

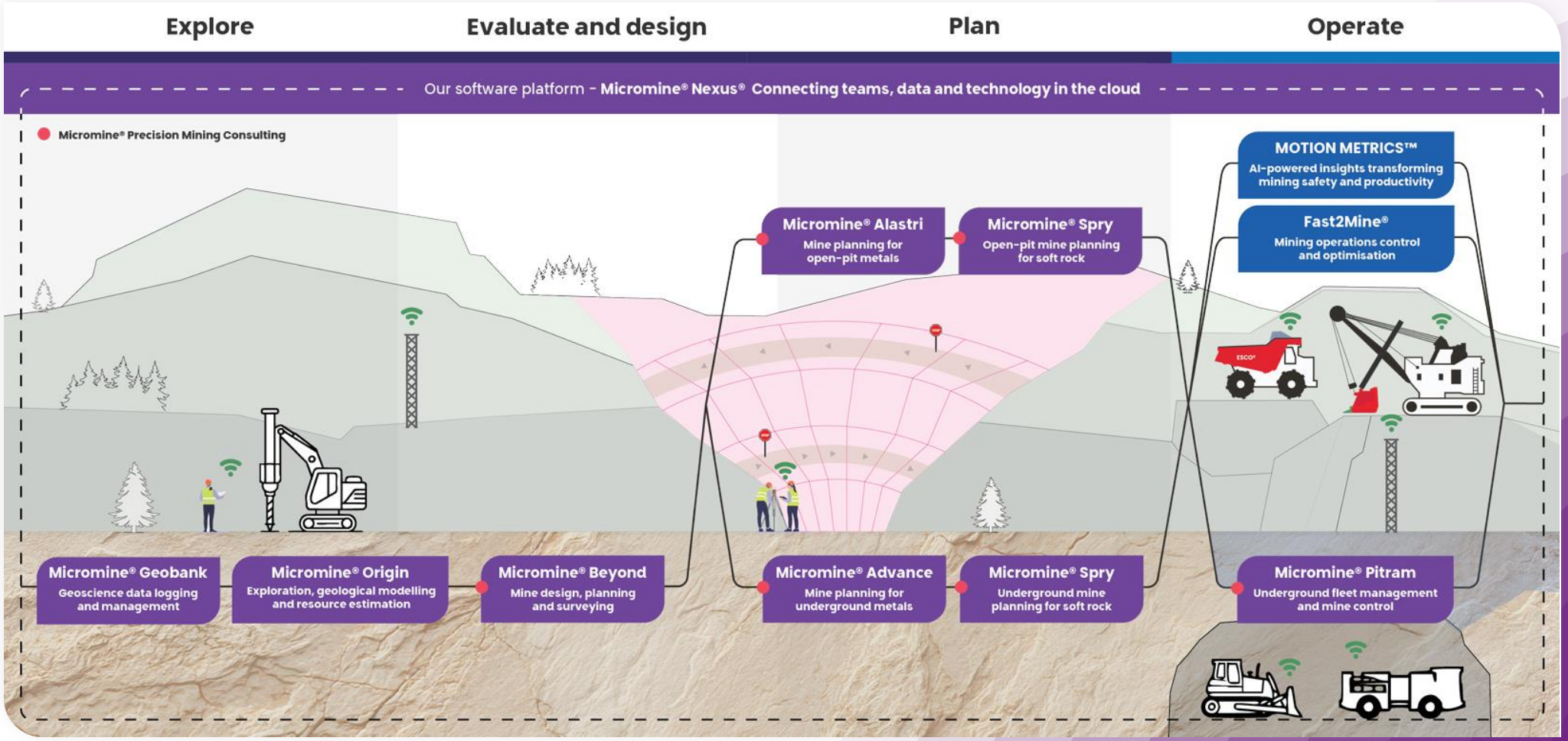
Critical innovations for a sustainable mining future

AusIMM, November 2026

Mining technology for a sustainable future

One Weir

Our software solutions enhance productivity and sustainability from exploration to extraction



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Collaborative implementation – removing technical silos

Connected Assets - Real-Time Insight

By applying sensor stacks to critical assets equipment becomes digitally connected, providing continuous visibility into asset health, performance and operating conditions through real-time data.

Data-Driven Decisions Anywhere

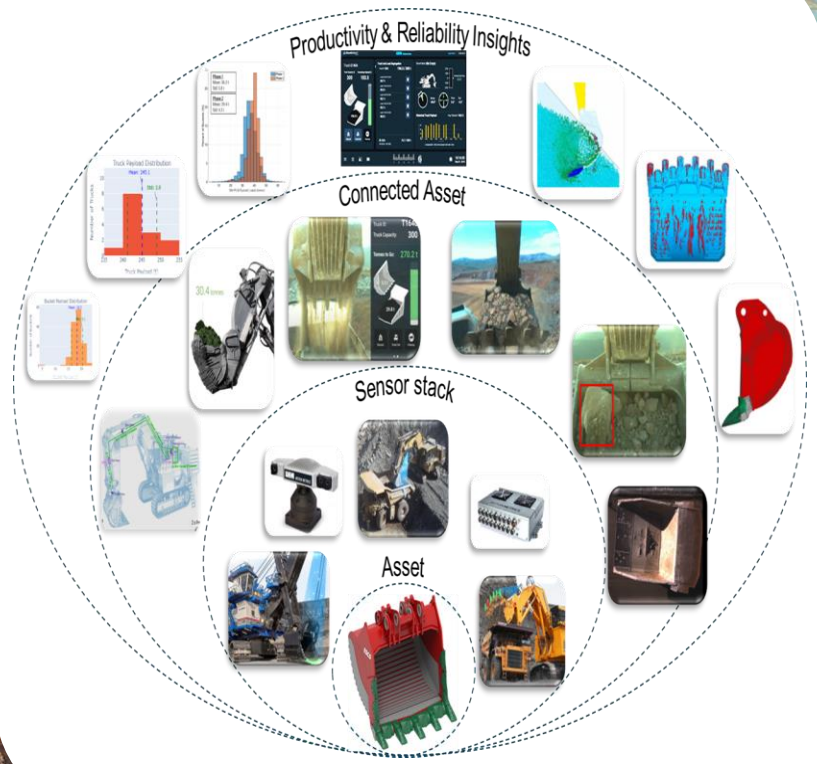
Remote-access intelligence and advanced analytics turn raw data into actionable insights, enabling informed decision-making based on facts rather than assumptions.

Predictive Maintenance & Reduced Disruption

Health and performance monitoring supports predictive and prognostic analysis, helping identify issues before they impact operations, minimising downtime and maximising asset reliability and recovery.

Safer, More Sustainable Operations

A deeper understanding of asset behaviour improves reliability, enhances safety outcomes, extends asset life, and supports more sustainable mine-site operations.



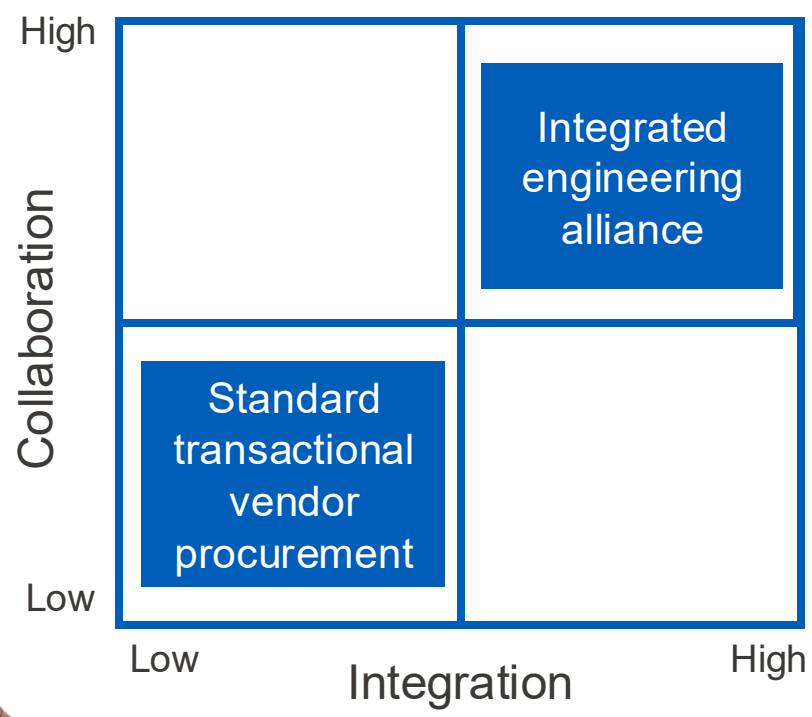
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Collaborative implementation – removing technical silos

Integrated solutions: Avoid siloed approaches by leveraging multidisciplinary teams and technologies that consider problems from all perspectives

Early test work and validation: Use Weir Technology Centres to develop, trial and assess solutions and validate flowsheet designs before deployment

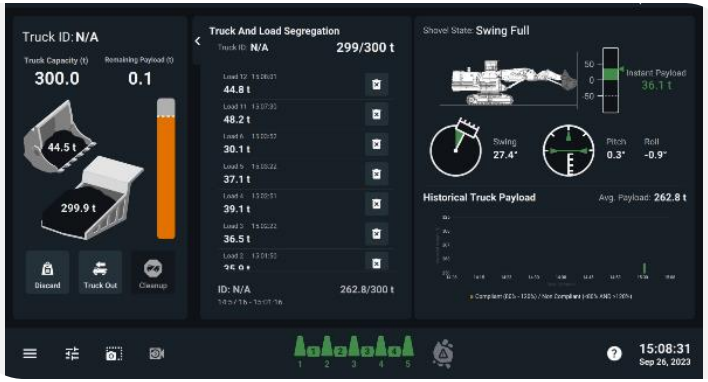
Shared sustainability goals: Work in partnership to solve sustainability challenges and reduce environmental impact across operations



Weir Mining Technology

Introduction to Real-Time Payload Monitoring (PLM)







Real-time Feedback for the Operator

Dedicated in-cab touch screen display.

Displays material by weight in the bucket.

Tracks and displays material weight loaded in Truck by weight from each bucket pass.

Audible and Visual Alerts

User-friendly interface.

Graphical and audio indicators help operators adjust each bucket load.

Dozens of performance metrics are captured and logged to the cloud for each system.

Automatically detects when a truck leaves and a new truck is being loaded.

Consistency and Efficiency

One solution provides a single source of payload metrics.

Bucket-by-bucket measurements allows the shovel operator to optimize each truck.

Only one system per shovel is required - as opposed to one system per haul truck, reducing overall maintenance and calibration.

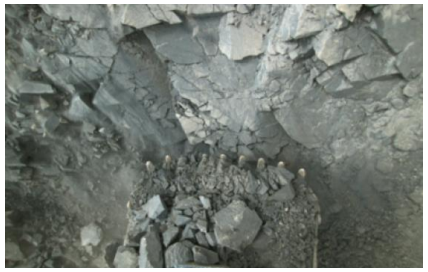
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Introduction to In-Bucket Fragmentation Analysis

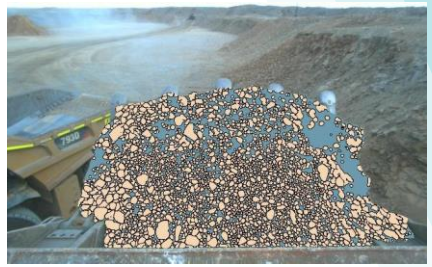
- **24/7 Fragmentation.**
- **Reducing the Powder Factor.**
- **Verifying Blasting Performance.**
- **Fully automated and Incorporated with Other Software.**
- **Comprehensive customizable reports.**



Too fine

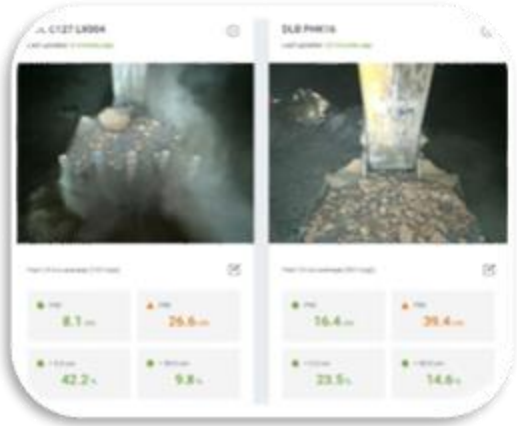


Too coarse



Optimal Particle Size Distribution

Live Metrics Manager Pro ™ Results

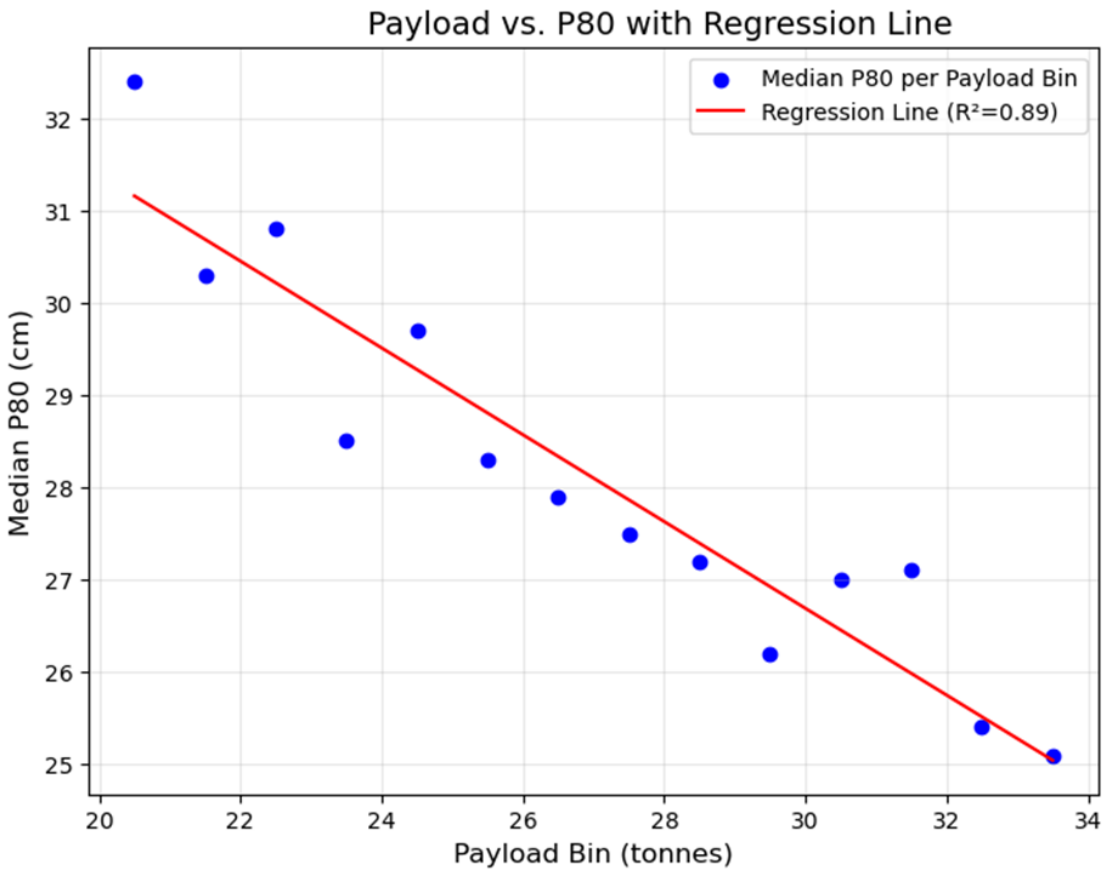


Comprehensive customisable reports



Field Payload Data vs. Particle Size Distribution

There is a corresponding correlation between decreasing median P80 (cm) and increasing payload values.

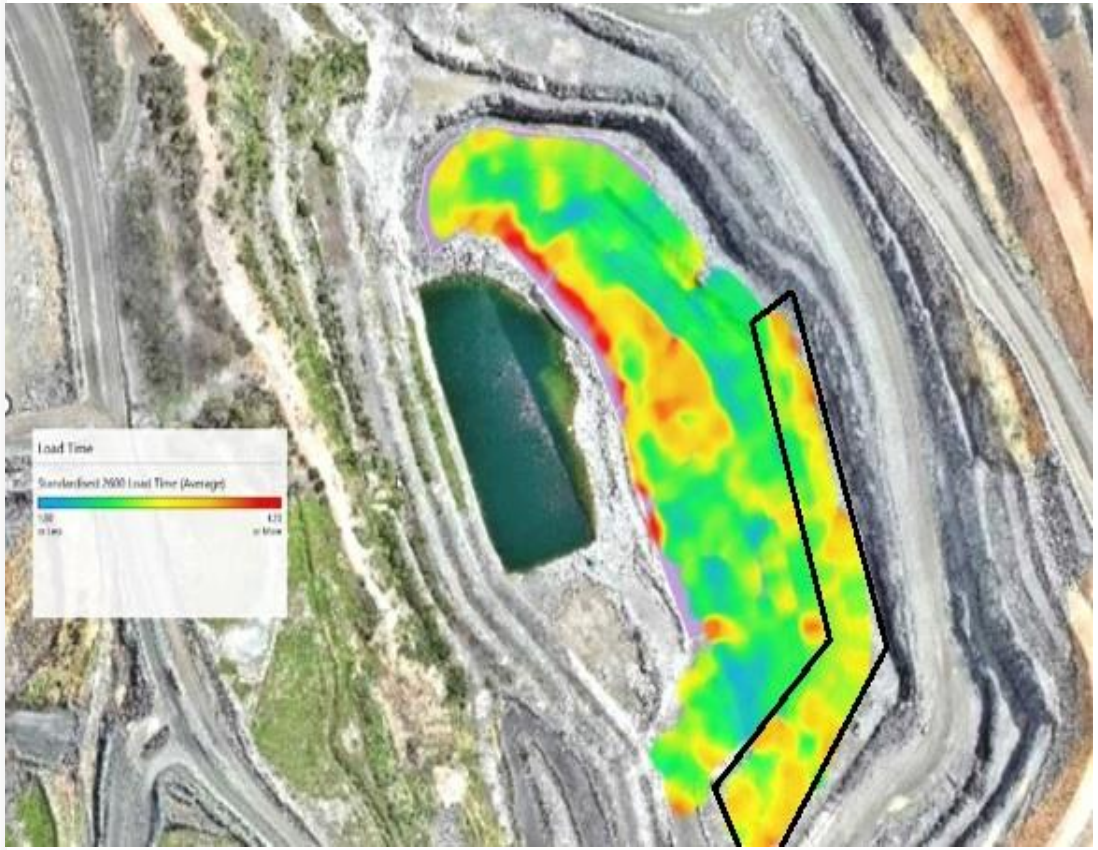


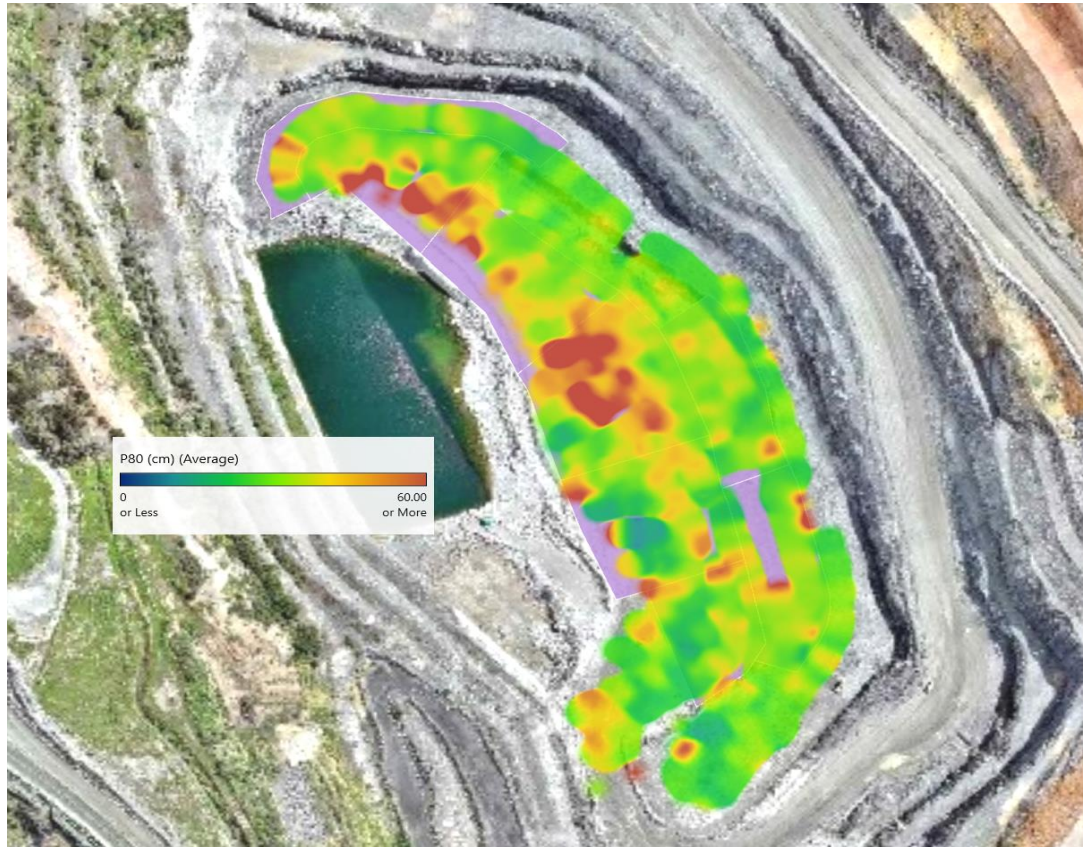
Productivity by Location		
LOAD_LOCATION	P80 (cm) (Median)	Bucket Payload (tonnes)
PIT_1285_1861	12.9	26.3
PIT_1175_3202	19.5	27.8
PIT_1175_3208	26.3	27.5
PIT_1175_3206	28.7	27.3
PIT_1175_3212	40.7	31.9
PIT_1254_1606	24.2	24.6
PIT_1258_1606	27.9	25.6
PIT_1250_1605	26.4	24.6
PIT_1254_1609	23.1	23.1
PIT_1260_1613	30.4	25.9
PIT_1260_1650	27.4	24.4
PIT_1175_3207	27.7	24.5
PIT_1254_1607	35.1	27.2
PIT_1254_1605	35.1	26.3
PIT_1258_1607	32.5	25.2
PIT_1250_1651	37.2	26.2
PIT_1250_1601	30.1	22.7
PIT_1260_1614	38.6	24.4
PIT_1258_1618	42.0	25.0
PIT_1258_1609	36.9	22.6
PIT_1180_3221	32.9	20.7
SP_INPIT_H	38.5	22.7
PIT_1175_3203	54.6	26.1
PIT_1260_1612	68.0	24.7
PIT_1175_3201	80.8	28.1

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Centralized Data Analysis Dashboards

Blasting Block & PSD Heat Maps

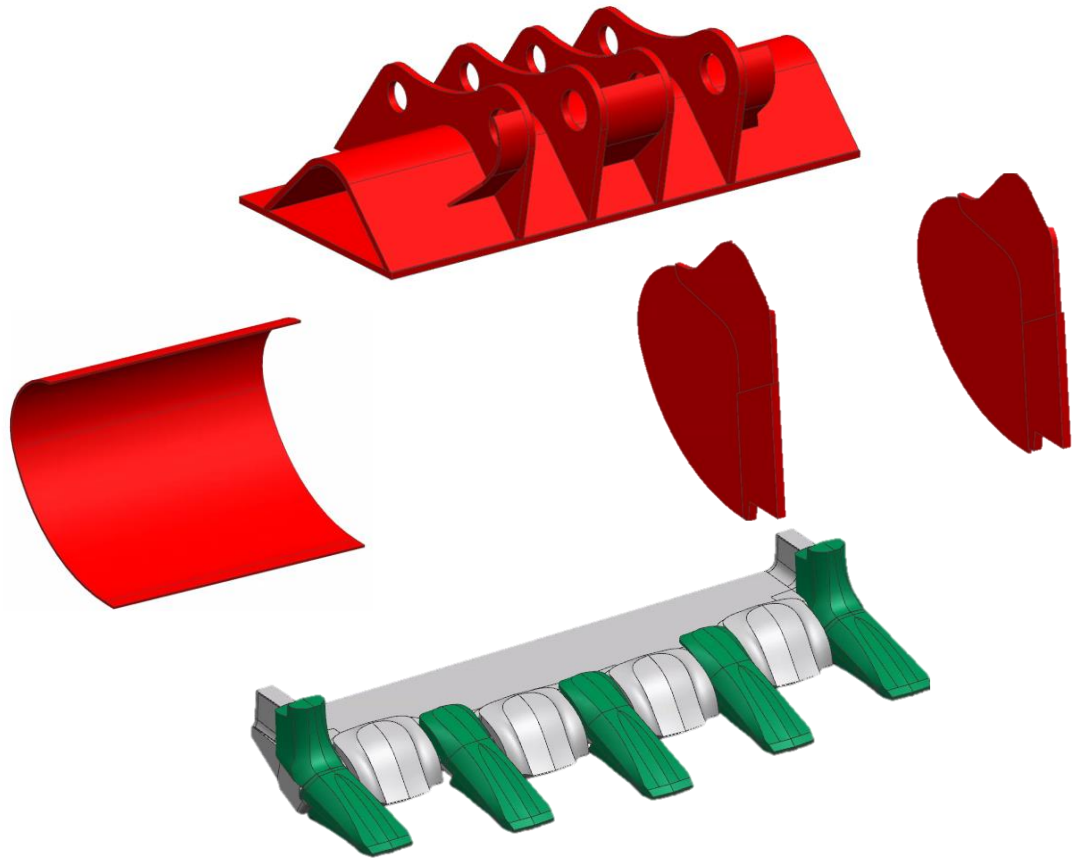




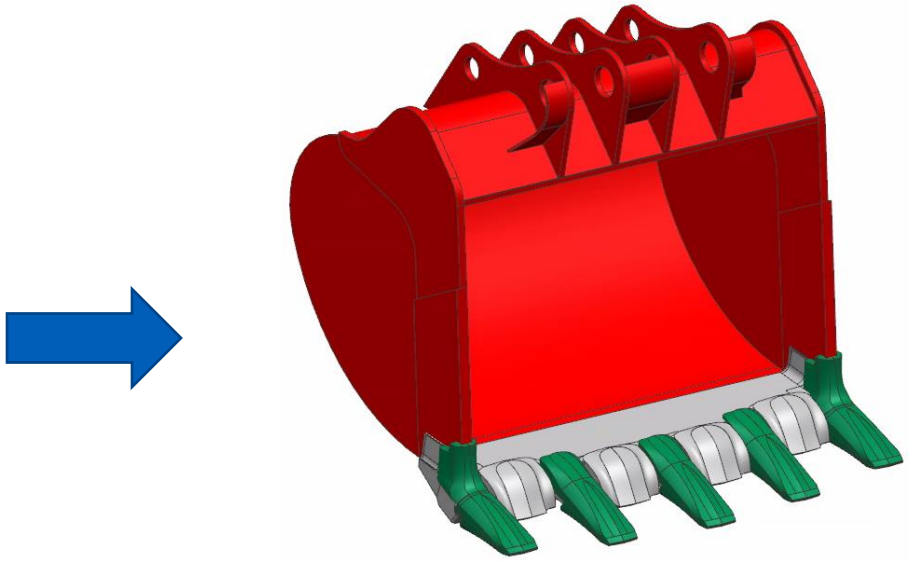
Weir Technology in Action

Our Design Philosophy

1. Deconstruct the bucket and study each sub assembly



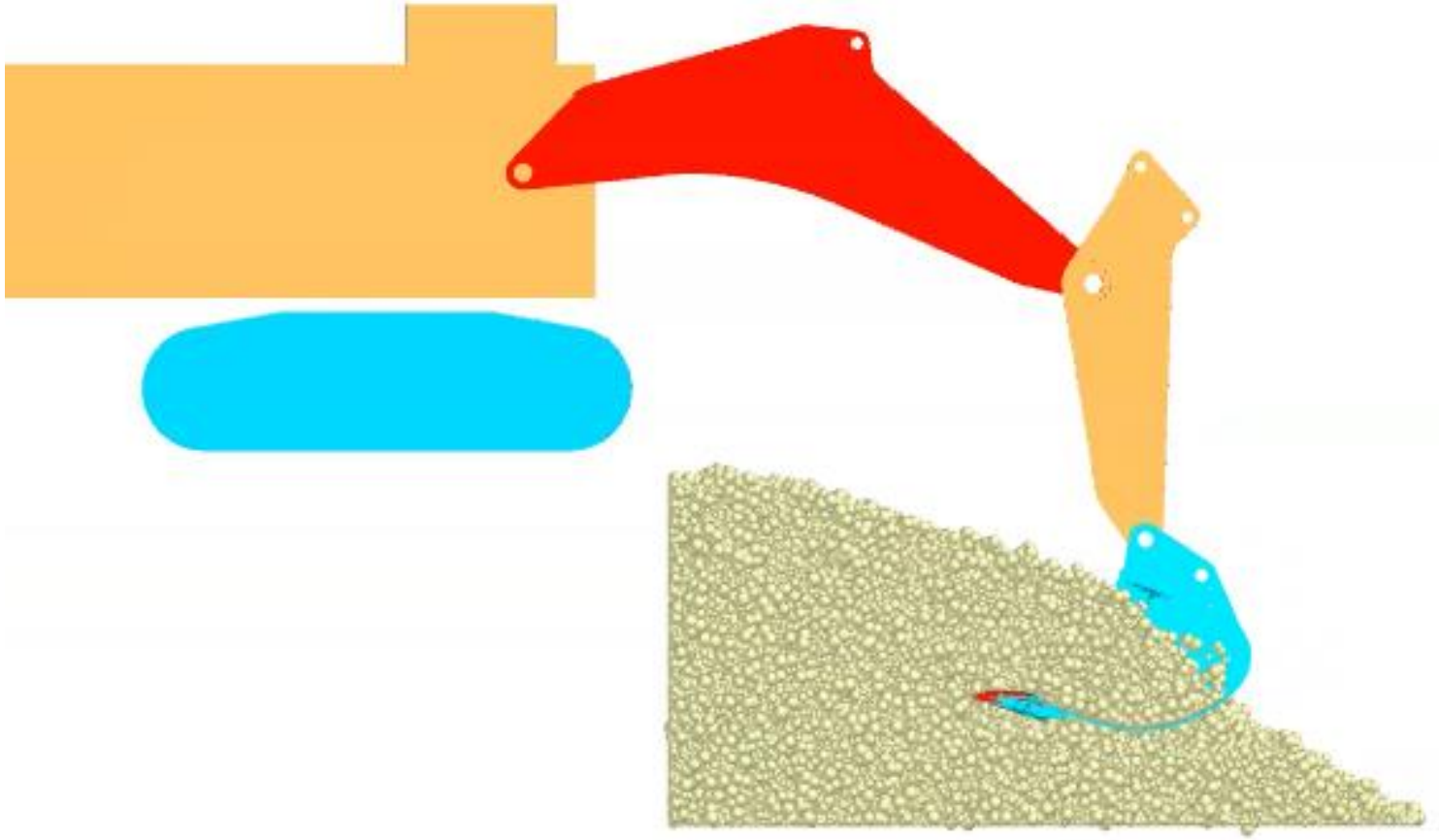
2. Aggregate the marginal gains from each component

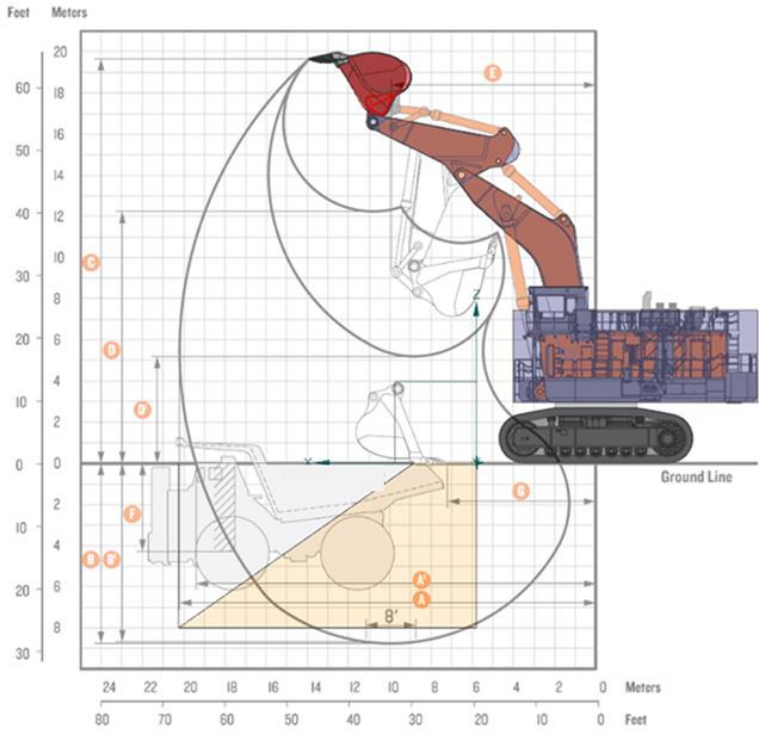


What features do we need to study?
How do we study them?

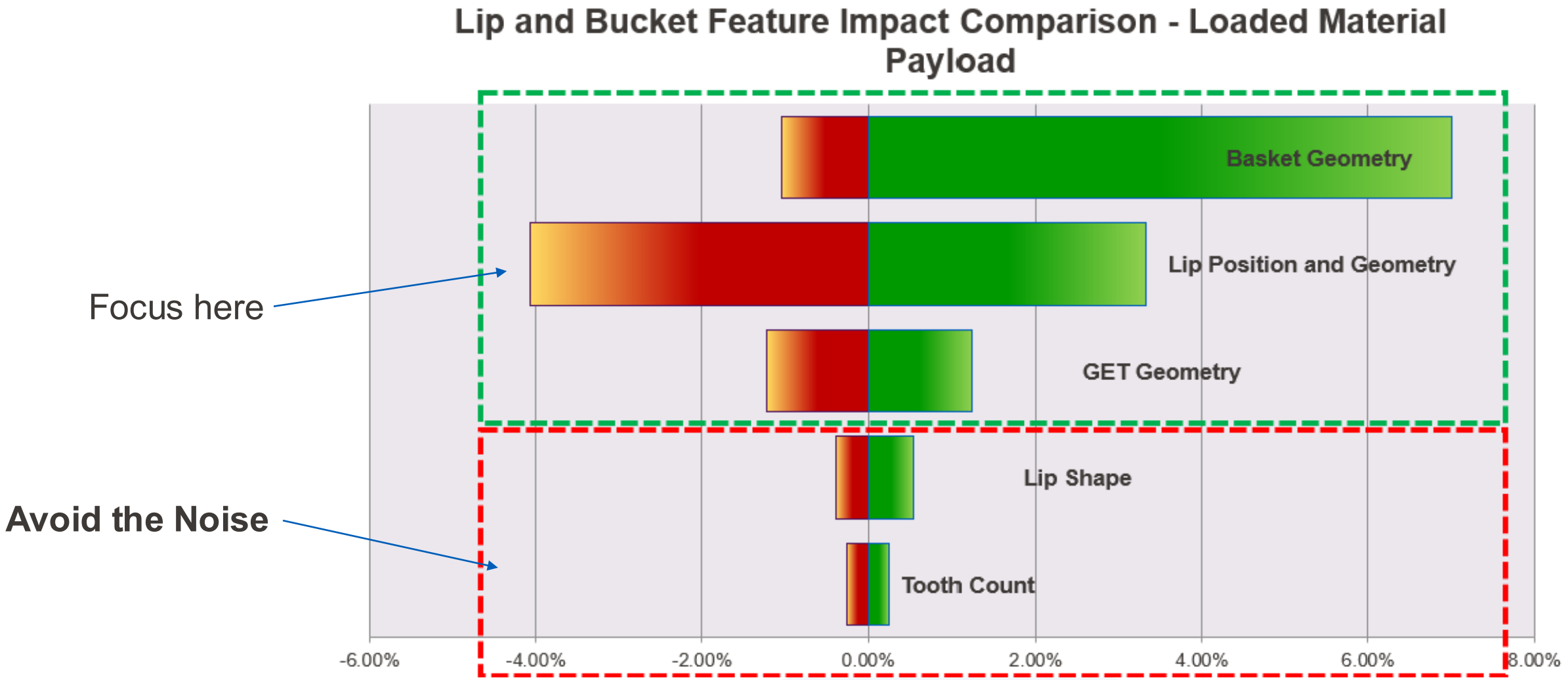
Creating Digital Twins with Discreet Element Modeling

Accurate, prolific and inexpensive digging experimentation





Focus on Features that Create Value



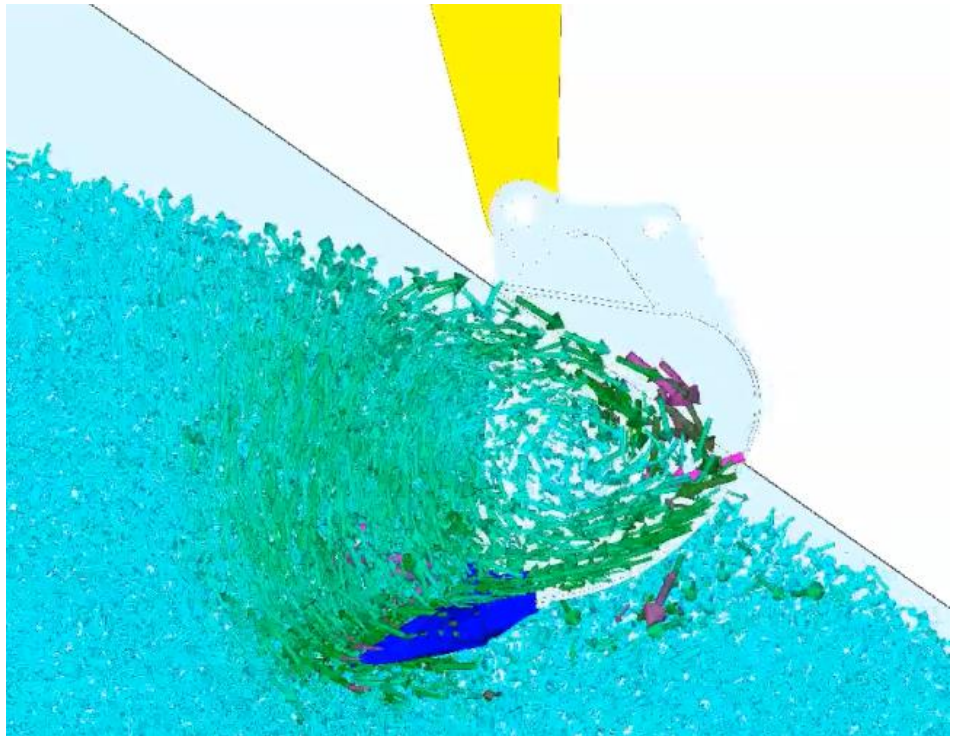
Digital Twin: Full Scale Research

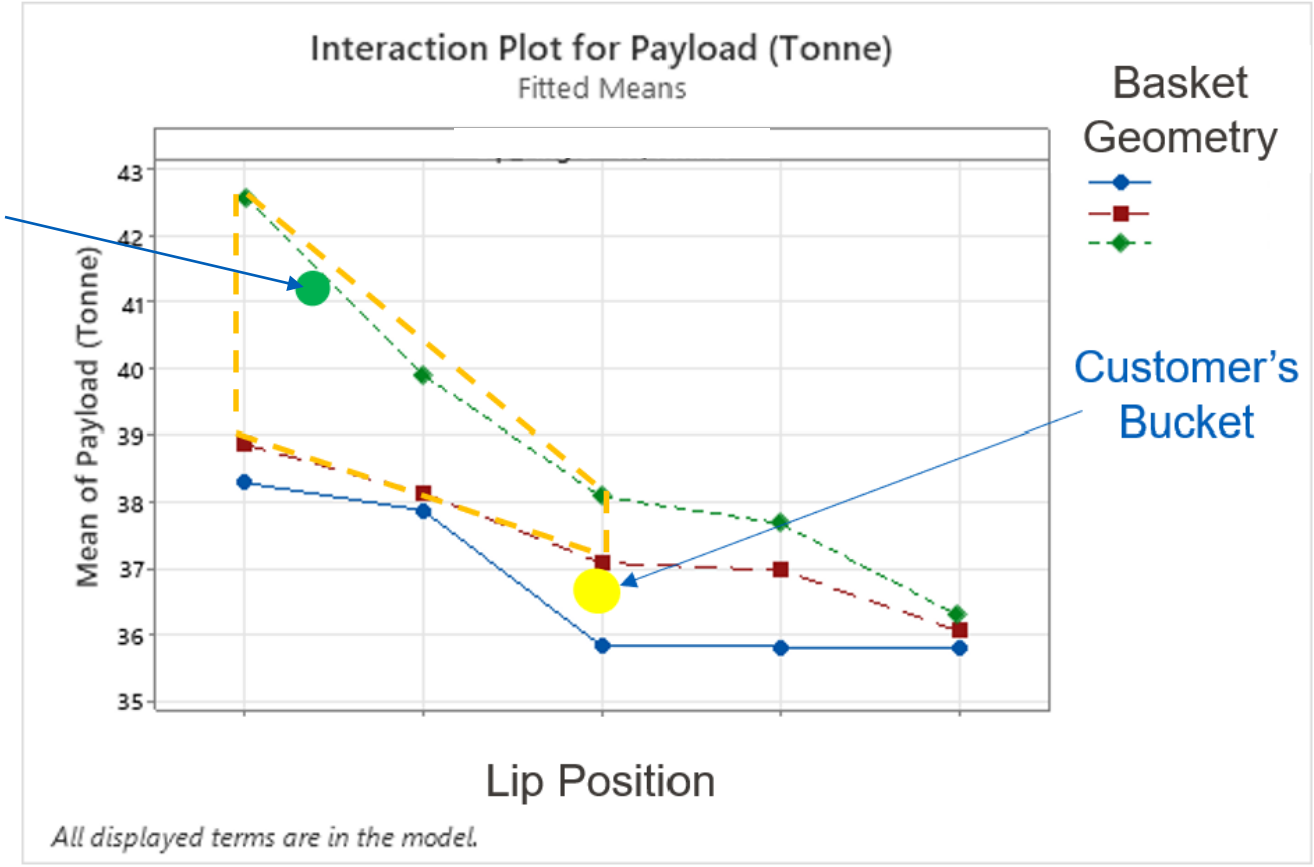
In-House DEM testing

Input parameters:

- Basket geometry
- Lip position

ESCO® Production Master™ Hoe Bucket





Test results:

- *2%-15.5% increase payload in low bench digging
- *3.5% Reduced Excavator CO2e/tonne material moved

*Actual results may vary based on site conditions. Excludes benefits to truck fleet.

Engineered for Performance: Production Master™

Research driven gains:

Proprietary bucket + GET system engineered by ESCO

- Delivered up to 20% additional trucks loaded per 24hr periods (data validated MM & FMS)
  - Up to 17% Fill time reduction
  - Up to 9% increase in Load per pass
- ESCO, Up to 15% less Fuel for every Ton moved
- Reduced GET cost per tons loaded
- Scalable across fleet





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Conclusion – The Future is Connected

Core Values

- **Move less rock**
- **Use less energy**
- **Use water wisely**
- **Create less waste**
- **Boost with digital**

End-to-End Integration: Connect every stage of the mining process from drill and blast to processing through integrated digital solutions across the value chain.
Operational Control: Integrate data sources to deliver real-time visibility and actionable insights that support informed decision-making and optimise performance.
Sustainable Future: Enable the responsible production of critical minerals through technologies that reduce environmental impact and support the energy transition.

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WEIR

Mining technology for a sustainable future