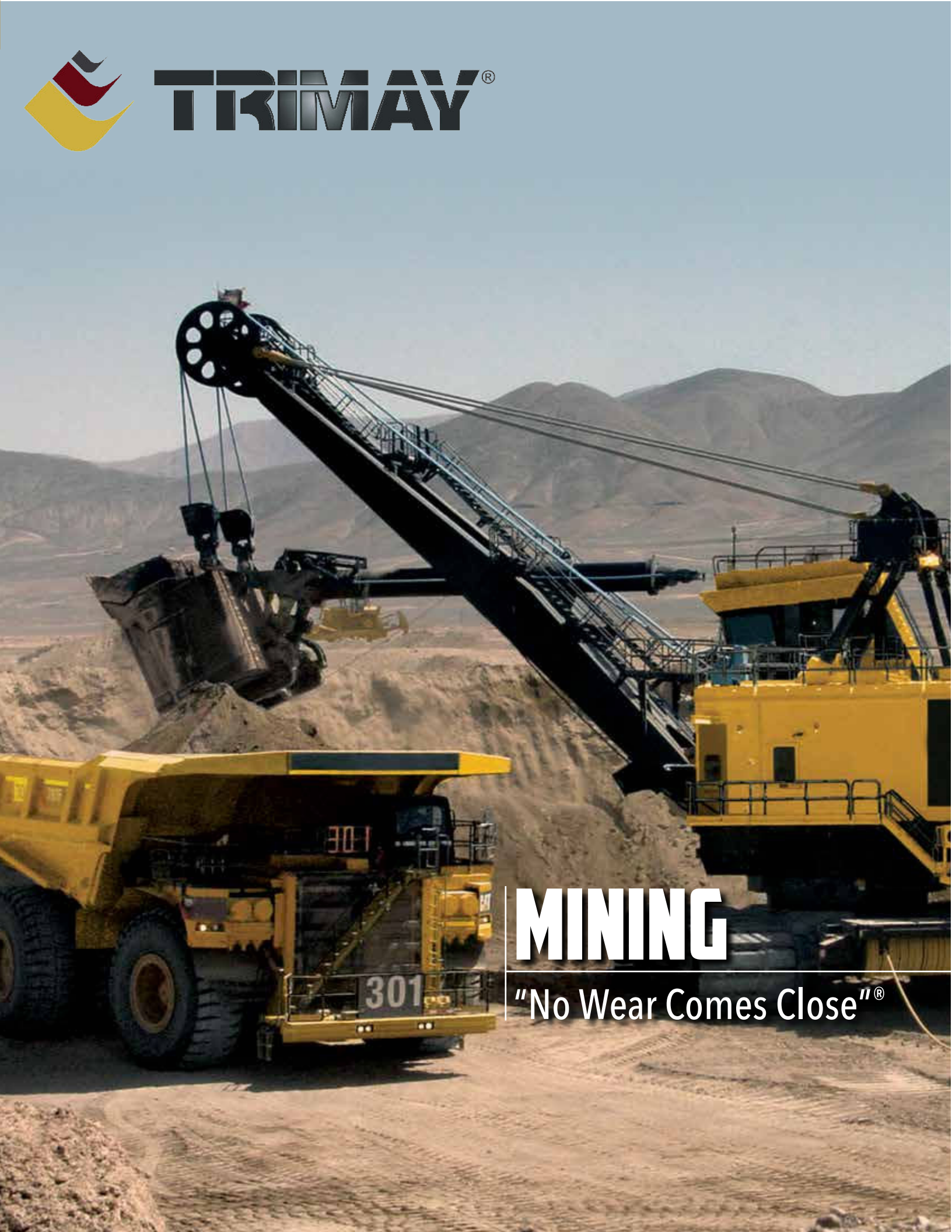
TRIMAY®




# MINING

"No Wear Comes Close"®

# ABOUT TRIMAY®

Trimay™ is a manufacturer of advanced wear materials that are designed to significantly increase wear life on equipment components in the mining industry. These Patented alloys provide exponential increases in equipment wear life and significant reductions in repair costs resulting in increased maintenance ROI.

Trimay Advanced Wear Materials are supplied as Wear Plate, Wear Pipe, Elbows, Transitions and Bends.

# MINING APPLICATIONS

- Slick lines, Backfill Lines
- Skip Liners
- Chute Liners
- Hopper Liners
- Grizzly Wear Bars
- Skirt Board Liners
- Crusher Liners
- Loader Bucket Liners and Wear Pads
- Haul Truck Box Liners
- Excavator, Shovel and Drag Bucket Liners
- ID Fan Blades and Scroll Liners
- Tunneling Boring Equipment Wear Pads and Liners
- Process Pipe, Elbows, Transitions
- Slurry and Hydro-Transport Pipe

# CASE STUDY 1 - Uranium Slick Line

## PROBLEM

A 550 meter vertical (free-fall) concrete delivery system to an underground uranium mine in northern Saskatchewan, Canada. The previously used 9-5/8" OD API 5CT Gr. L80 casing wore through in approximately 16 months, requiring installation of another line.

## SOLUTION

Trimay® T171 6mm overlay was chosen rather than a 12mm chromium carbide (T157) overlay. T171's superior wear ability allowed for an overall reduction of weight and an increase of 1.2cm inside diameter space for concrete. T171 also proved to be more ductile than chromium when applied to the L80 casing.

## RESULT

The vertical concrete delivery system was installed via male-to-male zero-clearance threaded couplers, and is conservatively estimated to last over 17.5 years - according to annual inspections and measurements of the wear rates of the line.

# CASE STUDY 2 - Skip Deflector

## PROBLEM

Hard-rock sliding abrasion and impact on skip deflector plates in an underground Canadian gold mine. During loading, ore drops 30 feet (9 meters) onto a deflector plate and slides into 20-tonne capacity skip. During unloading, the skips are tilted at a 30 degree angle on one side and the ore slides over the deflector onto a belt conveyor for transport to the next station.

## SOLUTION

Trimay T171. To extend the life of the skip deflector and reduce surface materials loss, the mine installed T171 overlay wear plate, 1/2 inch thickness.

## RESULT

The T171 overlay wear plate was prematurely removed from service for maintenance after deflecting more than 1 million tonnes of ore. The comparison materials were completely worn and the skip needed to be re-lined, even though mine engineers estimated T171 to deflect another 1 million tonnes before requiring replacement.


T171 after 410,000 tonnes

T171 after 625,000 tonnes


T171 after 1,050,000 tonnes

# WHY TRIMAY®

## QUALITY

Tightly controlled manufacturing process

Commitment to continuous improvement through Research and Development.

- Recently Trimay has developed two new alloy blends. One achieves abrasion resistance approaching Tungsten Carbide at one quarter the cost. The other achieves the same wear with the impact resistance of Manganese.

## TRACEABILITY

All products manufactured by Trimay can be traced back to source. Information on each component, alloy applied and testing performed is readily available to the client.

## RELIABILITY

Trimay Products are submitted to rigorous, random testing to ensure consistency and high standards.

Decades of repeat business and successful field applications show the confidence our clients have in Trimay Wear Materials.

## TRIMAY WEAR PLATE AND WEAR PIPE ALLOYS

All Trimay alloys are proprietary and blended in-house. They are available as cladded plate in 3mm to 17mm overlay thickness and 9mm to 50mm total thickness. They are also available in cladded pipe from 3"-48" diameter and as consumables in wire and electrode.

### T168I

T168i is a revolutionary new material specifically designed as a chromium free and heat-treatable material. It provides the best performance in aggressive environments where severe impact and abrasive wear are critical sources of material failure.

### T171

T171 is a patented Boron Carbide iron based steel overlay wear solution with a near nanoscale (submicron) microstructure. T171 is well suited for the toughest jobs in the most extreme service environments. T171 is developed by Trimay® Wear Plate Ltd.

### T170

T170 is a Tungsten Carbide alloy in a nickel based steel overlay wear solution with a unique proprietary composition designed to withstand heavy impact and severe wear environments.

### T138, T156 AND T157

T138, T156 and T157 are Chromium Carbide alloys in an iron-based steel overlay deposit. Each of the Alloy blends provide unique combinations of wear resistance, impact resistance and co-efficient of friction. T157 is our best-selling product with decades of blind wear tests showing that it is the best CrC Wear Plate available on the market.

TRIMAY®

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