is designed to improve and streamline every step of the mining process, from extraction to processing, bringing mine-to-mill theory into reality. The initiative will bring everything together as a fully integrated, end-to-end solution that is customized to the mining operation’s specific requirements and unique orebody characteristics.

Cat Precision Mining will feature a suite of Cat and third-party technologies, including sensors installed across the site’s mobile equipment, processing plant, and other fixed assets, all integrated into the Cat MineStar ecosystem. Leveraging data from Caterpillar, Caterpillar company Peck Tech<sup>™</sup> Consulting Ltd, and collaborating partner technologies from Orica Digital Solutions, IMA Engineering, Stream Systems, Skycatch, Inc., and Information Alignment PTY LTD, the advanced mining solution will help operations more rapidly and precisely adjust their planning activities based on measured orebody variations that are present.

Providing the tools customers need to make quick and accurate decisions, Cat Precision Mining will enable blast plans designed in 3D, while collecting rock property data to help optimize blast designs that accommodate for natural ore-body variations. The intelligent mining solution will gather data related to blast fragmentation, muckpile uniformity, payload, and ore material properties for efficient material handling and assists with making sure the right material gets to the right place, reliably and predictably. Advanced ore sensing and sorting help to ensure consistent and repeatable feedstock is delivered to the mill to offer higher recovery rates, reduced energy costs and less waste.

Key to the Cat Precision Mining initiative, Caterpillar is developing its Intelligent Decision Support System which will leverage the capabilities of Cat MineStar to consolidate Cat and third-party technology and sensor data, allowing miners to make data-driven decisions and continually refine processes. The solution will aggregate, analyze and report data from across the drilling, blasting, loading and hauling, and processing operations. MineStar Material Management and Reporting will provide ore tracking from mining exploration and extraction processes right through to the finished product and can be utilised for evaluation and future



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## New Product Introduction

prediction. When layered with Cat Command for hauling, the solution will provide even more consistent and efficient operations and lower operational costs.

“The broad portfolio Caterpillar offers in drills, loading tools, trucks, dozers, graders and support equipment, along with the integrated suite of MineStar technologies, make us uniquely qualified to efficiently advance the mine-to-mill theory into reality,” commented Marc Cameron, senior vice president Resource industries Sales, Services and Technology. “We already have most of the pieces to the puzzle in place and are adding technology collaborators to enhance and bring this initiative all together.”

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## NOTE TO EDITORS

### About Caterpillar:

With 2023 sales and revenues of \$67.1 billion, Caterpillar Inc. is the world's leading manufacturer of construction and mining equipment, off-highway diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives. For nearly 100 years, we've been helping customers build a better, more sustainable world and are committed and contributing to a reduced-carbon future. Our innovative products and services, backed by our global dealer network, provide exceptional value that helps customers succeed. Caterpillar does business on every continent, principally operating through three primary segments – Construction Industries, Resource Industries and Energy & Transportation – and providing financing and related services through our Financial Products segment. Visit us at [caterpillar.com](https://caterpillar.com/en/news/social-media.html) or join the conversation on our social media channels at [caterpillar.com/en/news/social-media.html](https://caterpillar.com/en/news/social-media.html).

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