

28 June 2023**Big names in mining team up to demonstrate remote semi-autonomous dozer technology**

Thiess, Caterpillar and Hastings Deering deliver off-site remote operation of Cat® MineStar™ Command for dozing live at the World Mining Congress in Brisbane (27–29 June 2023).

Global mining services provider Thiess has teamed up with original equipment manufacturer Caterpillar and local Cat dealer Hasting Deering to demonstrate Thiess' semi-autonomous dozing operation using a remote operating station (ROS) located over 850km away from the site.

Thiess controllers will remotely operate multiple Cat® D11 dozers, at Lake Vermont mine in Central Queensland, live from Caterpillar's stand [Gold 4] at the World Mining Congress. This is the first time multiple dozers have been controlled off-site for a customer using Cat MineStar Command for dozing's semi-autonomous tractor systems (SATS) since the product has become commercially available. With this autonomy layer enabled, operators can control multiple dozers at a time, without the need for the operator to be physically on site.

Thiess has one of the world's largest active deployments of SATS technology at Lake Vermont mine, where six Caterpillar D11 dozers are operating. Thiess' data shows through SATS technology, they have moved more than 8.2 million banked cubic metres (equivalent to more than 3000 Olympic-sized swimming pools) and seen a 25% improvement in dozer utilisation delivering up to 23 hours per day of operation – in comparison, conventional, staffed dozers typically achieve 17 hours per day.. Thiess first implemented Command for dozing at Lake Vermont in 2019.

Thiess Group Manager – Autonomous Services Trent Smith said: "We are excited to work with Caterpillar and Hasting Deering on this live demonstration and showcase our experience and expertise in autonomous mining services"

"Autonomous mining and rehabilitation are a key part of Thiess' service offering – we've seen improved safety, and productivity and efficiency benefits, and have upskilled more than 100 employees on autonomous mining systems."

"We are excited to have Thiess showcase semi-autonomous dozing live from the show floor of World Mining Congress using Cat MineStar Command for dozing," said Sean McGinnis, vice president of technology and global sales support at Caterpillar. "In addition to enabling safe operation from a comfortable environment, Command for dozing customers are achieving increased equipment utilization, improved production outcomes, greater compliance to their mining plan and lower operating costs."

Simon Zillman, product manager for Hastings Deering added: "We've been on a journey with Thiess over the past three years to build the autonomous capabilities across their sites, supporting with expert technicians both onsite and remote. The World Mining Congress is the first opportunity for us to showcase semi-autonomous Command for dozing with SATS technology operating from an urban area. The SATS Technology allows for full utilization of the machines capability with a product that is fully integrated with the Caterpillar dozer, leading to greater productivity and safety onsite."

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Issued by Thiess Pty Ltd ABN 87 010 221 486 <https://thiess.com/>

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About Thiess

Thiess partners with its clients to deliver sustainable solutions in open cut and underground mining in Australia, Asia and the Americas. For almost 90 years, Thiess has operated across diverse commodities, geologies, environments and cultures.

As a global services provider, Thiess is uniquely placed to make a significant contribution to responsible, sustainable mining and a low-carbon future by working with our clients, suppliers and the industry to enable the global energy transition. Thiess is committed to harnessing the power of its people and technology to drive sustainable change.

About Caterpillar

With 2022 sales and revenues of \$59.4 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 or join the conversation on our social media channels at caterpillar.com/en/news/social-media.html.

About Hastings Deering (Australia) Ltd.

Headquartered in Brisbane, Hastings Deering is the market leader in construction and mining equipment, having exclusive distribution rights for the sale and rental of Caterpillar heavy equipment, parts and service support in Queensland, the Northern Territory, Papua New Guinea, New Caledonia, and Solomon Islands. Employing approximately 3,000 people, Hastings Deering operates through a network of 23 business centres. www.HastingsDeering.com.au