



# MOSS BUSINESS CASE SUMMARY

## OPTIMIZED DEVELOPMENT OPERATIONS

### WHAT IS MOSS?

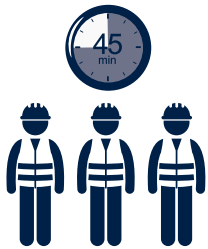
The Miner Operated Survey System (**MOSS**) is a underground operations software that allows miners to advance the face independently. MOSS provides miners, engineers, and geologists with real-time information regarding compliance to design.

### OPPORTUNITY SAVINGS

In ground support materials and maintenance parts **alone**, MOSS can save the average operating mine approximately **\$536,000** and the average developing mine **\$1,331,000** annually.

### SURVEY CYCLE COMPARISON

#### Wall-Bar Survey Cycle



45 min/round

VS

#### MOSS Survey Cycle



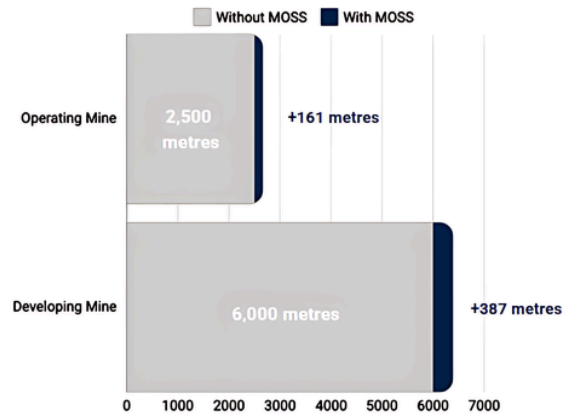
10 min/round

On average, MOSS reduces a 24 hour development cycle by **2 hours** per round.

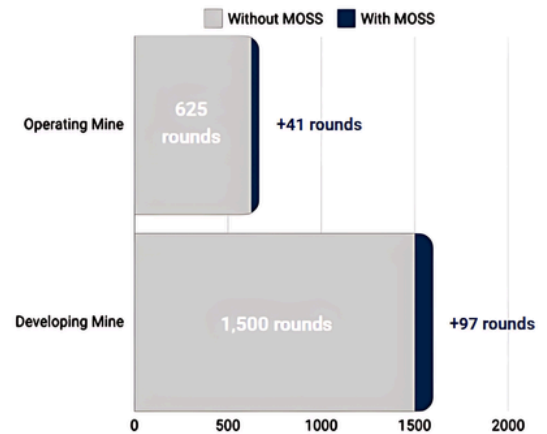
*\*Please see full Business Case for all assumptions and calculation breakdowns.*

### OPERATIONAL IMPACT OF MOSS - DEVELOPMENT RATE INCREASE

#### Annual Metres



#### Annual Rounds



**SAVE MONEY, SAVE TIME, SAVE LIVES.**

**8%**

Reduction in cycle time. Lowers risk of injuries and fatalities, and increases development

**76%**

Time reduction in mark-up related surveying. Surveyors can be leveraged for more critical tasks

**10%**

Average overbreak experienced by MOSS users