

## INDUSTRY

# Lean Mine Construction

Eliminate Delays & Cost Overruns. Generate Revenue Faster.

## Does your organization struggle with:

- Delayed mine construction projects
- Excessive cost overruns
- Supply chain complexity
- Lack of project management
- Keeping equipment running, productive and safe

## With the TBM approach to Lean Mine Construction, you will:

- Complete mine construction on time and within budget
- Begin generating revenue faster
- Improve worksite organization and safety
- Create effective planning and project management
- Efficiently use assets and machinery
- Improve supply chain management

## Take mine construction from behind schedule to ontime.

An expert in the principles and practices of operational excellence, TBM provides targeted solutions that deliver new, high levels of productivity, quality and throughput, increase workplace engagement and safety, and provide a platform for sustainable and profitable revenue growth.

## Our lean mine construction focus areas:

**Construction Planning, Implementation & Project Management:** We work with you to define project objectives, deadlines and costs. We then define the maximum possible yields according to capacities and diagnostic the levers that could affect the terms and cost of the project. Our consultants guide the team with project planning by identifying high-impact projects and implementing project management elements. We then provide results tracking with defined governance structures and project follow-up. With our process, you identify all day-to-day improvement opportunities to ensure sustainment.

**Management System, KPI Alignment & Execution:** Establish the rigor and discipline needed for setting goals, measuring progress, identifying misses and root causes, and course correcting on a daily basis. As a result, you can win the day, the week, the month, and ultimately the year.

**Leadership Development, Standard Work, Training & Certification:** We make your leaders the engine behind your management system by teaching them to use a structured approach to drive daily improvement. Metrics are aligned, accountability is clear, and problem-solving skills are rooted in organizational behavior.

Stop accepting project delays and cost overruns. Mining companies are using lean management practices to increase excavation and extraction rates, eliminate project delays and capture billions of dollars in revenue.

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#### Subterranean Construction Project Goes from Nine Months Behind Schedule to On-Time

Historically, mining executives and operational leaders have expressed doubts about the relevance of lean management practices for the mining industry. The annual report of a large South American mining company noted a 20% productivity gain from 2014-2018 (two years ahead of their target). Company leaders attributed this achievement and \$1.7 billion in cost savings to the rollout of their continuous improvement / lean management system. The results are highlighted below.

- Reduced total mine construction project costs by \$460 million
- Eliminated schedule overruns—originally running nine months behind schedule and ultimately completed the construction project on time
- Boosted excavations from 320 to 1,700 meters per month
- Rock extraction increased from 44,000 tons to 188,000 tons per month
- Equipment availability improved from 66% to over 85%
- Engaged all levels of the organization—management behavior and culture is now more proactive and less reactive and they are able to achieve and sustain targeted improvements

## Accelerate mine construction projects and eliminate cost overruns using a lean approach

Mining companies are increasingly using lean management methodologies to improve yields, increase responsiveness and build more resilient organizations. These revolutionary work management practices can have an especially significant financial impact on mine construction and expansion projects.

### TBM Approach to Lean Mine Construction

#### Diagnose

An assessment and mapping of current processes to identify obstacles and opportunities for improvement. Includes a review of financial and operational metrics, observation and input from all departments and organizations, and identification of primary cost drivers and scheduling barriers.

#### Planning

Prioritization of activities based on strategic objectives, alignment of daily, weekly, and monthly metrics and objectives. Includes an evaluation of the current delivery plan and development of a new one. Introduction of process for plan-of-day and obeya meetings, pull planning and expectation setting.

#### Stabilization

Work begin on areas with highest immediate impact. Includes introduction of daily management system training, safety, goal setting, progress measurement, abnormality management, root cause analysis and problem solving, and standard work creation.

#### Recovery & Improvement

Teach organization to respond quickly and focus on teamwork by following the plan-of-day process. Includes ongoing execution of the recovery plan, deeper dive into daily management, improving asset availability and performance, deeper problem solving work, raw material waste reduction and supplier selection and certification.

#### Follow Up

Institutionalize leadership process. Leaders become adept at monitoring construction project indicators and problem solving. Includes mentoring, coaching and sustainment.

Eliminate delays & cost overruns. →

Start generating revenue faster with TBM.

## Speed wins every time.

TBM specializes in operations and supply chain consulting for manufacturers and distributors. We push the pedal down in your operations to make you more agile and help you accelerate business performance 3–5x faster than your peers.

