

15 October 2025

Integrating Data, Modelling, and Metallurgy: Micromine's Contribution to Modern Geometallurgy

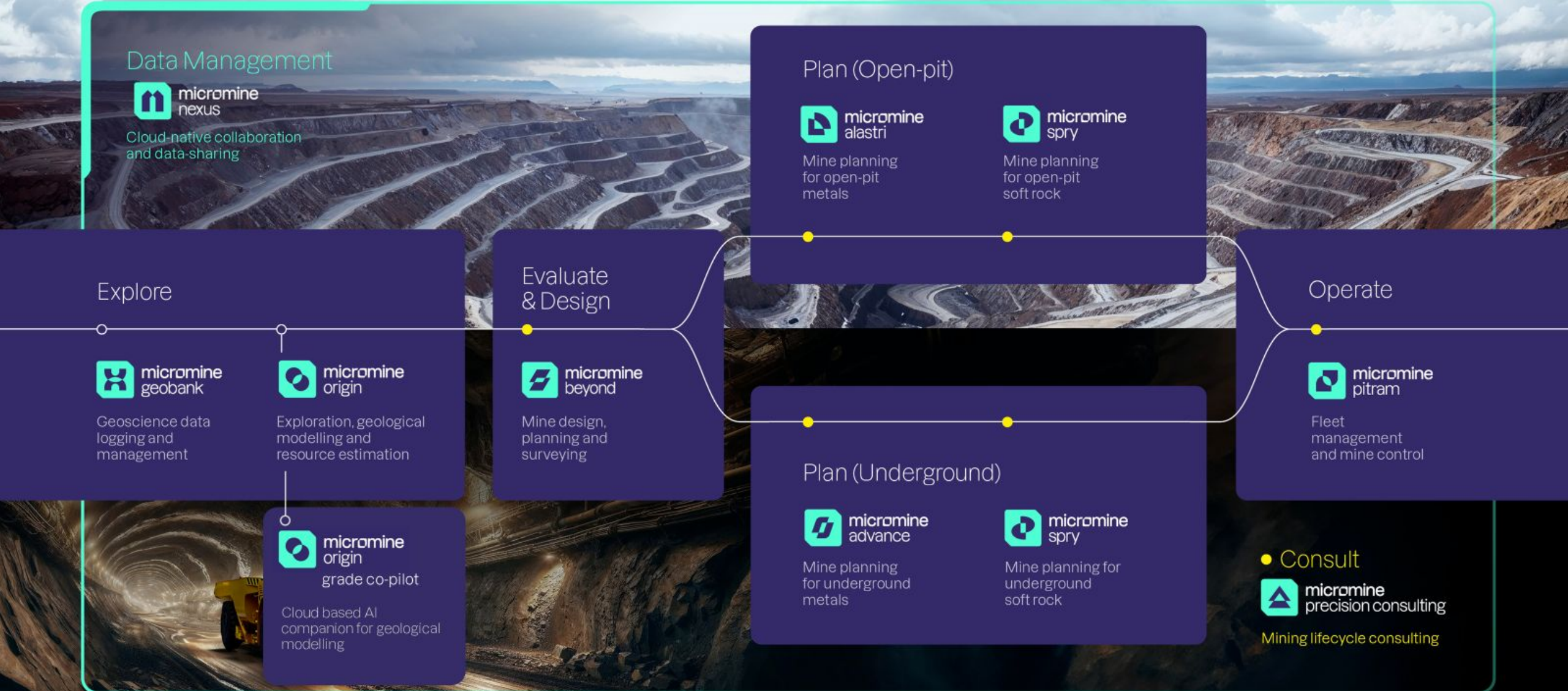
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Next-generation technology across the entire mining lifecycle

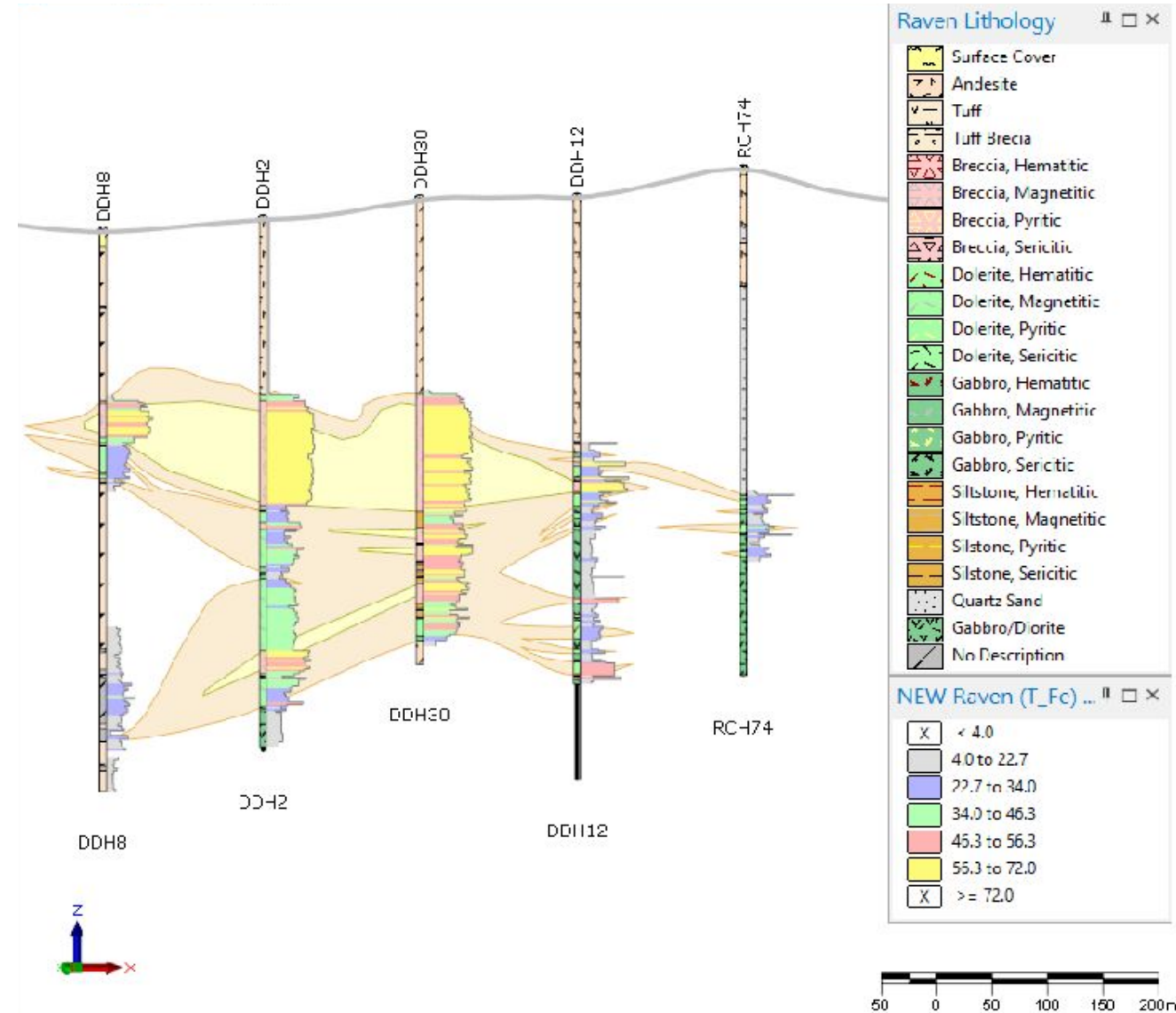


Geometallurgy – Raven Iron Project

Estimating variables like mass recovery remains complex, as limited data and non-linear behavior reduce the effectiveness of traditional geostatistical methods.

Practical Example example - Raven Iron Dataset, situated within a continental-facies volcanic sequence with host rocks comprising an andesite hangingwall and a dolerite/gabbro footwall. Magnetite and haematite are the dominant ore minerals.

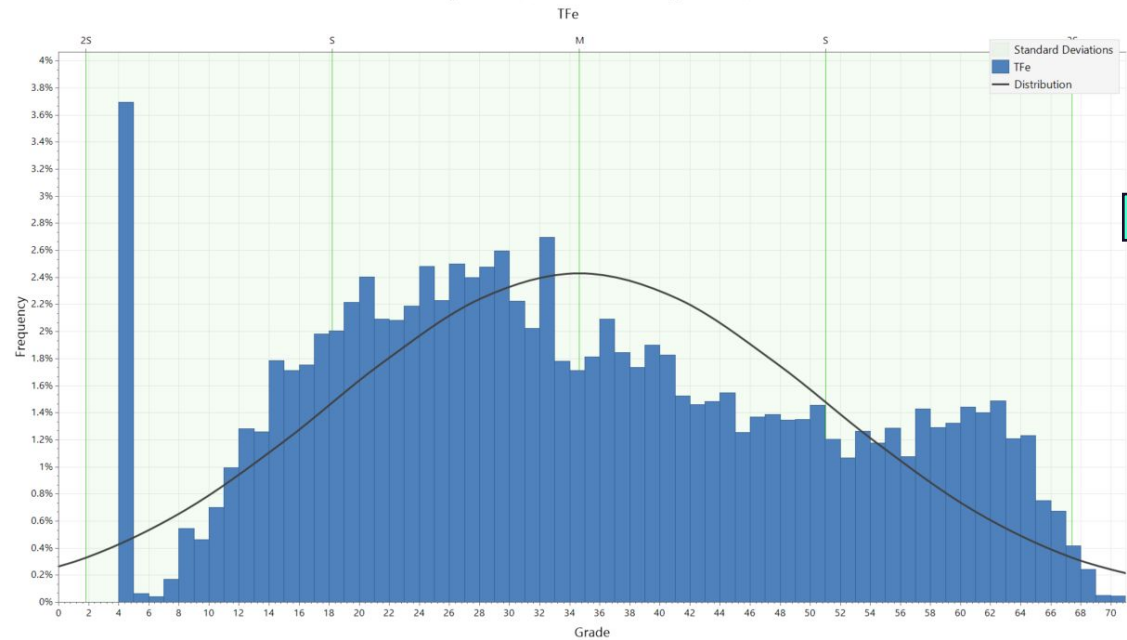
Grade variability is strongly linked to rock type - in particular, the magnetite-altered breccias that define the high-grade core. Wireframes are displayed for the high-grade breccia ore and surrounding low-grade envelope.



Micromine Statistics – Histogram, Boundary Analysis

Histogram | Decompose | Manual

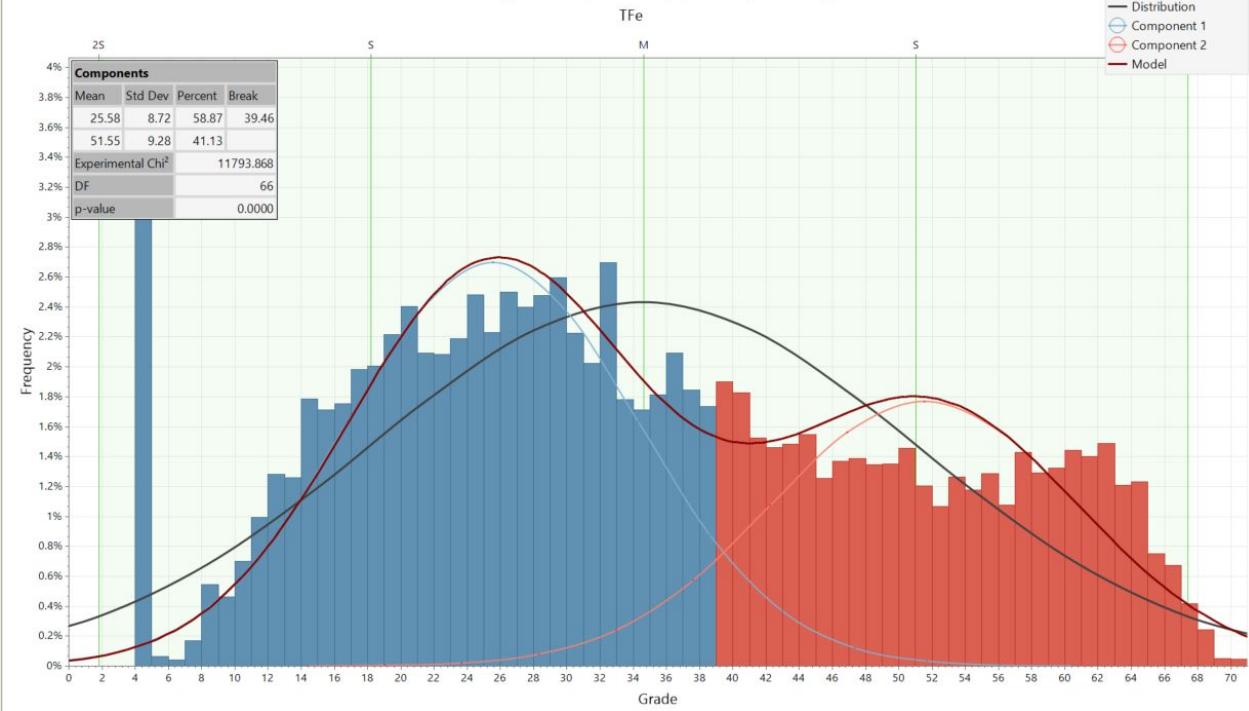
Histogram (Raven_Assay.DAT)



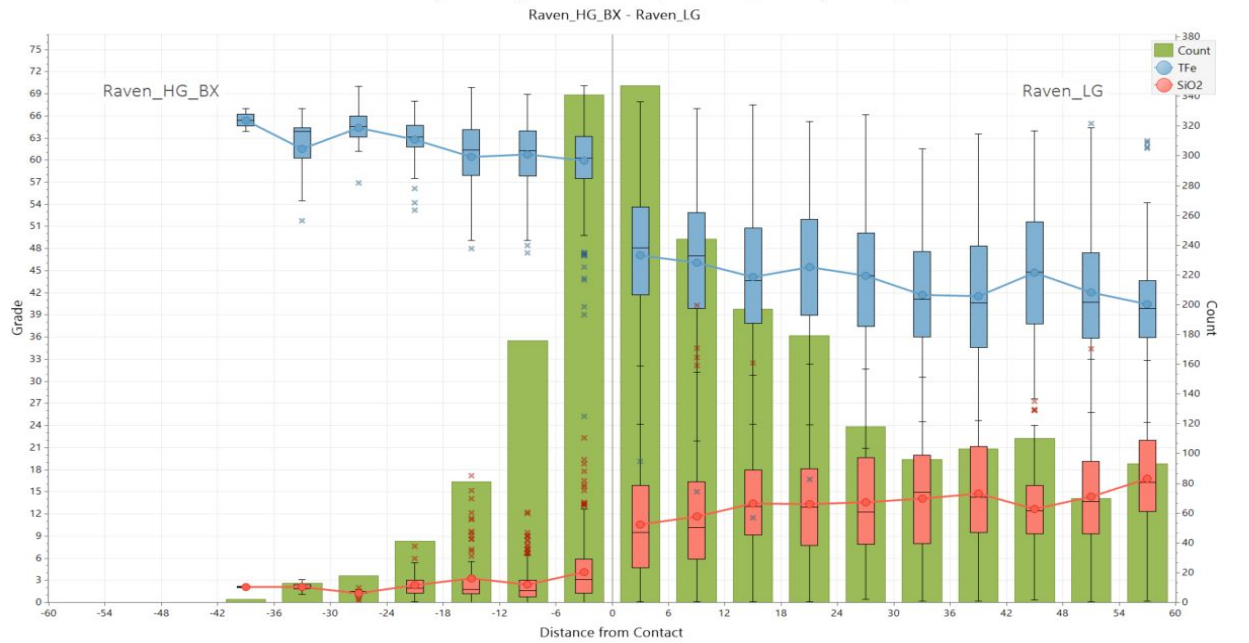
Minimum Value	4.00
Maximum Value	70.06
Mean	36.26

Standard Deviation	15.6
Coeff. of Variation	0.43
Median	34.30

Histogram (Raven_Assay.DAT)



Boundary Analysis Chart (Raven_Assay.DAT)

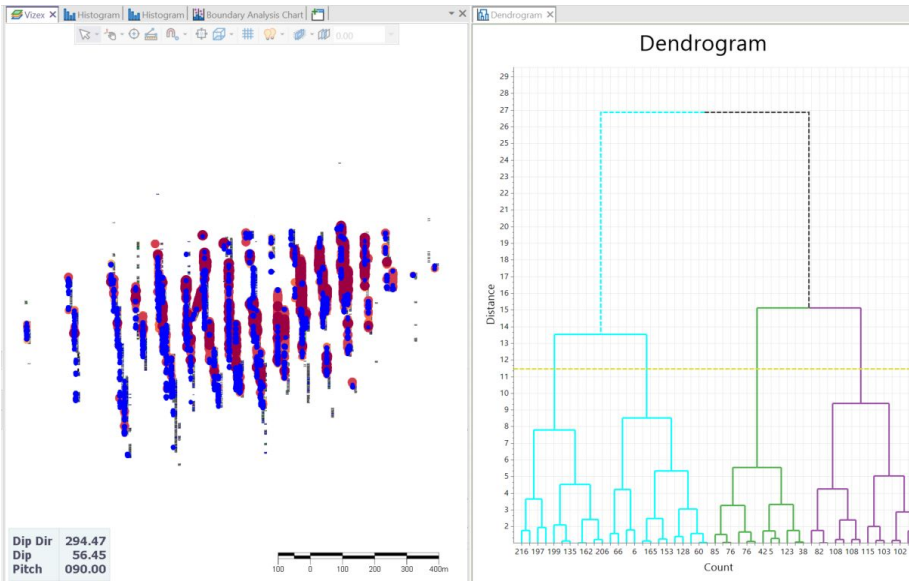
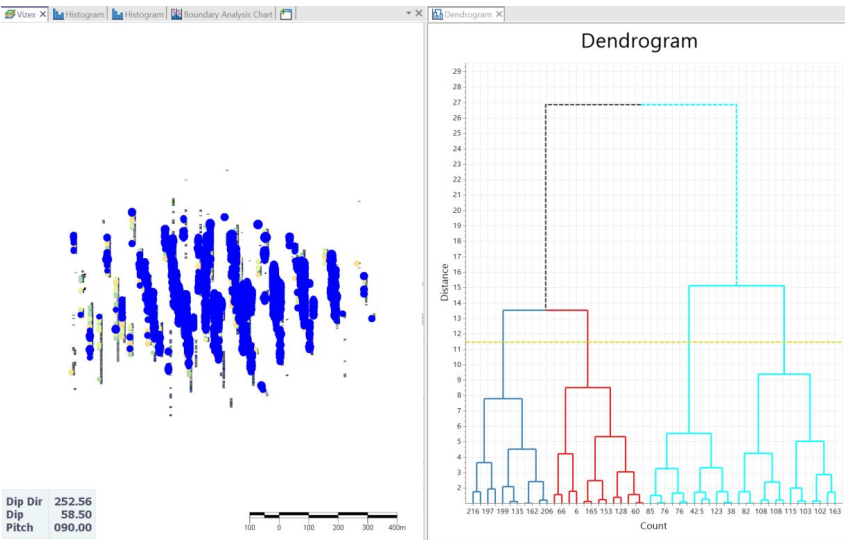
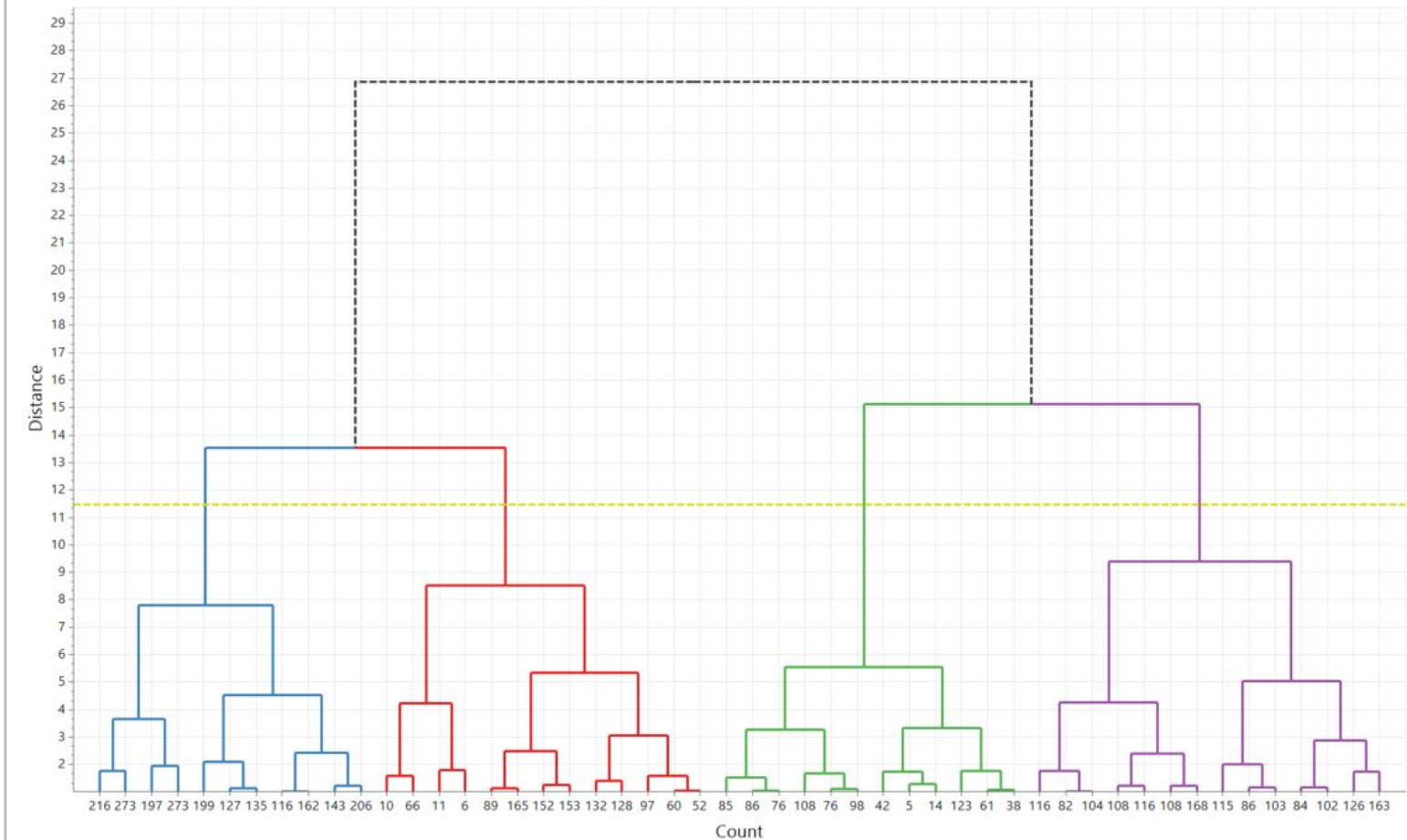




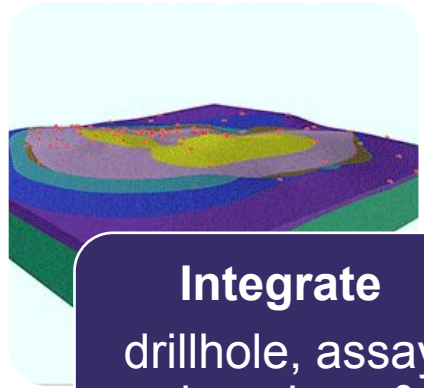
Micromine – Dendrogram

STATS| DENDROGRAM | TFE

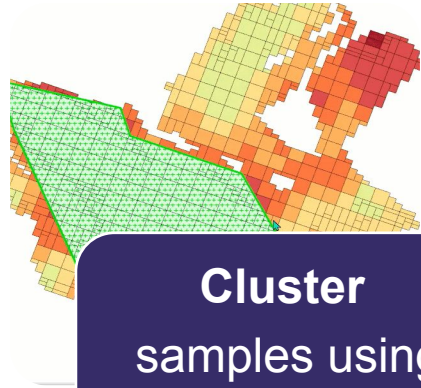
Dendrogram (Raven_Assay.DAT)



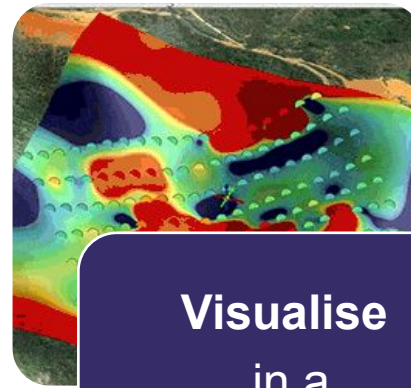
Hierarchical Clustering & Dendrogram: Unlocking Geometallurgical Insight



Integrate
drillhole, assay,
mineralogy &
metallurgical
data = domains



Cluster
samples using
hierarchical
algorithms to
reveal
relationships



Visualise
in a
dendrogram to
define domain
thresholds



Map
clusters in 3D
and link to
process
behavior or
recovery models

Geometallurgical Value:

- Data-driven domain definition
- Predicts metallurgical performance early
- Strengthens geology–metallurgy integration
- Supports smarter blending, planning & recovery optimisation



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This complimentary, action-packed 1.5 day will offer valuable insights for subscribers, including:

Industry trends,
Discover practical strategies to optimize every stage of the mining value chain,
Experience firsthand how Micromine's integrated suite of solutions is shaping the future of mining



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