

Why Mining Chemistry Is Being Re-Evaluated

- Ore grades are declining while impurity levels—especially silica—are rising
- Conventional frothers and collectors struggle to maintain recovery and selectivity
- Elevated water recovery drives entrainment and contaminates concentrates
- Greater focus on flotation efficiency and water balance

Recovery and selectivity are no longer just metallurgical challenges—they're operational constraints.



Evaluate the Opportunity.

Start the **Technical Conversation.**

Scan to review our approach and discuss how biosurfactant chemistry could be evaluated within your operation.



[LocusMining.com](https://locusmining.com)

Advancing Mineral Processing with Biosurfactant Chemistry

Exploring new pathways to improved recovery and selectivity



A division of
Locus Fermentation
Solutions

A Modern Approach to Mining Challenges




Locus Mining is the mineral processing division of Locus Fermentation Solutions. We apply proprietary biosurfactant chemistry to modern mining challenges—helping operators evaluate new approaches to improve recovery and selectivity.

Our work focuses on flotation today, with adjacent applications under evaluation.

The Locus Mining Approach

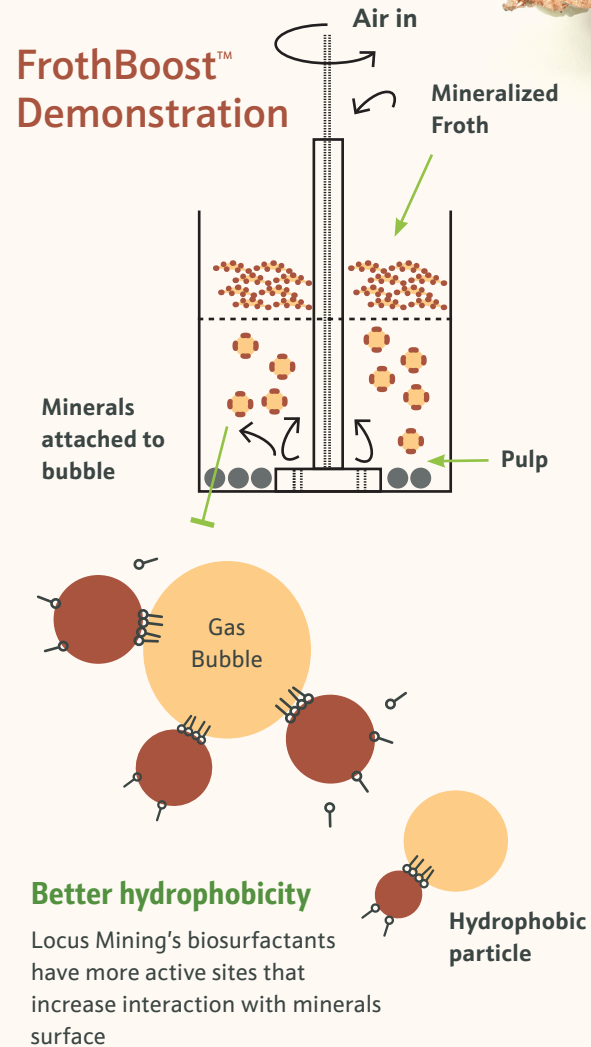
Locus Mining develops glycolipid-based biosurfactants engineered for mineral processing. In laboratory and pilot-scale testing, these molecules have demonstrated improved froth control and enhanced recovery compared to conventional flotation reagents, with reduced water recovery observed specifically in iron ore flotation testing.

Our chemistry is designed to integrate into existing circuits, enabling evaluation without process overhauls.

-  Recovery and selectivity addressed together
-  Reduced water recovery observed in iron ore flotation testing
-  Drop-in compatibility for trials and testing

In Laboratory Testing

- Lowers interfacial tension (IFT)**
Changes the surface wettability for mobility
- Unique mineral adsorption performance**
Better removal of target mineral



What the Data Shows

+8% Recovery Improvement

Observed increase versus conventional frothers in laboratory flotation testing.

+5-Point Recovery Gain

Measured improvement in controlled iron ore flotation evaluations.

Lower Water Recovery

Reduced water recovery observed in iron ore flotation testing under comparable conditions.

Improved Separation Efficiency

Higher selectivity relative to incumbent frother performance.

Results based on laboratory and pilot-scale testing. FrothBoost™ is currently in evaluation and not yet commercially available.



How We Work

An evaluation-first approach designed for real-world mining operations

Locus Mining partners with operators to evaluate biosurfactant chemistry through controlled testing and trial programs. Engagements are structured to fit existing processes and generate measurable data, without operational disruption.

- 1** Understand ore, process conditions, and objectives
- 2** Review lab and pilot data for fit
- 3** Support controlled, low-disruption evaluation
- 4** Share results and define next steps