

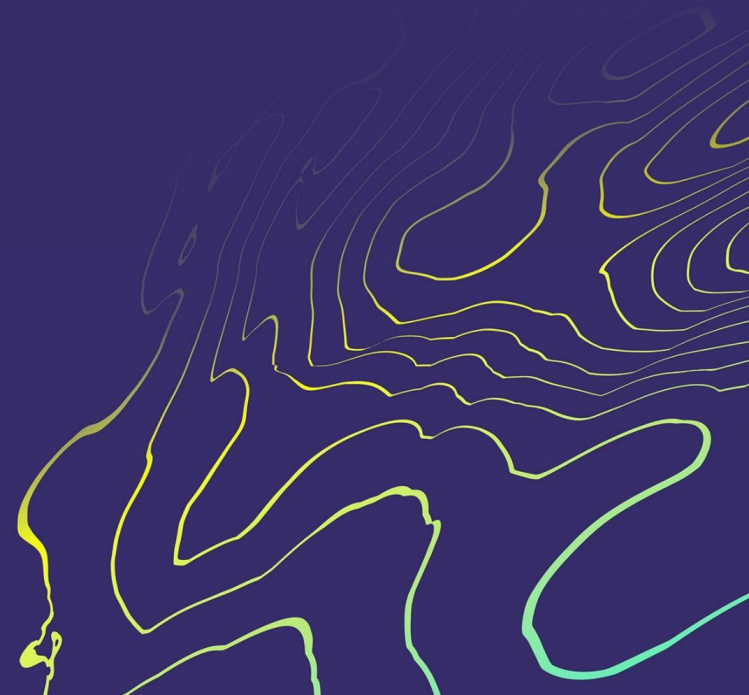


AusIMM Technology Forum 2025

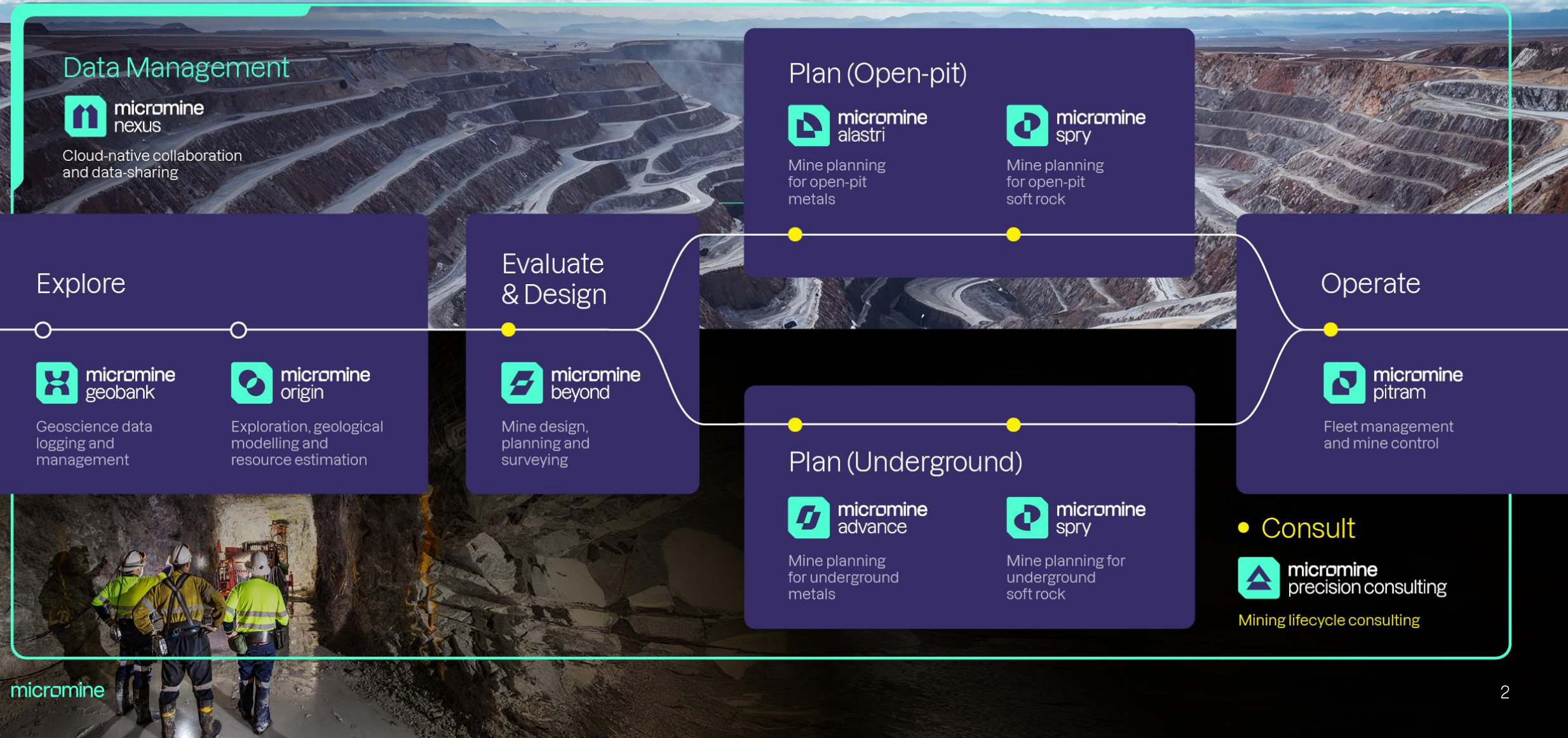
Smarter Strategic Geology:

"How AI can Transform Australia's Orebody Intelligence"

Simon Gobbett – Principal Consulting Geologist, Micromine



Next-generation technology across the entire mining lifecycle

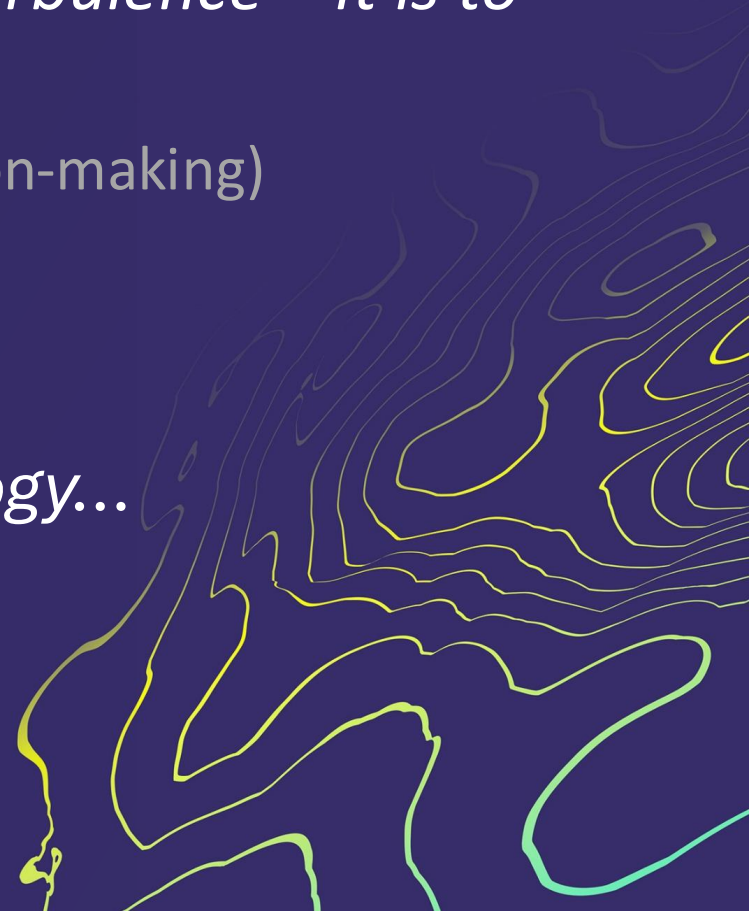


Opening

“The greatest danger in times of turbulence is not the turbulence—it is to act with yesterday’s logic.”

- Peter Drucker (management thinker, on future-oriented decision-making)

I want to take you on a journey into the future of geology...



The Challenge & the Opportunity

- *AI in Geology*

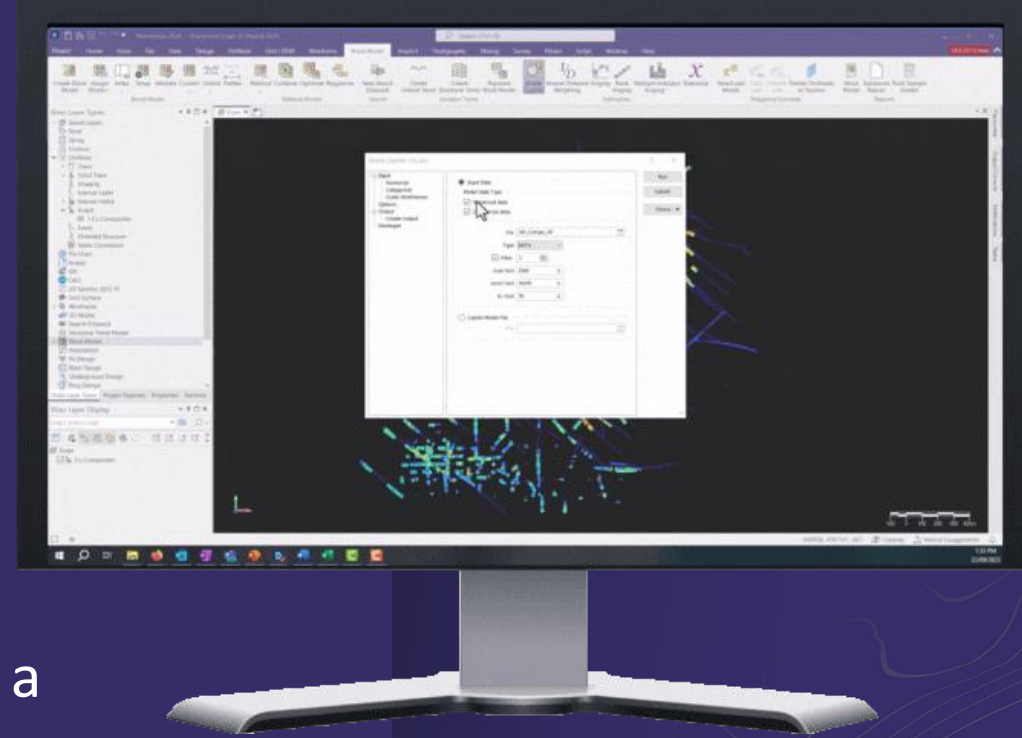
- Geology is a data-heavy science...
- Companies generate terabytes data...
- But what about the challenges?
- AI offers us much better options...



Micromine's AI Innovation:

- *What is Grade Copilot?*

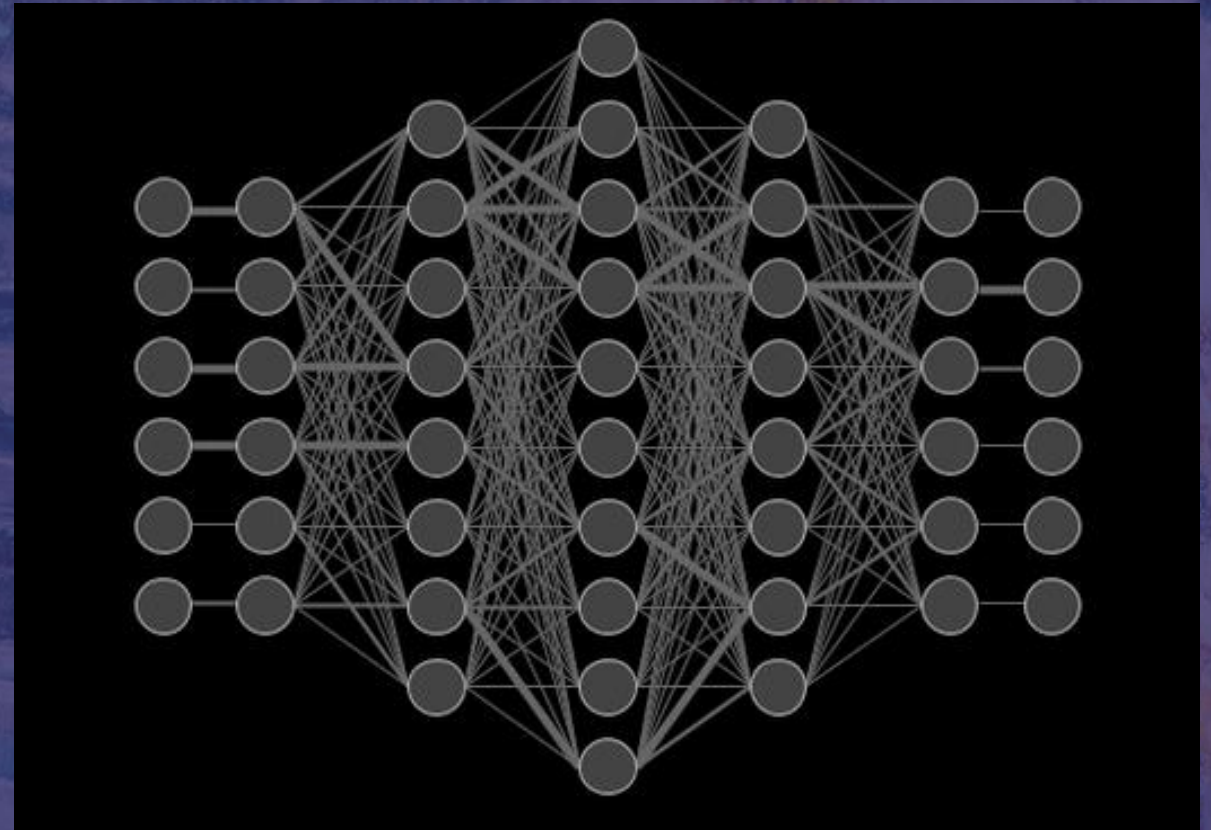
- "At Micromine, we asked: what if AI could work like a geologist - not a generic data scientist's tool, but something built for our workflows, our data, our challenges?"
- That's why we created *Grade Copilot* — built by geologists, for geologists



How It Works:

- *Neural Networks*

- What is the neural network?
- Applied to four main areas in the mining value chain:
 1. Exploration...
 2. Resource estimation...
 3. Grade control...
 4. Project evaluation...



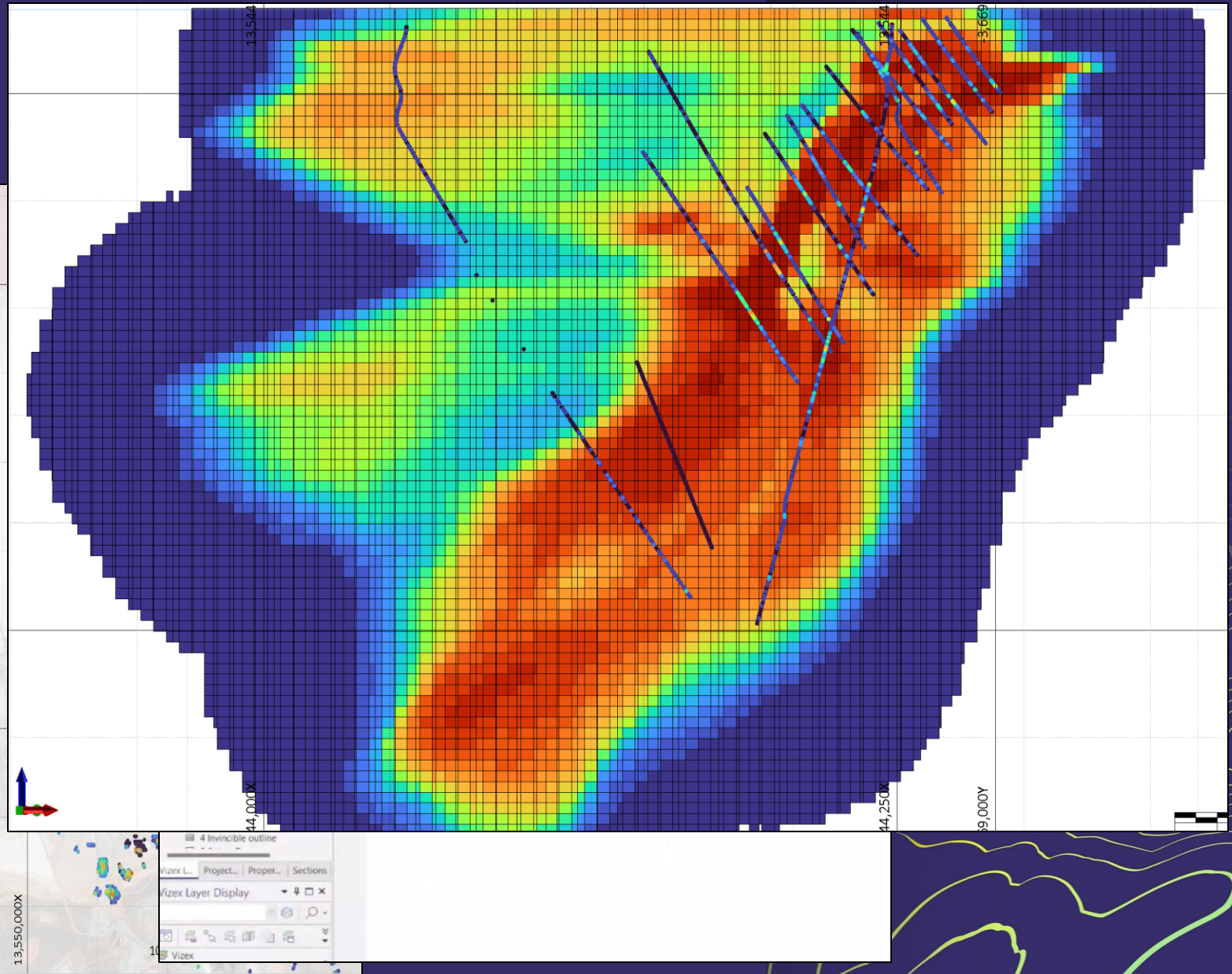
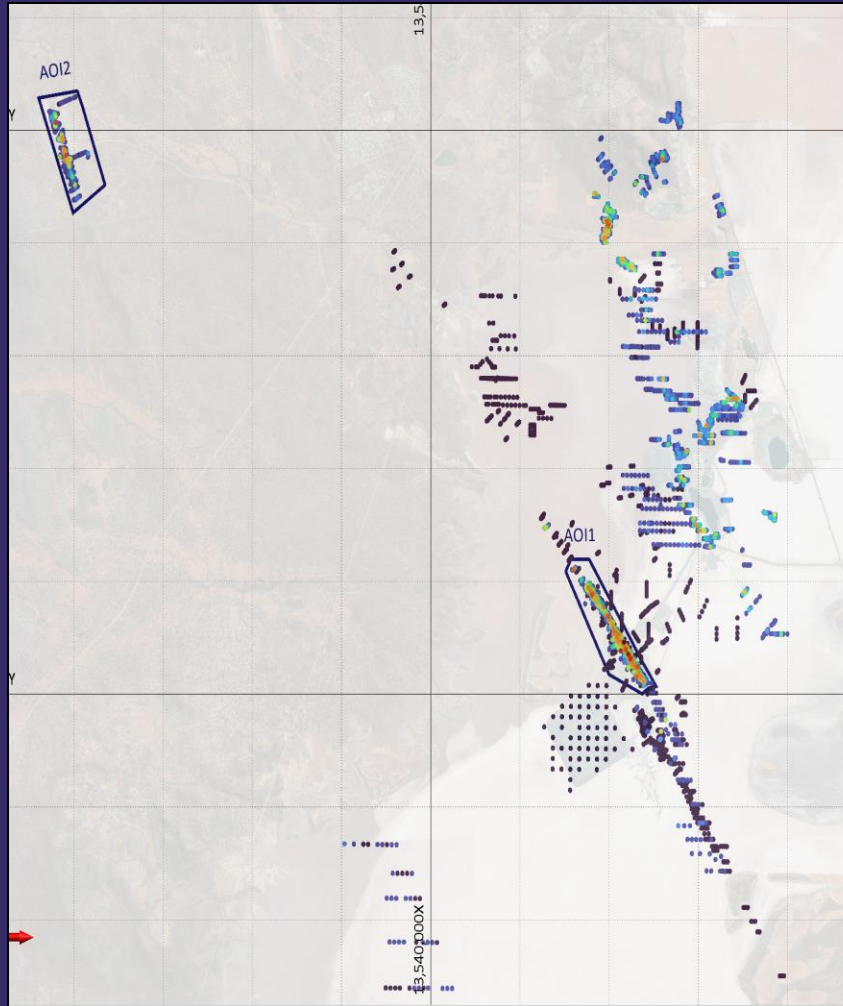
Examples in Action:

- *Exploration*

- In exploration, Grade Copilot it reveals hidden opportunities...
- For example, in exploration, it can rapidly show obvious targets...

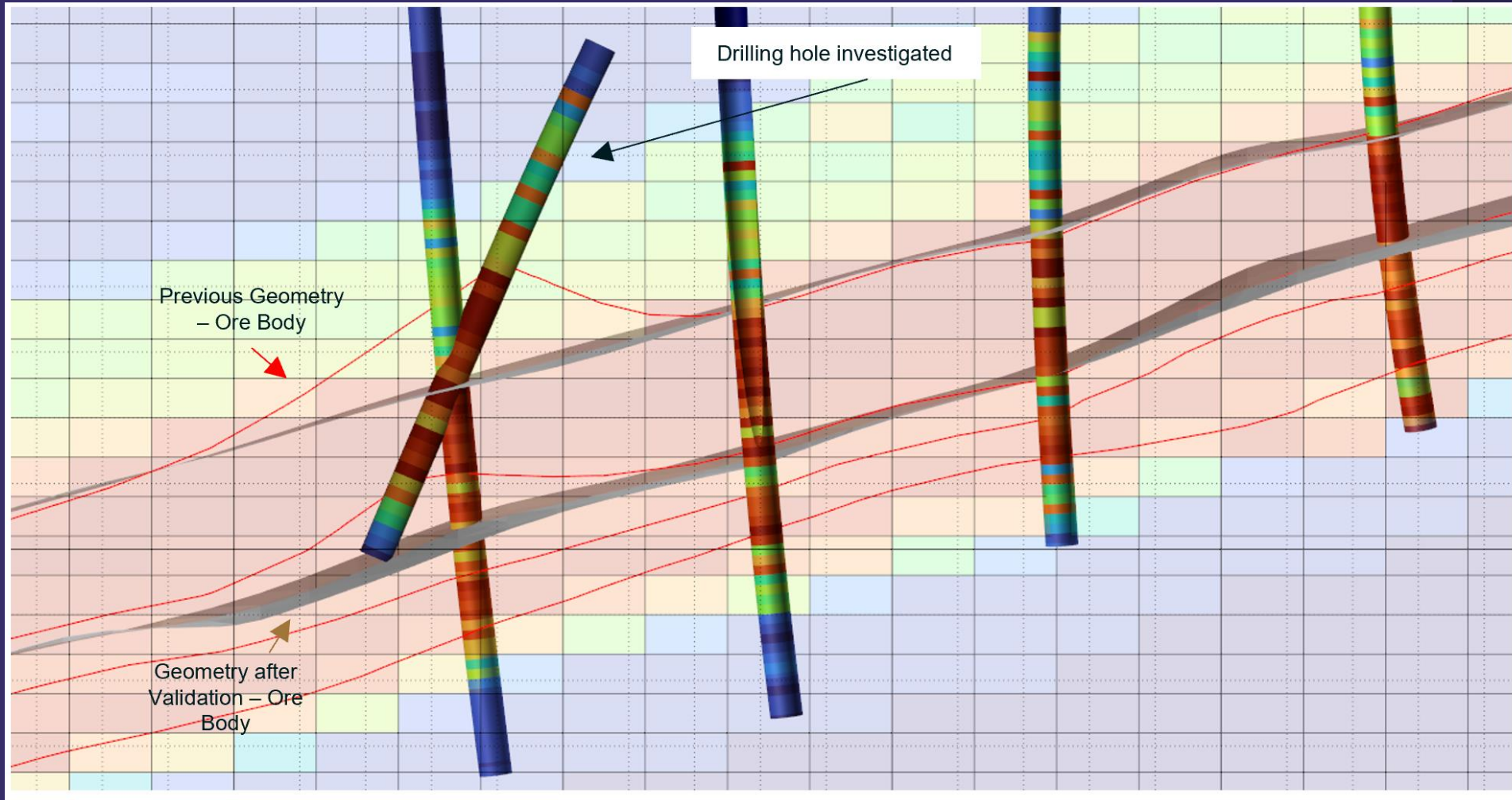
Examples in Action:

- *Exploration*



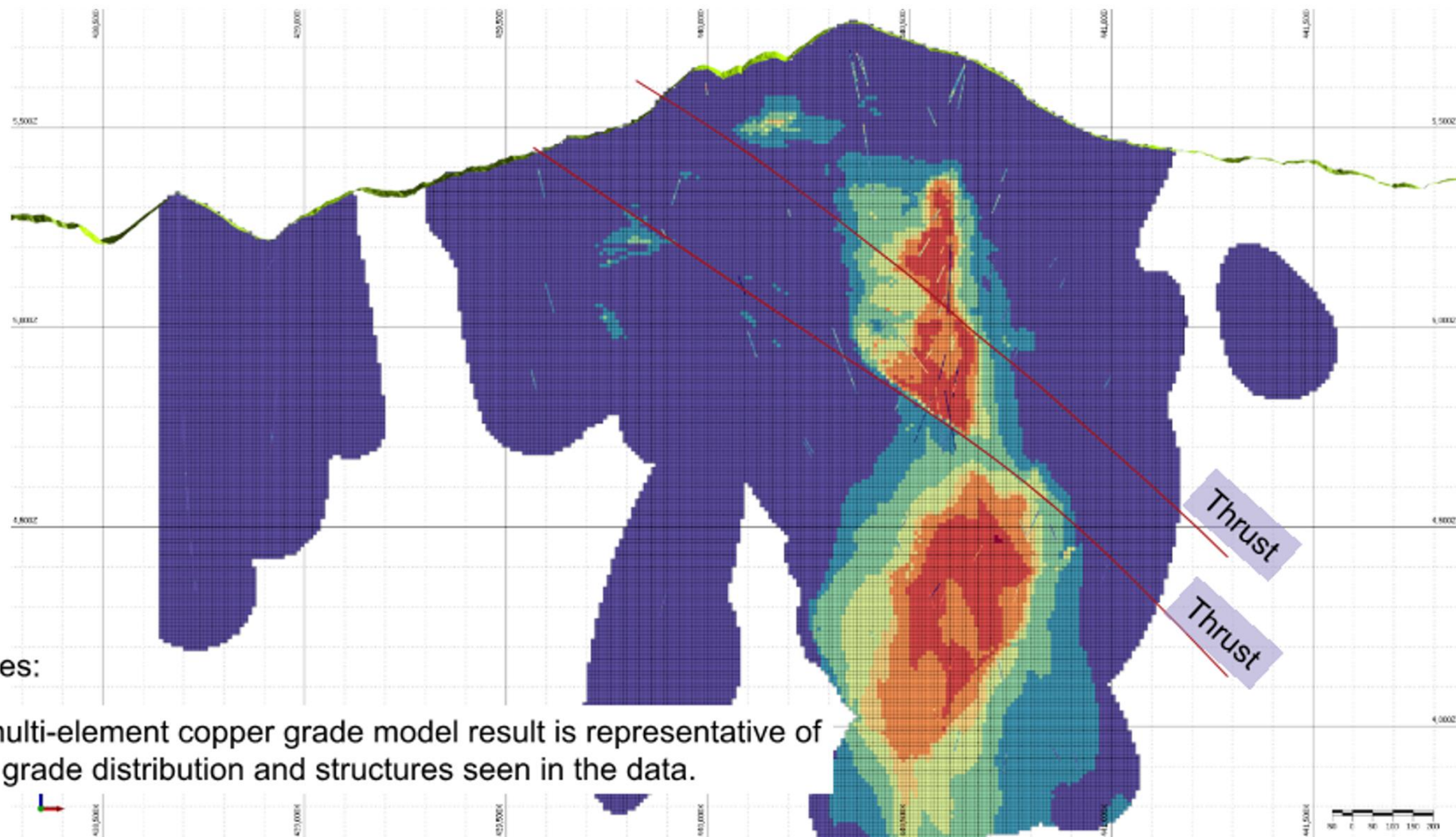
Examples in Action:

- *Exploration*



Examples in Action

- *Resource Estimation*

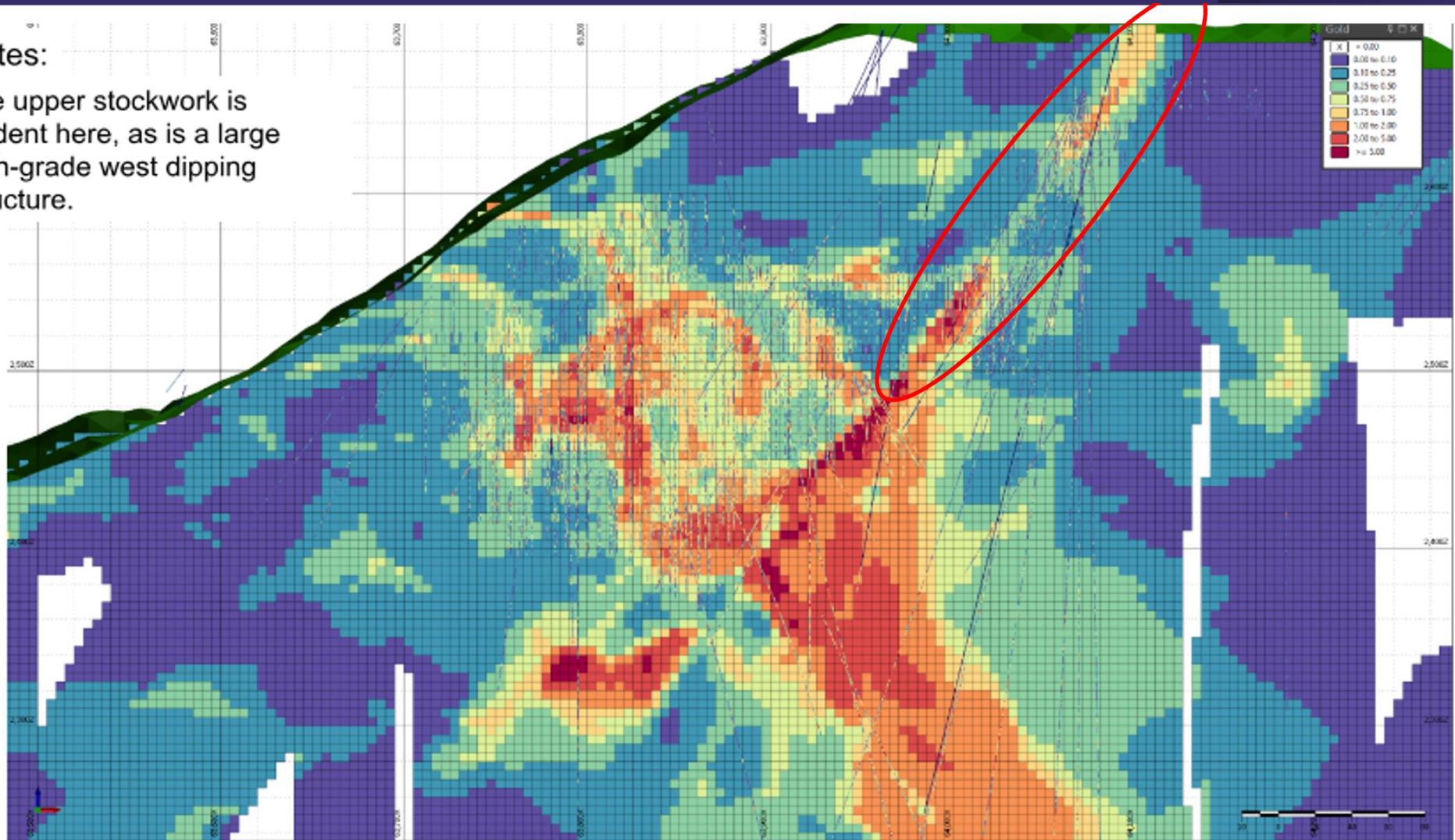


Examples in Action

- Resource Estimation

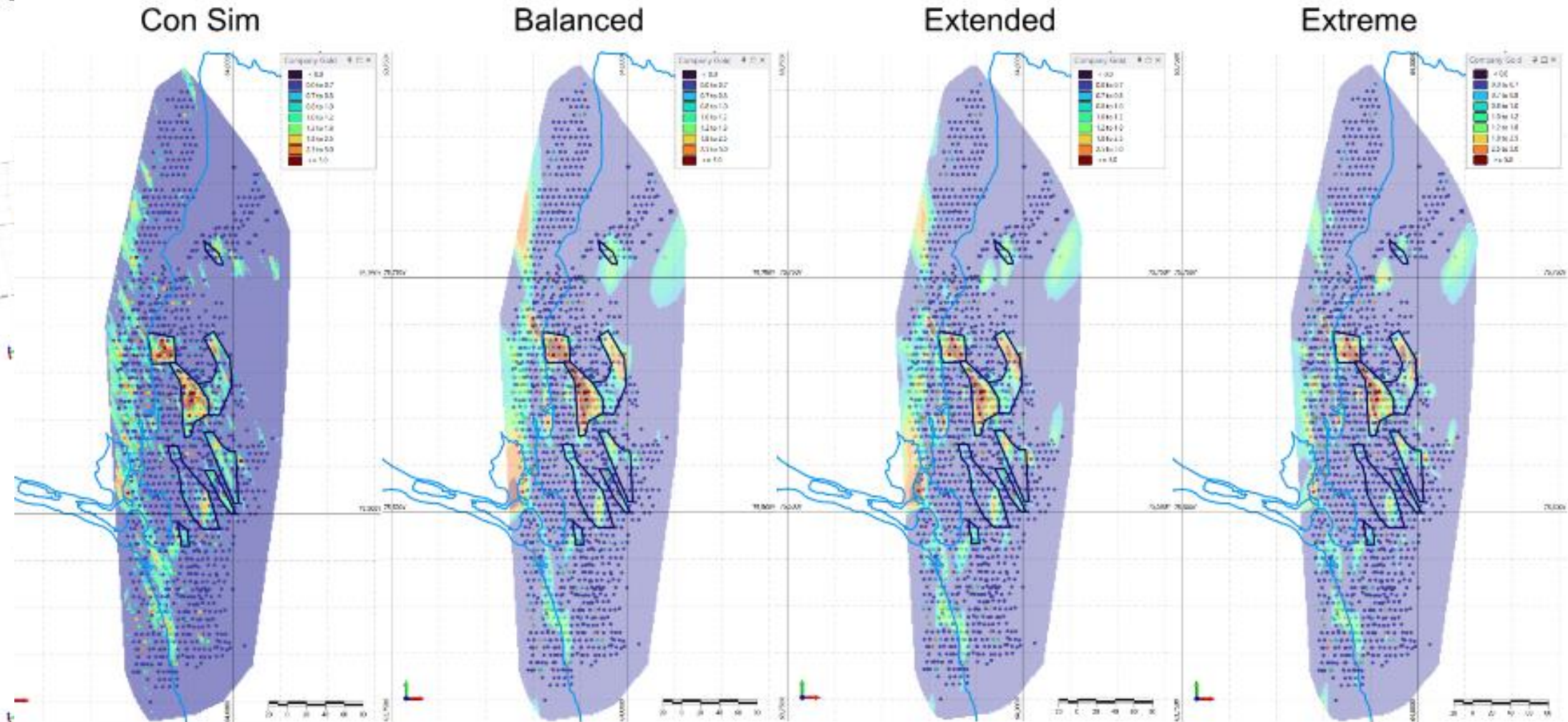
Notes:

The upper stockwork is evident here, as is a large high-grade west dipping structure.



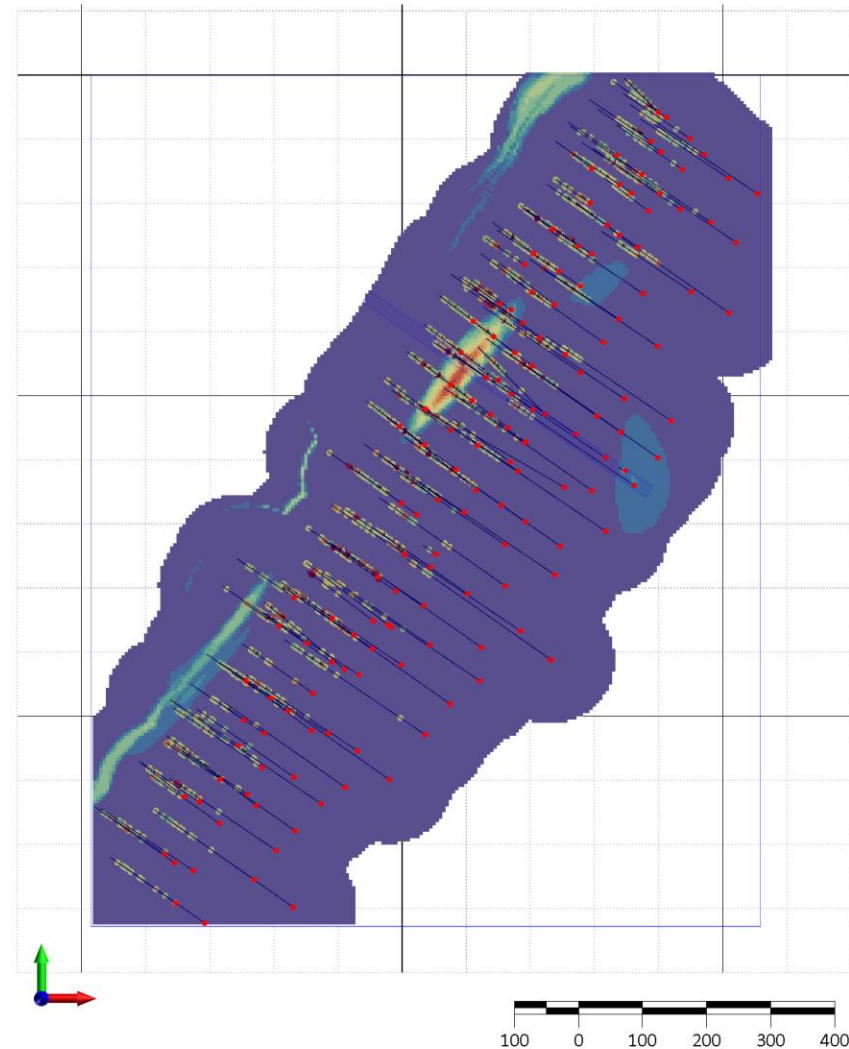
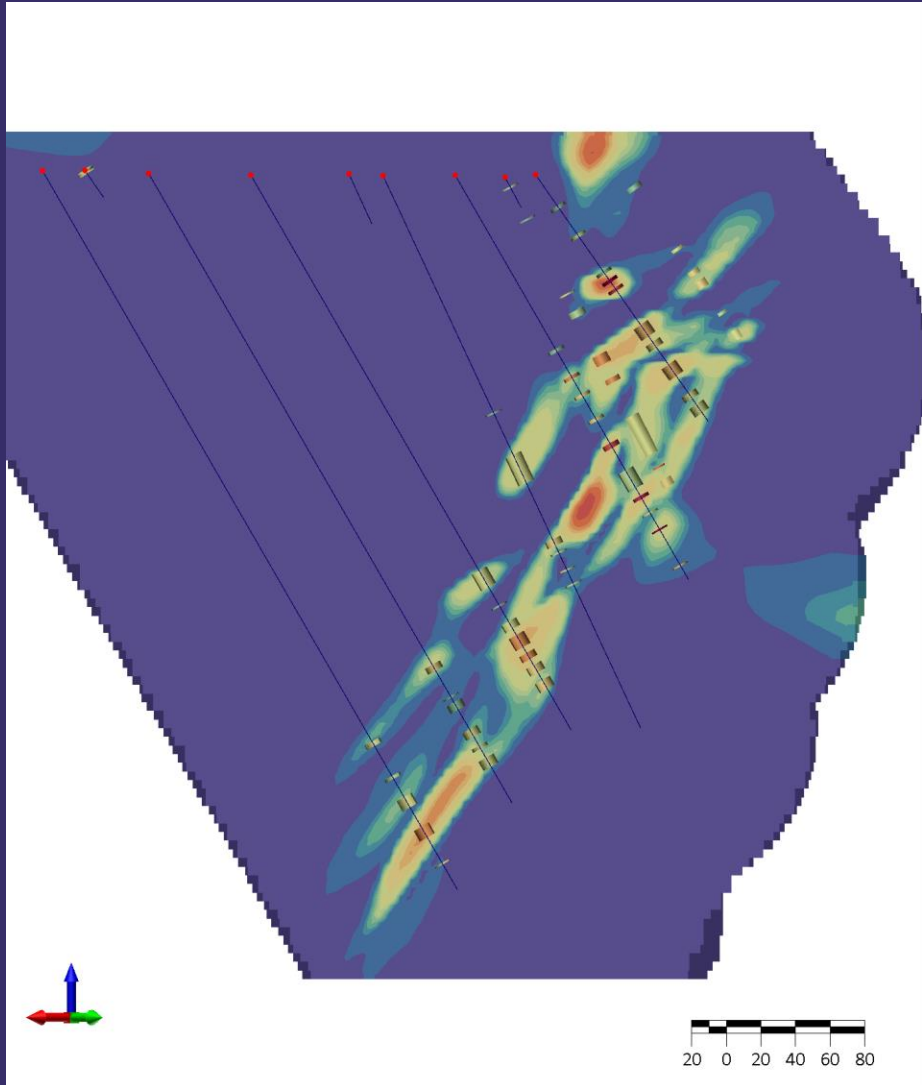
Examples in Action

- *Grade Control & Project Evaluation*



Examples in Action

- *Grade Control & Project Evaluation*



The Big Picture:

- *Why This Matters for Australia*

- The outcomes are clear:
- More time for strategic thinking...
- Faster analysis...
- Improved targeting...
- Consistency across teams...
- And for Australia, it means staying ahead in the global minerals & metals race...

Closing

“The goal is not to replace human intelligence, but to amplify it - to turn information into knowledge, and knowledge into wisdom, faster than ever before.”

- Satya Nadella, CEO of Microsoft

Smarter Strategic Geology isn't just a vision...

The companies that embrace it will lead...

micromine

Next generation
technology for mining

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