The innovative Cat® Rock Flow System is a new technology that radically changes the way in which ore is moved in block caving mines from draw point to the primary crusher. The Cat Rock Flow System comprises of several components, all centrally controlled from the mine’s main control room: the Rock Feeder RF300 to extract the ore from the drawpoint, the Rock Mover RM900 (a newly developed hard rock chain conveyor) to transport the ore and an automation unit to control and smooth the production process.
INCREASES PRODUCTIVITY:
The Rock Flow System is a high-performance production system for block and panel caving operations. A continuous ore stream is generated through multiple drawpoint extraction. This continuous flow increases the mine production.

REDUCES COSTS:
The benefits from the continuous ore flow become particularly apparent during the full production phase: because of its increased production rate, the Rock Flow System allows for a significantly reduced active area, resulting in a downsized infrastructure, helping to further reduce costs.

SAFE IN OPERATION:
The autonomous operation with remote supervision brings several different advantages. Once the system has been installed, there is no need for workers to remain underground. Miners steer the system from the mine’s main control room in a safe environment. This improves health and safety issues, and makes overall job conditions more attractive. Moreover, mining in the most severe kind of environment becomes a viable option.

ENVIRONMENTALLY FRIENDLY:
The use of electric drives helps reducing the exposure of diesel fumes to both personnel and environment and thereby improves the underground carbon footprint. In addition, reduced ventilation efforts contribute to reduced energy costs.

SERVICE AND MAINTENANCE:
The components of the Rock Flow System are powerful, yet compact in terms of dimensions. A modular approach of the components provides easy handling, reducing downtimes for repair, maintenance or panel moves. The RF300 is a perfect example to demonstrate this benefit: the dozer/feeder is easily accessible from the service gallery; the individual unit can be rejected and re-inserted at any time during production.

SOLID & RELIABLE WORKMANSHIP:
Rock Flow components are manufactured to last long under the harsh hard rock conditions underground. The RF300 uses low wear components to help optimize a continuous forward/reverse movement. The RM900 chain conveyor is especially designed for the abrasive hard rock environment by low wear material, robust flight bars and a durable hard rock conveyor chain.

EXPERIENCE, EXPERTISE AND RELIABILITY:
Caterpillar has a broad range of expertise in mining technology, and the underground mining facility builds on roughly 100 years experience in underground mining. Experience reflected in precision manufacturing, quality assurance and productive machinery, making your mining operations more productive.