MiningMath

The First and Only Single-Step Mining Optimization Engine

HOW GLOBAL IS YOUR MINING OPTIMIZATION?

Even the greatest engineers and algorithms might...

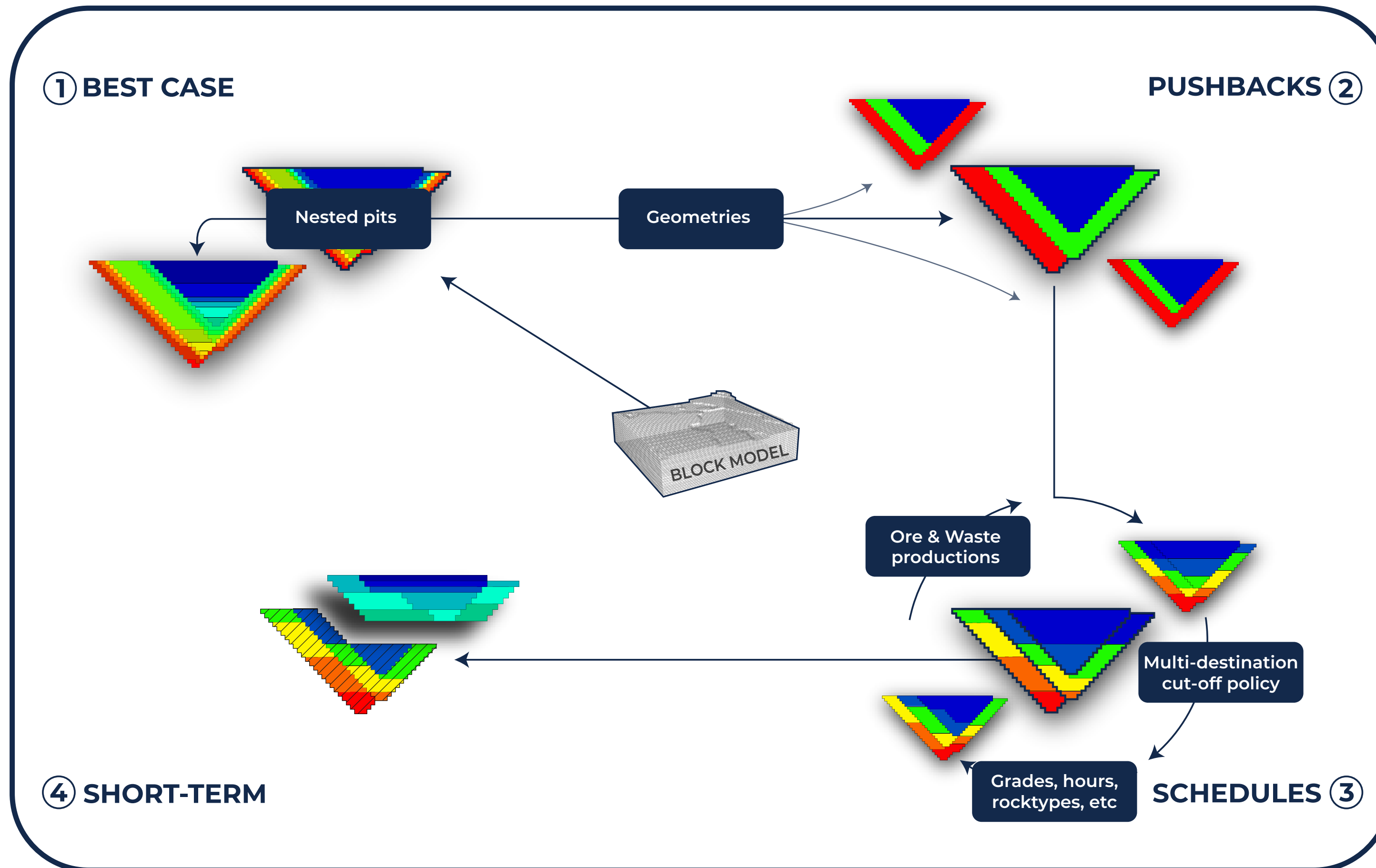...miss opportunities, when one decision limits the next one.

The MiningMath software allows mining engineers to improve their strategic analysis through risk assessments that are unconstrained by a step-wise approach to optimization.

MiningMath's optimization methodology helps to integrate multiple areas of the business, handling all parameters simultaneously and delivering multiple scenarios, accounting for both strategic and tactical aspects.

With constant developments since 2013, MiningMath has reached a mature and robust state. It is the first and only single-step mining optimization engine available in the market!

STEP-WISE APPROACH

Take any step-wise workflow: step 1 restricts possible mining regions for step 2, which constraints specific shapes for step 3, etc... How many feasible solutions are you missing out? Are they good or bad? You'll never know...

① BEST CASE

Nested pits

Geometries

PUSHBACKS ②

BLOCK MODEL

Ore & Waste productions

Multi-destination cut-off policy

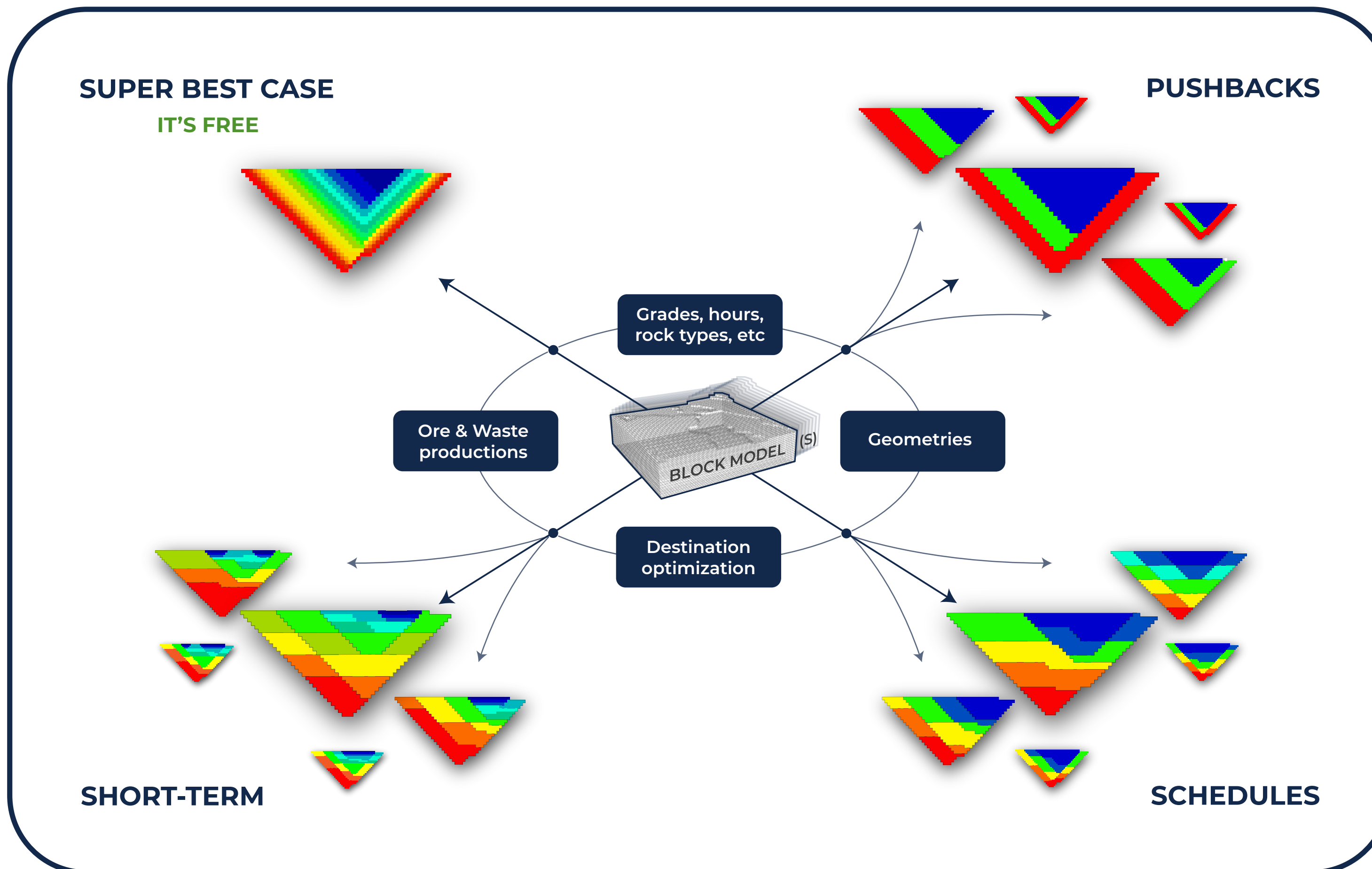④ SHORT-TERM

Grades, hours, rocktypes, etc

SCHEDULES ③

What if...

- Your nested pits do not lead to feasible production plans?

- Your pushbacks do not account for your blending needs?

- Your short-term planning does not fit the long-term view?

- Other geometric conditions could be tested for a better NPV?

- Your cutoffs and sequence incur higher mining rates and stocks?

What if you could access and compare many other potential solutions? You don't need to discard your existing designs. MiningMath connects smoothly with any product in the market.

SUPER BEST CASE

IT'S FREE

PUSHBACKS

Grades, hours, rock types, etc

Ore & Waste productions

BLOCK MODEL (S)

Geometries

Destination optimization

SHORT-TERM

SCHEDULES

Do NOT over constrain!

- Identify your bottlenecks before going into detailed planning.

- Check how each constraint interacts with each other.

- Test how each assumption impacts the economics.

- Search for realistic lower risk and higher potential scenarios.

- Reveal hundreds of unseen distinctive solutions.

OK, BUT I NEED PROOF!

ANTOFAGASTA PLC · CEMEX · CODELCO · MMG · RioTinto · aclara

VALE · KINROSS · CAPSTONE COPPER · RAREX · Allkem · GLENCORE

MiningMath's approach has been applied for years by companies worldwide, with an increasing number of licenses sold, press releases and academic research also proving the consistency of the implementation.

Such unbelievable results are only possible due to MiningMath's proprietary Math Programming Solver©, which converts linear solutions into integer and non-linear ones. Learn more here.

BLOCK MODEL

Simplex run

Math Programming Solver©

Integer, non-linear transformation

REQUEST PROPOSAL

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