

## **5E Advanced Materials Successful R&D Produces Breakthrough Meta Boric Acid Product (80% B<sub>2</sub>O<sub>3</sub> Content), Opening High-Value Market Opportunities**

*First Advanced Material Derivative Developed Enabling Portfolio of Multiple  
Products*

*Provisional Patent Application Filed with USPTO, Securing Early Competitive  
Edge in Next-Generation Materials*

**HESPERIA, Calif. / ACCESS Newswire / March 12, 2026 /** 5E Advanced Materials, Inc. (“5E” or the “Company”) (Nasdaq:FEAM) (ASX:5EA), a company focused on becoming a vertically integrated global leader and supplier of refined borates and advanced boron derivative materials, today announced it has produced a stable meta boric acid product, achieving approximately 80% B<sub>2</sub>O<sub>3</sub> equivalent content (“Meta Boric Acid”) and has filed a provisional patent application with the U.S. Patent and Trademark Office covering the Company’s production process. This breakthrough expands the Company’s portfolio and represents a potential higher-margin boron derivative opportunity within the global boron materials market.

### **Key Highlights**

- Meta Boric Acid is a higher-concentration boric acid advanced material with ~80% B<sub>2</sub>O<sub>3</sub> content, sitting between traditional boric acid (~56% B<sub>2</sub>O<sub>3</sub> content) and boron oxide (~99% B<sub>2</sub>O<sub>3</sub>).
- Higher boron concentration enhances unit economics with more B<sub>2</sub>O<sub>3</sub> per unit delivered, while supporting robust pricing and higher margins.
- Meta Boric Acid provides an option for potential customers seeking higher boron content products.
- Provisional patent application filed to protect the Company’s intellectual property and enable additional commercialization pathways.
- Larger-scale trials and additional customer samples for testing and qualification are ongoing as the Company advances commercialization discussions with prospective customers.
- This milestone supports 5E’s strategy to pursue higher-value boron advanced materials across the supply chain, expanding the Company’s previously announced [ferroboron initiative](#).

Successful research and development have yielded a positive result with a product that has higher boron content than traditional boric acid. Potential applications include specialty glass, ceramics, and other high-performance industrial materials requiring higher boron concentrations. Meta Boric Acid is designed to bridge a concentration gap between boric acid and boron oxide by increasing boron content. Boric acid (H<sub>3</sub>BO<sub>3</sub>) typically contains approximately 56% B<sub>2</sub>O<sub>3</sub>, while boron oxide typically contains approximately 99% B<sub>2</sub>O<sub>3</sub>. The market prices of the two products are different, with boron oxide being the higher priced product where manufacturers are compensated for providing a product with higher boron concentrations of B<sub>2</sub>O<sub>3</sub>. Meta Boric Acid provides a compelling value



proposition by delivering more boron per ton shipped to prospective boric acid customers desiring higher boron content in their manufacturing process. Management believes this product could command a premium relative to traditional boric acid, while also reducing freight and handling costs per unit of B<sub>2</sub>O<sub>3</sub> delivered, supporting improved margin potential.

“Recently 5E invested in research and development to advance higher-value derivatives across the boron supply chain. This represents the second product developed from the Company’s boron resource, expanding its product portfolio,” said Paul Weibel, Chief Executive Officer. “By producing Meta Boric Acid at 80% B<sub>2</sub>O<sub>3</sub> content, we believe we can offer customers a more efficient boron feedstock that supports higher margins versus traditional boric acid. We have filed a provisional patent application to help protect our production approach. Our next immediate steps are to market this product to potential customers and provide additional samples for customer testing and qualification that demonstrate value-added benefits. The results of our R&D investment demonstrate our team’s capabilities to further move up the value chain and represent the next step in realizing our vision of becoming the next boron advanced material company in the United States.”

### **About 5E Advanced Materials, Inc.**

5E Advanced Materials, Inc. (Nasdaq: FEAM) (ASX:5EA) is focused on becoming a vertically integrated global leader and supplier of refined borates and advanced boron materials, complemented by calcium-based co-products, and potentially other by-products such as lithium carbonate. The Company’s mission is to become a supplier of these critical materials to industries addressing global decarbonization, energy independence, food, national security, and the defense sector. The Company believes factors such as government regulation and incentives focused on domestic manufacturing and supply chains and capital investments across industries will drive demand for end-use applications like solar and wind energy infrastructure, neodymium-ferro-boron magnets, defense applications, lithium-ion batteries, and other critical material applications. The business is based on the Company’s large domestic boron resource, which is located in Southern California and designated as Critical Infrastructure by the U.S. Department of Homeland Security, and boron was included on the U.S. Government’s 2025 List of Critical Minerals.

### **Forward Looking Statements**

Statements in this press release may contain “forward-looking statements” that are subject to substantial risks and uncertainties. Forward-looking statements contained in this press release may be identified by the use of words such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions, and include, but are not limited to the timing and outcome of customer sampling and qualification efforts; the ability to produce Meta Boric Acid in the quantities and specifications required for commercialization; the expected economics of the process, including pricing, transportation savings and margins; the risk that we may not be able to enter into long-term Meta Boric Acid sales agreements; the risk that the provisional patent application may not result in an issued patent and that the Company may be unable to protect or enforce its intellectual property; the market demand for boron products and derivatives; and the Company’s ability to access and secure any financing. Any forward-looking statements are based on 5E’s current expectations, forecasts, and assumptions and are subject to a number of risks and uncertainties that could cause actual outcomes and results to differ materially.



For a discussion of other risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in 5E's most recent Annual Report on Form 10-K and its other reports filed with the SEC. Forward-looking statements contained in this announcement are based on information available to 5E as of the date hereof and are made only as of the date of this release. 5E undertakes no obligation to update such information except as required under applicable law. These forward-looking statements should not be relied upon as representing 5E's views as of any date subsequent to the date of this press release. In light of the foregoing, investors are urged not to rely on any forward-looking statement in reaching any conclusion or making any investment decision about any securities of 5E.

**For further information contact:**

**Investor Relations**

Brett Maas  
Hayden IR, LLC  
[FEAM@haydenir.com](mailto:FEAM@haydenir.com)  
Ph: +1 (480) 861-2425

**Media Relations**

Paola Ashton  
PRA Communications  
[team@pracommunications.com](mailto:team@pracommunications.com)  
Ph: +1 (604) 681-1407