

De-risked, Permitted Sovereign Boron Supply

5E Advanced Materials

(NASDAQ: FEAM | ASX: 5EA)

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This Presentation includes forward-looking non-GAAP financial measures. These measures may not be comparable to similar measures presented by other companies and should not be viewed as a substitute for measures reported under U.S. GAAP. These measures are commonly used in the mining industry to provide stockholders and potential investors with additional information regarding the Company’s future performance in its mining operations at projected full-run rates. This presentation contains references to future annualized EBITDA, which is a forward-looking non-GAAP financial measure that are detailed in the Company’s Regulation S-K 1300 compliant Preliminary Feasibility Study (the “PFS”). EBITDA is defined as net income before interest expenses, income tax expense, and depreciation. The Company has not provided a reconciliation of future annualized EBITDA to the Company’s future net income, the most comparable financial measure calculated in accordance with GAAP, as such GAAP measure is not available on a forward-looking basis without unreasonable effort. Specifically, the Company could not calculate interest, income taxes, depreciation or the effect of certain corporate level transactions or activities, on a forward-looking basis with any reasonable degree of accuracy, but such items could be significant and have a material impact on the Company’s net income. For more information regarding these forward-looking non-GAAP financial measures, you should read the Company’s PFS included as Exhibit 96.1 to the Company’s Current Report on Form 8-K filed with the SEC on August 7, 2025.

MARKET AND INDUSTRY DATA

This Presentation has been prepared by 5E and includes market data and other statistical information from third-party sources, including independent industry publications, government publications or other published independent sources. Although 5E believes these third-party sources are reliable as of their respective dates for the purposes used herein, neither we nor any of our affiliates, directors, officers, employees, members, partners, shareholders or agents make any representation or warranty with respect to the accuracy or completeness of such information. Although we believe the sources are reliable, we have not independently verified the accuracy or completeness of data from such sources. Some data is also based on 5E’s good faith estimates, which are derived from our review of internal sources as well as the third-party sources described above. Additionally, descriptions herein of market conditions and opportunities are presented for informational purposes only there can be no assurance that such conditions will actually occur or result in positive returns.

CAUTIONARY NOTE REGARDING RESERVES

Unless otherwise indicated, all mineral resource estimates included in this Presentation have been prepared in accordance with and are based on the relevant definitions set forth in, the SEC’s Mining Disclosure Rules and Regulation S-K 1300 (each as defined below). Mining disclosure in the United States was previously required to comply with SEC Industry Guide 7 under the Exchange Act (“SEC Industry Guide 7”). In accordance with the SEC’s Final Rule 13-10570, Modernization of Property Disclosure for Mining Registrant, the SEC has adopted final rules, effective February 25, 2019, to replace SEC Industry Guide 7 with new mining disclosure rules (the “Mining Disclosure Rules”) under sub-part 1300 of Regulation S-K of the Securities Act of 1933, as amended (the “Securities Act”) (“Regulation S-K 1300”). Regulation S-K 1300 replaces the historical property disclosure requirements included in SEC Industry Guide 7. Regulation S-K 1300 uses the Committee for Mineral Reserves International Reporting Standards (“CRIRSCO”) - based classification system for mineral resources and mineral reserves and accordingly, under Regulation S-K 1300, the SEC now recognizes estimates of “Measured Mineral Resources”, “Indicated Mineral Resources” and “Inferred Mineral Resources”, and require SEC-registered mining companies to disclose in their SEC filings specified information concerning their mineral resources, in addition to mineral reserves. In addition, the SEC has amended its definitions of “Proven Mineral Reserves” and “Probable Mineral Reserves” to be substantially similar to international standards. The SEC Mining Disclosure Rules more closely align SEC disclosure requirements and policies for mining properties with current industry and global regulatory practices and standards, including the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, referred to as the “JORC Code”. While the SEC now recognizes “Measured Mineral Resources”, “Indicated Mineral Resources” and “Inferred Mineral Resources” under the SEC Mining Disclosure Rules, investors should not assume that any part or all the mineral deposits in these categories will be converted into a higher category of mineral resources or into mineral reserves. For additional information regarding these various factors, you should carefully review the risk factors and other disclosures in the Company’s filings with the SEC. Additionally, 5E undertakes no obligation to comment on third-party analyses or statements regarding 5E’s actual or expected financial or operating results or its securities.

Boron: The Right Resource, The Right Time

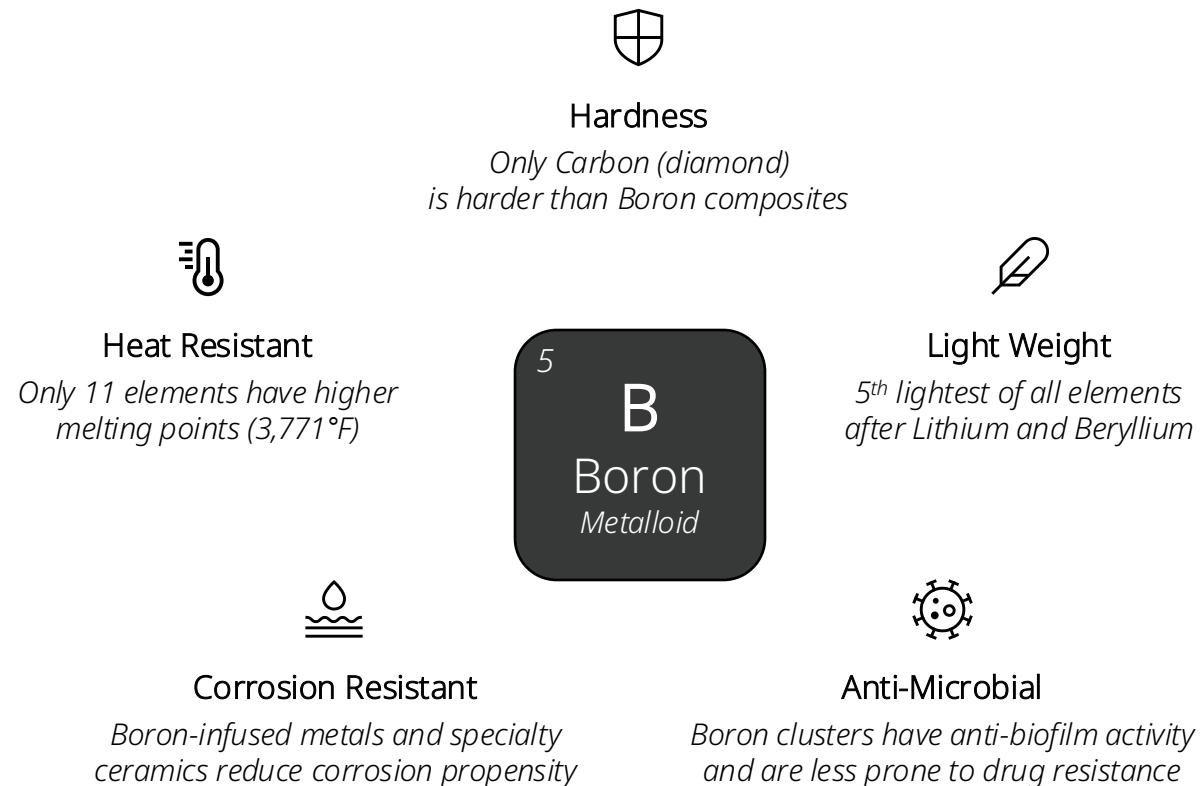


1. Macro tailwind: Boron demand growing 5.5% CAGR; global supply deficit begins 2025.
2. Strategic position: 5E controls the largest U.S. colemanite deposit — fully permitted, critical infrastructure in place.
3. De-risked execution: Operational pilot facility, 14 qualified customers, simplified in-situ process.
4. Robust economics: \$725M NPV, 19% IRR, 56%EBITDA margins, scalable from Phase 1 (2028).
5. USGS Critical Minerals listing (Fall 2025), EXIM financing approval, bankable offtake agreements, and feasibility study advancing toward FID, supported by strong customer pull with 14 qualified customers validating demand.

Only pure-play boron stock in the U.S. — scarce asset, national security relevance, near-term rerating triggers.

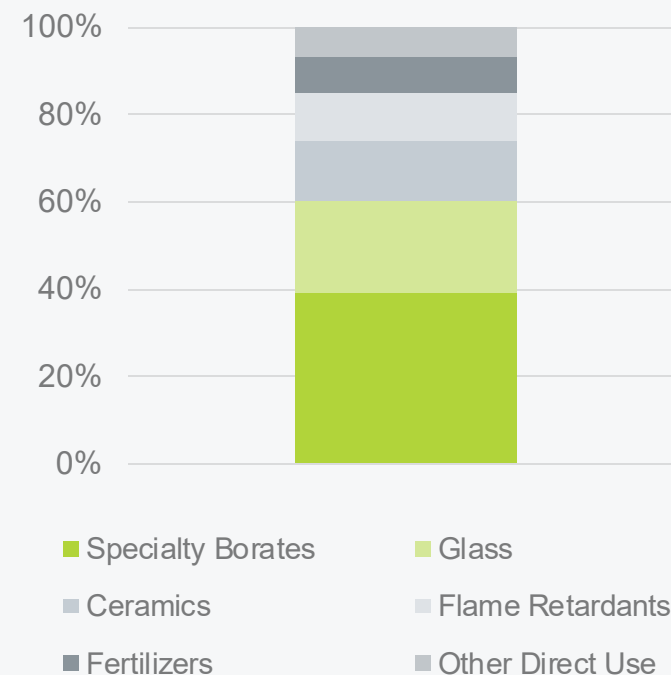
¹ Regulation S-K 1300 Pre-feasibility Study Technical Report Summary with a report date of August 6, 2025.

Boron: Superior Physical Properties



Current Boric Acid Usage¹

Wide Range of Traditional Applications, with Limited Substitutability



¹ Kline Preliminary Market Study

Boron Market Segments

¹ Chronic land degradation: UN offers stark warnings and practical remedies in Global Land Outlook

² Global Market Insights, Boron Market – Industry Analysis & Forecast (2024-2030)

³ Kline Preliminary Market Study

Energy Transition and Permanent Magnets

- Critical material used in a wide range of decarbonization technologies (wind, solar, and nuclear)
- Key driver of demand in magnets needed for electric motor permanents

Traditional Applications

Historical uses include:

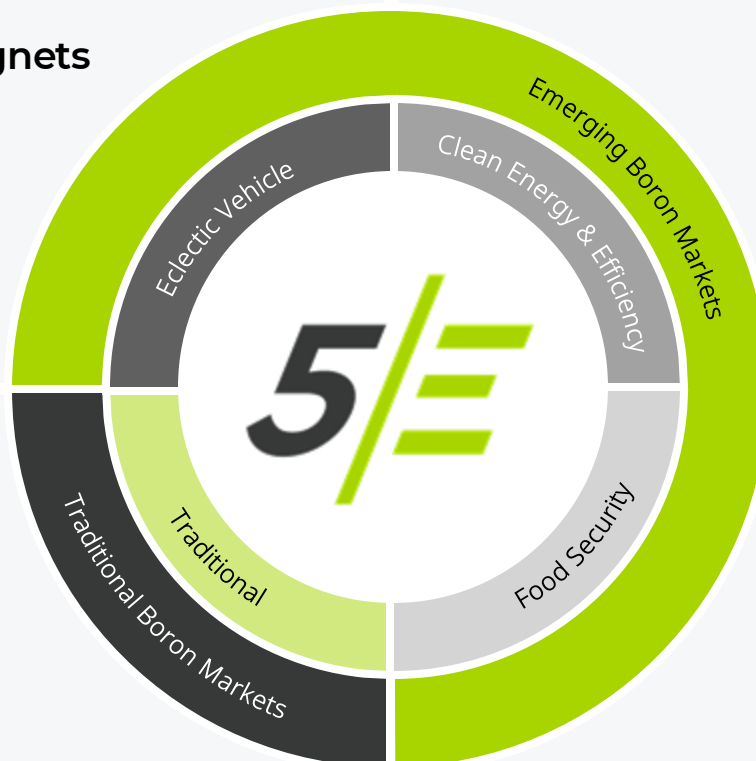
- Glass (borosilicate glass, fiberglass composites)
- Ceramics
- Cleaning agents

National Security Applications

- Armor and Ballistics, Neutron Absorbers in nuclear defense, Missile and Rocket Propellants, Electronics and Sensors
- Advanced Alloys and Composites, and Chemical and Biological Warfare Protection

Food Security

- Up to 40 % of Earth's land is degraded, threatens roughly half of global GDP (US\$44 trillion)¹
- Boron is an essential micronutrient for crop health and to increase crop yields
- Boron based fertilizers are widely used commercially



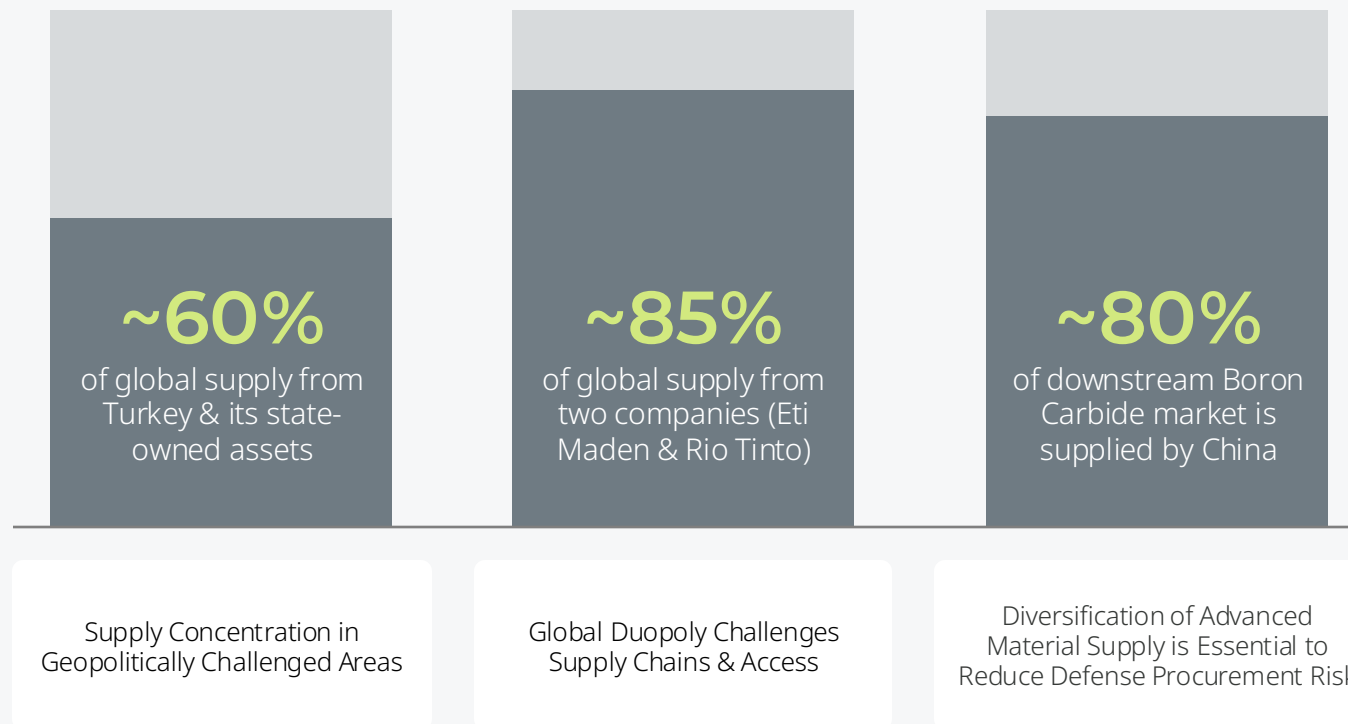
\$1.25b global BA market 2024²

Global Boric Acid Demand CAGR of **5.5%**²

697K tons of new demand expected by **2033**³

Boron Supply Duopoly

Global Supply Dynamics

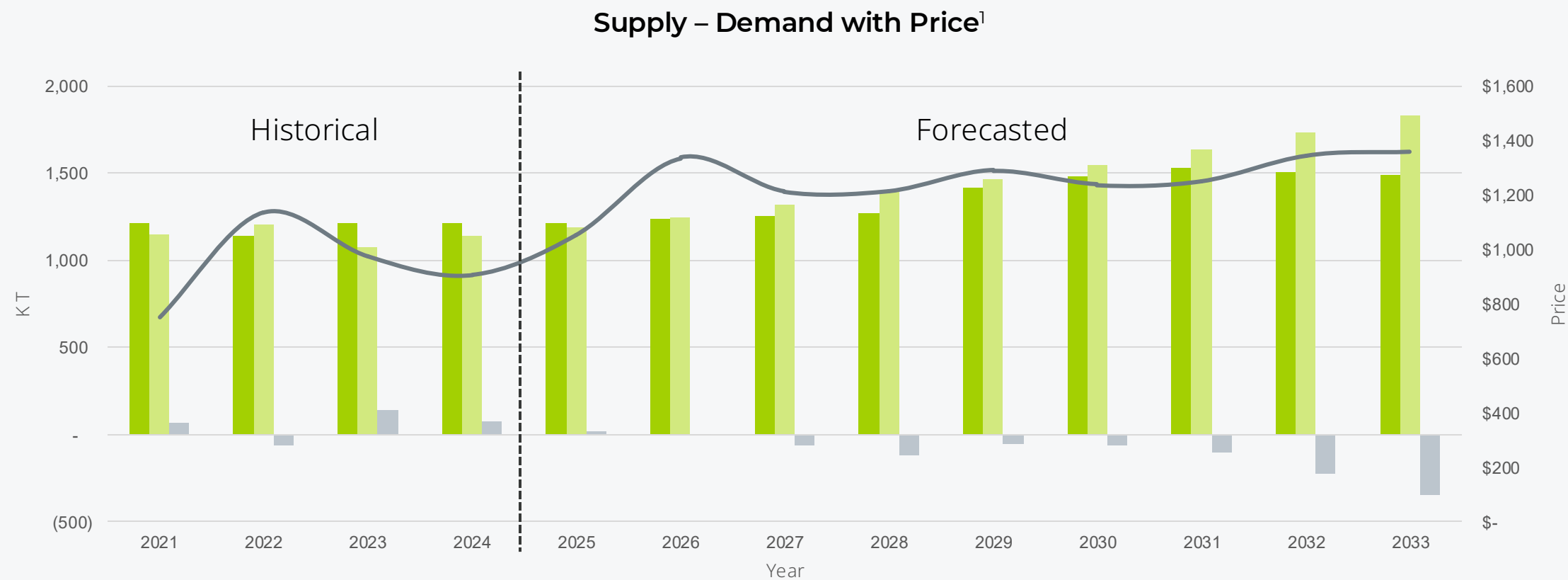


Key Highlights

- The United States is exposed to a single point of failure
- Major U.S. supplier downgraded the reserve in 2018
- Five other deposits of boron globally, two permitted and scheduled to come online in 2028 and 2029

The Global Supply Chain Demands a New, Stable Source to Deliver Critical BORON

2025 Signals Beginning of Supply Deficit



¹ Kline Preliminary Market Study

Supply Demand Surplus / (Deficit) Price

Boron's Critical Mineral Position



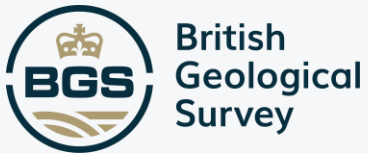
Designation of Boron as **“High” Critical Status** in their Critical Raw Materials for Strategic Technologies and Sectors in the EU.

2020



As of 2024, **Boron** stands as a **Critical Material of Interest** by the U.S. Defense Logistics Agency.

2024



Designated Boron as Critical as part of the **2024 UK Critical Assessment**.

2024



As of 2023, the DOE list required a score of 22 to be on the list, **Boron** achieved a score of 21.

2024



Major Catalyst: *The U.S. Geological Survey is expected to update their list in the Fall of 2025.*

Building the Next Domestic Boron Supply Hub

- Largest known Domestic (colemanite) boron deposit
- Initial mine life of 39.5 years (41% of resource base)
- Commercial production fully permitted
- Pilot Plant Fully Operational - derisked
- Simplified by-product strategy
- LOI received from US EXIM Bank
- Immediate focus on bankable offtake agreements

CALIFORNIA

NEVADA

FORT CADY
INTEGRATED BORON
FACILITY

PORT OF
LOS ANGELES

PORT OF
LONG BEACH

The Team to Deliver

Leadership Team



Paul Weibel
CHIEF EXECUTIVE
OFFICER
BSc, CPA



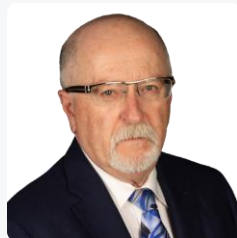
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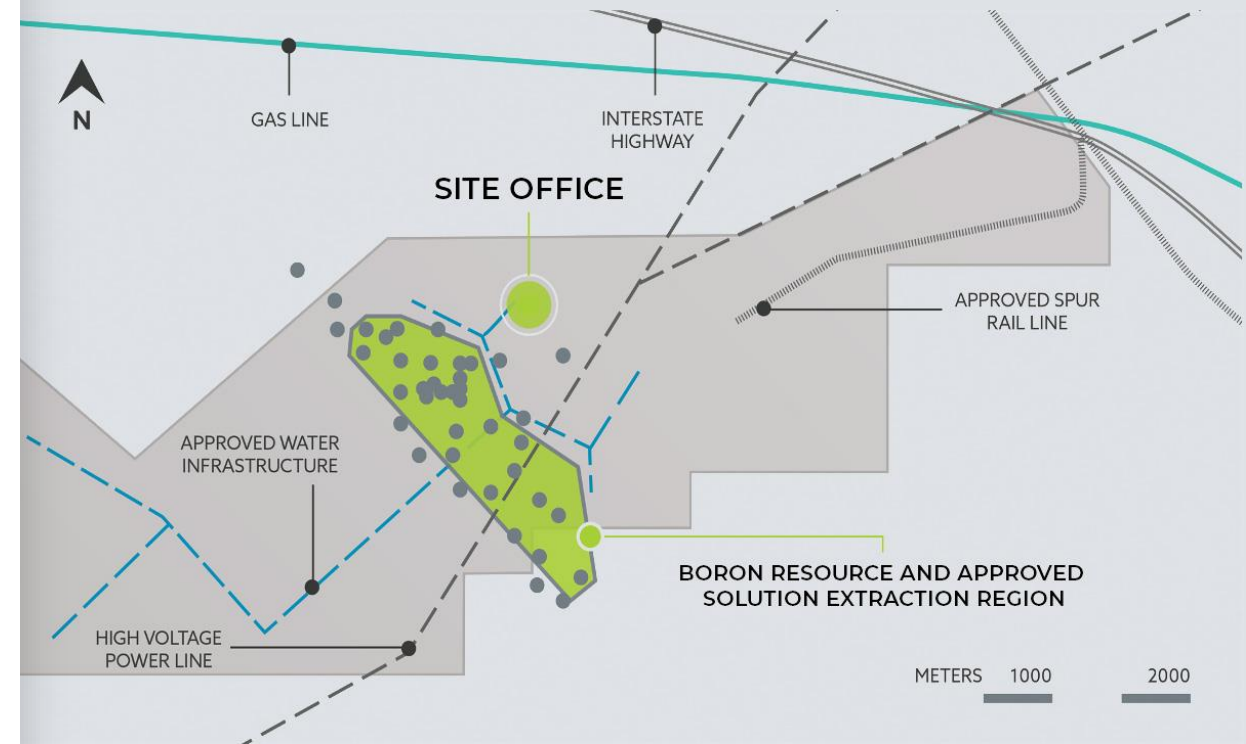


Curtis Hébert
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Secured Mineral Tenure with Critical Infrastructure

- Ownership of six fully controlled property parcels ensures long-term security of tenure
- Federal, State, and Local Permitted Operations
- Designated as Critical Infrastructure by U.S. DHS – A key barrier to entry and recognition of national strategic importance
- High-Quality Reserve; Rare colemanite deposit
- Natural gas transmission lines
- Power corridor
- BNSF Rail and Interstate 40



In-Situ Mining: A Cleaner, Stronger Advantage

In-Situ Mining¹

Streamlined Production and Processing



Low Land Disturbance



Efficient Processing



No Tailings Dam Storage



Minimal Excavating Equipment



Borates in solution



Drying & bagging

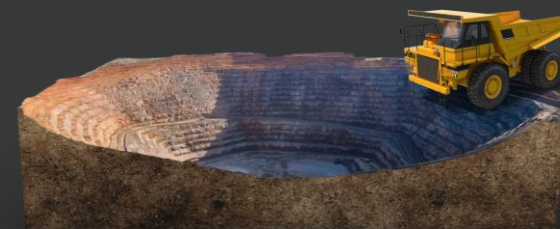


Refined product



Customer

Hard Rock Mining



Risk of Pit Collapse



Equipment & Labor Intensive



Significant Surface Area Needed



Tailings Storage



Borates are mined



Drying & bagging



Transported to China



Boric acid into solution



Into process plant



Refined product

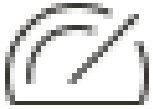


Shipment to US



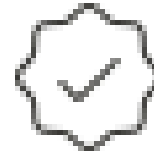
Customer

Small-Scale Facility – What We Have Accomplished



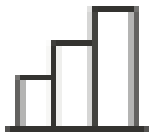
1. Process Optimized:

- Wellfield and process optimization
- Developed power solutions
- Simplified Process
- Value-added byproducts



2. Strategic Execution

- Production quality achieved
- Deliver product to key customers
- Test higher production rate wellfield completions



3. Engineering Advanced:

- Completed Pre-feasibility report
- +/-25% CAPEX and OPEX estimates¹
- Foundation for debt financing



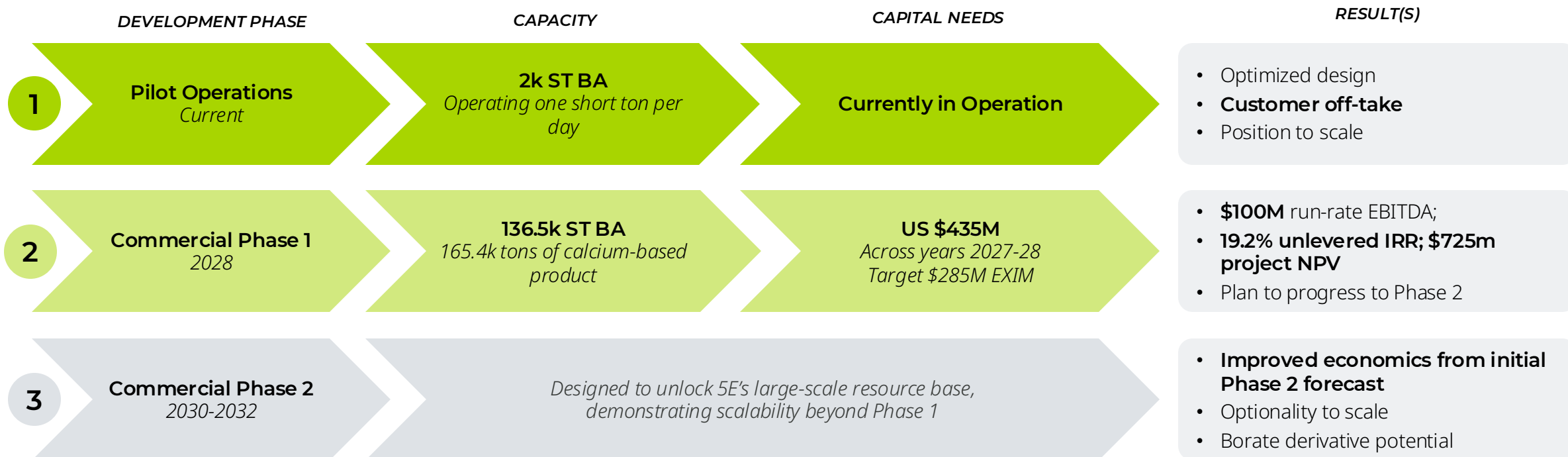
4. Operational Success

- Completed customer qualification
- Negotiating offtake agreements
- Positioned for bankable financing backed by strong customer demand

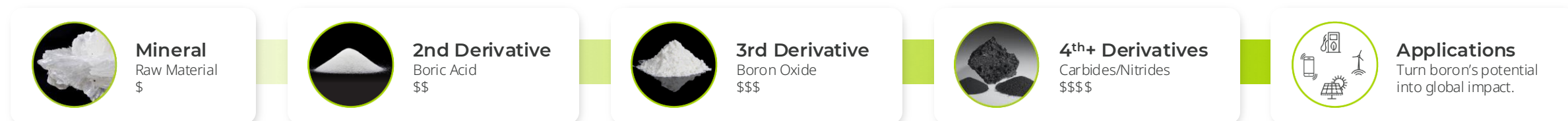
Pilot operations prove the process works — on time, on spec, and ready to scale.

Pathway to Commercial Growth

¹ Commercial Phase 1, Commercial Phase 2, Capital Needs, and EBITDA are forward-looking non-GAAP financial measures. For more information, see “Non-GAAP Financial Measures” above.
² Capital and EBITDA are referenced from Regulation S-K 1300 Pre-feasibility Study Technical Report Summary with a report date of August 6, 2025 (using 2% cut-off grade) prepared by Qualified Persons. Figures presented reflect total estimated proven and probable reserves.



Values in USD-M



Pathway To Final Investment Decision (FID)

Executing optimization, securing finance, and finalizing engineering to enable FID and construction launch.

Project Optimization (2025/2026):

- Complete pre-FEED (FEL-2) engineering
- Optimize commercial byproduct arrangements, including off-take
- Wellfield optimization study
- Improved CAPEX and OPEX estimates for project scaling
- Deliver pre-feasibility study (PFS)

Project Finance:

- Engineering Multiplier Loan ~ \$10M
- Optimize commercial byproduct arrangements with offtakes in place, demonstrating incremental value and market validation
- EXIM diligence for loan guarantee of \$285M
- Potential for customer finance to fund required working capital ~ pre-pay

Detailed Engineering:

- Complete FEED (FEL-3) engineering
- EPC construction contract
- Supply chain agreements
- EXIM loan commitment and non-dilutive financing
- FID

Thank you.

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