

# **Corporate Presentation**

Enabling Global Decarbonization with **BORON**+

January 2022

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This Presentation contains forward-looking statements within the meaning of or as described in securities legislation in the United States, Australia and other jurisdictions. Forward-looking statements generally are identified by the words "believe," "project," "estimate," "intend," "budget," "target", "aim", "strategy," "estimate", "elan," "quidance," "outlook," "intend", "may," "should," "could," "will," "would," "will be," " projects: projections of market demand and prices: statements about the timing and amount of resource declarations and current or planned operations; strategy; value: returns; capital allocation and investment; expectations regarding permitting; costs and expenses; and statements about the timing and ability to complete scoping studies and feasibility studies. 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Forward-looking statements involve known and unknown risks, uncertainties and other important risk factors many of which are beyond the control of the 5E Group, and which may cause actual timing of events, results, performance or achievements and other factors to be materially different from the future timing of events, results, performance or achievements expressed or implied by the forward-looking statements., which include but are not limited to the following risk factors: 5E (our, we, the Company) future performance is difficult to evaluate due to limited operating history in the borates industry and no sustained revenue from our properties, which may negatively impact our ability to achieve business objectives; Failure to obtain additional financing and maintain sufficient funds to continue ongoing operations could result 5E business being delayed; 5E is an exploration stage company with no known reserves, estimates of resources and mineralized material are inherently uncertain and subject to change, the volume and grade of ore actually recovered may vary from our estimates; We have no history of mineral production and we may not be able to successfully reach our downstream processing ambitions; estimates relating to the development of the Project and mine plan are uncertain and 5E may incur higher costs and lower economic returns than estimated; 5E's long-term success will depend ultimately on its ability to a achieve and maintain profitability and to develop positive cash flow from its operating activities; uncertain global economic conditions could have a material adverse impact on our business, financial condition, results of operations or prospects; The 5E Group invested and will continue to invest significant amounts of capital in the Project on development activities, which involve many uncertainties and operating risks that could prevent it from realizing properties and related water rights is a complex process and we may suffer a material adverse effect in the event the Fort Cadv property or other properties that the Company may acquire are determined to have title deficiencies; 5E leases a portion of the Fort Cady site from a third party under a mineral lease agreement that expires in 2022 and while the parties are actively negotiating terms of a new mineral lease, there can be no assurance that the parties will be able to reach agreement on the terms of a new lease or that the terms of a new lease, if entered into, will not be materially less favorable to the Company than the terms of the current mineral lease; the mining industry and market fluctuations in the process of borates and other minerals could adversely affect our business; a shortage of equipment or disruption in our supply chain could adversely affect our ability to operate our business: we are required to obtain and maintain governmental permits in order to conduct development and mining operations, a process which is often costly and time-consuming; operations are predominantly located in a single geographic region, making us vulnerable to the risks associated with operating a single geographic region concentrating our capital investment in the State of California increases our exposure to risk; the company may acquire additional businesses or assets, form joint ventures or make investments in other companies in the future that may be unsuccessful and may harm our operating results and prospects. Any forward-looking statements, projections and estimates are given only as of the date of this Presentation and actual events, results, performance and achievements could vary significantly from the forward-looking statements, projections and estimates are given only as of the date of this Presentation and actual events. statements. Except as required by law, the 5E Group disclaims any intent or obligation to correct, update or revise such forward-looking statements, whether as a result of new information, future events or otherwise. Additionally, the 5E Group, except as required by applicable law, undertakes no obligation to comment on analyses, expectations or statements made by third parties in respect of the 5E Group, its financial or operating results or its securities.

#### MARKET AND INDUSTRY DATA

Certain market and industry data presented throughout this Presentation was obtained from third-party sources, industry reports and publications, websites and other publicly available information, as well as industry and other data prepared by or on behalf of the 5E Group. Management estimates regarding the 5E Group's position, share and industry size are derived from publicly available information and its internal research, and are based on a number of key assumptions made upon reviewing such data and the 5E Group's howledge of such industry and markets, which it believes to be reasonable. While the 5E Group believes the industry, market and competitive position data included in this Presentation is reliable and is based on reasonable assumptions, such data is necessarily subject to a high degree of uncertainty and risk and is based on the factors could cause results to differ materially from those expressed in the estimates included in this Presentation. Neither the 5E Group to third parties, industry reports and publications or other publicly available information.

#### JORC CODE AND REGULATION S-K 1300 MINERAL RESOURCES

In this Presentation, some references to estimated mineral resources are compliant with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code") and other references to estimated mineral resources are compliant with the avest SC mining property disclosure requirements contained in Subpart 1300 of Regulation S-K 1300", there are compliant with the rew SEC mining property disclosure requirements contained in Subpart 1300 of Regulation S-K 1300", it may not comply with the relevant guidelines in other countries. 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". Regulation S-K 1300 replaces the historical property disclosure rules (the "Mining Disclosure rules (the "Mining Disclosure Rules") under Regulation S-K 1300. The SEC Industry Guide 7". Regulation S-K 1300 replaces the historical property disclosure Rules adopted final rules, effective February 25, 2019, to replace SEC Industry Guide 7". Regulation S-K 1300 replaces the historical property disclosure Rules "under Regulation S-K 1300", the SEC Industry Guide 7". Regulation S-K 1300 replaces the historical property disclosure Rules "under Regulation S-K 1300", the SEC Industry Guide 7". Regulation S-K 1300 replaces the historical property disclosure rules (the "Mining Disclosure Rules") under Regulation S-K 1300 replaces the historical property disclosure requirements and resources, and require Sec. Rules "addition S-K 1300", the SEC Rules the second interal resources, in addition to mineral resources, in addition to mineral resources, in addition to mineral resources, in addition, the SEC Rules the second interal resources, and requires the second interal rules, registred mineral resources, in addition, t

#### COMPETENT PERSON STATEMENT (JORC) and TECHNICAL REPORT SUMMARY (REGULATION S-K 1300)

The information in this presentation that relates to exploration targets, exploration results and mineral resources reported under the JORC Code is based on information prepared by Mr Louis Fourie, P.Geo of Terra Modelling Services. Refer to the announcement made by American Pacific Borates Limited dated 3 December 2018 for full details of the JORC Compliant Resource Estimate and Reserve for the Ford Cady Project. The 5E Group confirms that it is not aware of any new information or data that materially affects the Resource Estimate and Reserve and that all material assumptions and technical parameters underpinning the Resource Estimate and Reserve continue to apply and have not materially affects the Resource estimates diverse for the Ford Cady Project. The 5E Group to prepare an independent technical report summary was to support the disclosure of Mineral Resource estimates for the Project. The purpose of the technical report summary was to support the disclosure cestimates and Reserve and the Resource estimates and Reserve estimates for the Project. The purpose of the technical report summary was prepared in accordance with the disclosure of Mineral Resource estimates for the Project. The Summary was prepared in accordance with Regulation S-K 1300. The summary was prepared in accordance with Regulation S-K. The Mineral Resource estimates reported in compliance with Regulation S-K. The Mineral Resource estimates reported in compliance with Regulation S-K. The Mineral Resource estimates reported in compliance with Regulation S-K. The Mineral Resource estimates reported in compliance with Regulation S-K. The Mineral Resource estimates reported in compliance with Regulation S-K. The Mineral Resource estimates reported in compliance with Regulation S-K. The Mineral Resource estimates reported in compliance with Regulation S-K. The Mineral Resource estimates reported in compliance with Regulation S-K. The Mineral Resource estimates reported in compliance with Regulation S-K. The Mineral Resource estimates reported

### **5E Sitting at the Crossroads of Major Emerging Themes**





# **Building a Global Leader in BORON<sup>+</sup> Advanced Materials**





# **5E STRATEGIC VISION**

Become a vertically integrated global leader in BORON<sup>+</sup> advanced materials with a focus on enabling decarbonization



### **Our Plan**

Build a vertically integrated advanced materials business, underpinned by a low cost and secure input supply, downstream processing capabilities and blue chip customer partnerships

### **Our Impact**

Enable global decarbonization and the push for net zero by developing innovative BORON<sup>+</sup> applications, and providing a secure source of BORON<sup>+</sup> advanced materials to global supply chains

### We are in the Right Place, at the Right Time, with the Right Asset

# **BORON<sup>+</sup> Coming Into Focus; 5E Positioned to Become an Advanced Materials Leader**



#### Why BORON<sup>+</sup>



**Critical Material, Essential to Everyday Life** 

Advantaged elemental properties; essential across a wide range of applications with limited substitution



#### **Enabler of Future ESG-centric Industries**

Powering industries of the future with high end use applications including batteries, EVs and renewable energy infrastructure



#### Scarce Resource & Duopolistic Supply

85% of global supply controlled by two companies; downstream supply concentrated in China; governments taking notice

#### **Accelerating Demand Growth**

Traditional and decarbonization-focused applications driving 10x consumption growth by 2050E creating undersupply scenario<sup>(1)</sup>

### Relatively Unknown, Next Energy Material That Deserves Attention

#### Why 5E Advanced Materials



#### **World Class Resource and Asset**

Access to a rare, low cost resource; advantaged U.S. location; substantially permitted with infrastructure in place



#### **Vertically Integrated Model**

Differentiated model with control over inputs, intellectual property and processes, and downstream partnerships



#### **Foundations In Place & Clear Vision**

Strong momentum into U.S. listing with milestones completed; clear path to building a BORON<sup>+</sup> advanced materials business



#### Leadership Team to Deliver

Track record of building advanced material powerhouses; capable oversight and strategic support in place

#### Unique Platform and Opportunity at Attractive Valuation



# **BORON**+

# Why BORON+

## Superior Physical Properties; Wide Application Set and Essential to Everyday Life



	Superior Physical Properties				Current Usage
	2	Hardness	Only Carbon (diamond) is harder than Boron composites		<b>20%</b> Other (Clean Energy, Nuclear,
5 B Boron Metalloid	Æ	Light Weight	5 <sup>th</sup> lightest of all elements after Lithium and Beryllium	_	Defense, Pharma) <b>3%</b> Detergents <b>12%</b> Ceramics
		Heat Resistant	Only 11 elements have higher melting points (3,771°F)		<b>13%</b> Micronutrient
		Anti- Microbial	Boron clusters have anti- biofilm activity and are less prone to drug resistance		<b>52%</b> Glass
		Corrosion Resistant	Boron-infused metals and specialty ceramics reduce corrosion propensity		(Borosilicate Glass, Fiberglass Composites) <b>Wide Range of</b>

Wide Range of Traditional Applications, with Limited Substitutability

## **Usage and Value in Use Shifting Towards Future Facing Applications**





Images courtesy of Pixabay.

# **BORON<sup>+</sup> a Critical Building Block in Enabling Decarbonization & Security**



3.3% CAGR Growth in Global Military Spending (2000-2020)

~\$2.0 Trillion Global Spending on Defense (2020)

# **Electric Vehicles**

~30% CAGR Global Electric Vehicle Stock Growth (2020-2030)

⇒hl

~145m Global Electric Vehicle Stock by 2030

# **Green Energy**

5.8% CAGR Global Installed Wind & Solar Capacity (2019-2050)

~\$55 Trillion Global "Green" Energy Infrastructure Investment (2016-2050)1

## **BORON<sup>+</sup>** the "Enabler Mineral"



Boron Magnets for Drivetrains

High-Strength Boron-Infused Steel



Borosilicate Glass & Coatings Light-Weight Boron fiberglass



**Food Security** 

+1.9 Billion

Increase in Global

Population by 2050

>40%

Lands Experiencing Severe

Yield Reductions by 2050

Boron Micronutrients Super Fertilizers



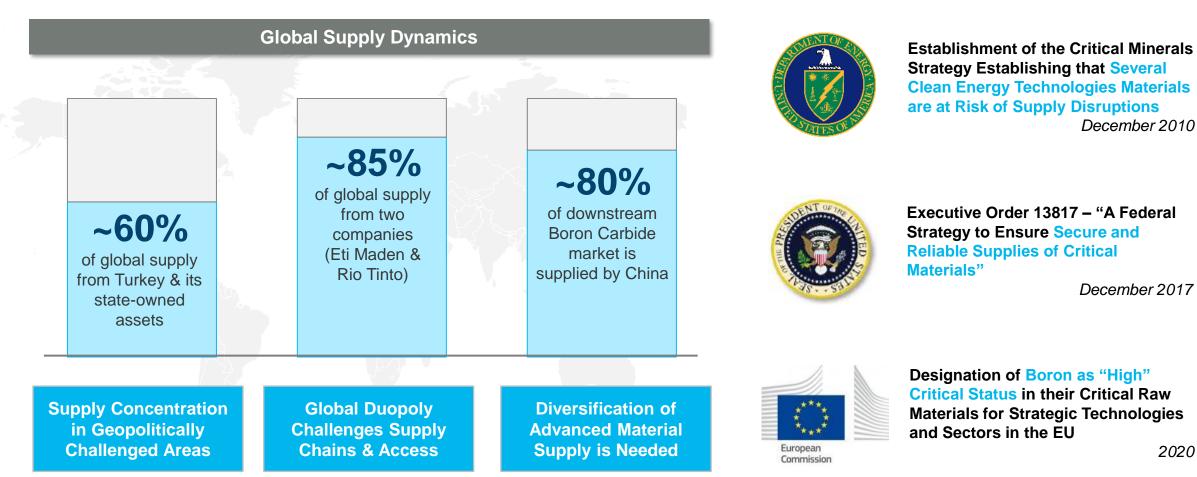
Boron-Infused Tank Armor Plating Boron Rods for Nuclear Reactors

Source: EIA, IEA, United Nations, and PGFP. Images courtesy of Pixabay.

Reflects cumulative global renewable, electrification and infrastructure, and energy efficiency investment under the International Renewable Energy Agency's Planned Energy Scenario.

# **Global Supply Duopoly and Downstream Concentration; Governments Taking Notice**





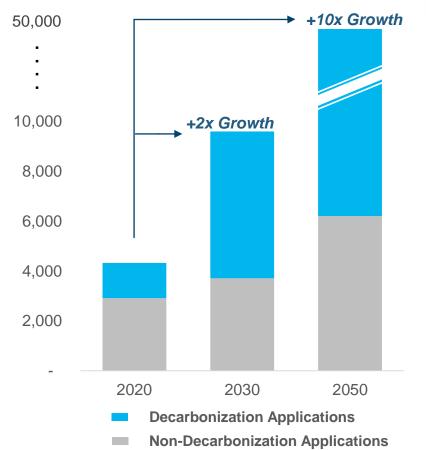
#### The Global Supply Chain Demands a New, Stable Source to Deliver Critical BORON<sup>+</sup> Advanced Materials

# **Confluence of Explosive Demand Growth and Growing Supply Shortfall**



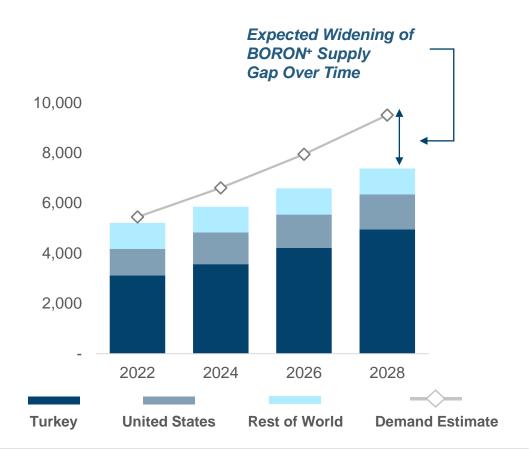
#### Boron Demand Growth<sup>(1)</sup>

(k tonnes; boric acid equivalent)



#### Explosive Demand Growth Driven by Key Decarbonization Sectors

Supply / Demand Imbalance<sup>(1)</sup> (k tonnes; boric acid equivalent)



#### Continued Supply Pressures Bringing the BORON<sup>+</sup> Supply Gap into Focus

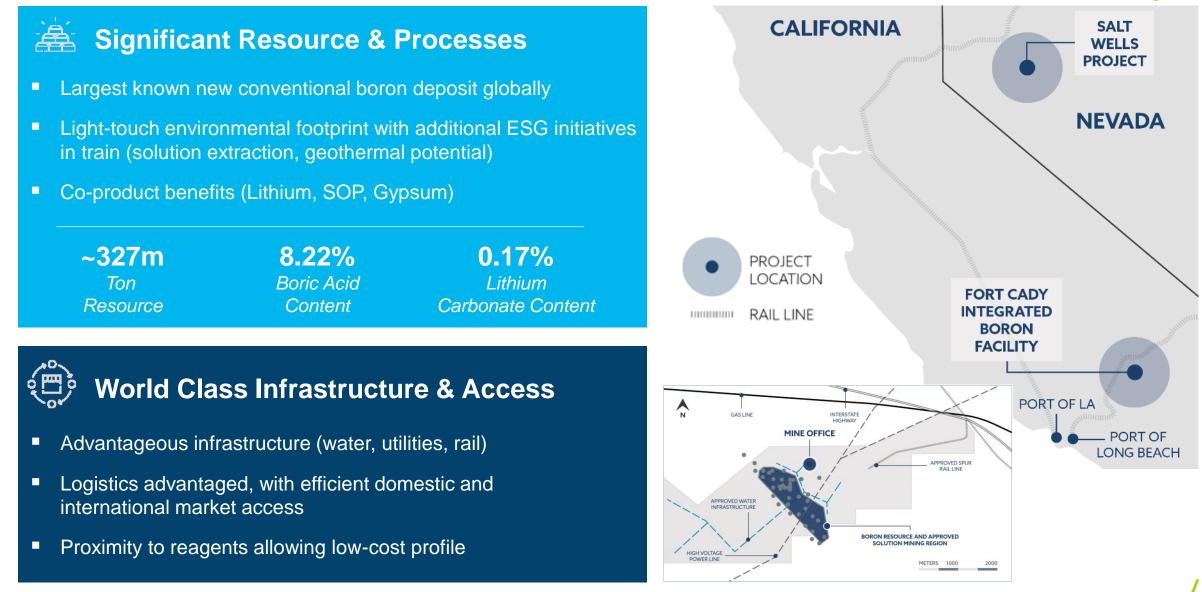


# **BORON**<sup>+</sup>

# Why 5E Advanced Materials

# Significant Resource in Strategic Location with Critical Infrastructure In-Place





5E Advanced Materials confirms all material assumptions and technical parameters underpinning the Mineral Resource Estimates and Reserves continues to apply and have not materially changed as per Listing Rule 5.23.2.

# **Building a Fully Integrated BORON<sup>+</sup> Advanced Materials Business**



1 Extraction	2 Process	3 Value-Add						
<ul> <li>Backwards integration</li> <li>Access to low cost supply</li> <li>400ktpa+ target run-rate production*</li> <li>5.1% boric acid in solution</li> </ul>	<ul> <li>Low carbon footprint</li> <li>Attractive cost profile via by-product sales</li> <li>Build or buy advanced material capabilities</li> </ul>	<ul> <li>Enter agreements to deliver BORON<sup>+</sup> advanced materials</li> <li>Go-to-market strategy underpinned by long-term partnerships</li> <li>R&amp;D to innovate new decarbonization- enabling applications</li> </ul>						
5E as Leader Across the BORON <sup>+</sup> Advanced Materials Supply Chain								



\*Subject to completion of a bankable feasibility study, detailed engineering and financing (post 2023).

Source: Worldometers and IEA.

# **Building Our Competitive Strategic Advantage**



- Focus on green end uses that enable decarbonization
- Build diversified portfolio of leading, value-add BORON<sup>+</sup> products
- Positioning 5E as thought leader in BORON<sup>+</sup>



- Build proprietary processes and capabilities
- Continuous focus on R&D to address emerging trends, identify new market opportunities and develop IP portfolio
- Leverage partnerships with research institutions



- Delivering product via mutually beneficial commercial agreements
- Embedding 5E in supply chains to drive earnings durability
- Partnership feedback to drive product development & innovation

## **Platform and Foundations In-Place to Enable Strategic Execution**





Assembled management team

- Continue Salt Wells exploration
- Achieve target run rate production (module staging optionality)

#### 5E is On Track to Becoming a Global Leader in BORON<sup>+</sup> Advanced Materials

supply agreements

\* Refer to Company ASX announcements (ASX: ABR)

# Leadership Team Ready to Deliver the Business, With Deep Board & Advisors Bench Strength





# **BORON**<sup>+</sup>

# Appendix

# Fort Cady Mineral Resource Estimate and Reserves



S-K 1300 Compliant Mineral Resource Estimate						
Resources	MsT	B <sub>2</sub> O <sub>3</sub> %	H <sub>3</sub> BO <sub>3</sub> %	Li ppm	B <sub>2</sub> O <sub>3</sub> MsT	H <sub>3</sub> BO <sub>3</sub> MsT
Measured	35.96	6.57	11.67	330	2.36	4.2
Indicated	61.59	6.51	11.55	318	4.01	7.12
Total M&I	97.55	6.53	11.61	324	6.37	11.31
Inferred	11.43	6.40	11.37	324	0.74	1.31
Total M, I&I	108.98	6.52	11.60	324	7.11	12.62

JORC Code Compliant Mineral Resource Estimate						
Resources	ММТ	B <sub>2</sub> O <sub>3</sub> %	H <sub>3</sub> BO <sub>3</sub> %	Li ppm	B <sub>2</sub> O <sub>3</sub> MMT	H <sub>3</sub> BO <sub>3</sub> MMT
Measured	38.87	6.70	11.91	379	2.61	4.63
Indicated	19.72	6.40	11.36	343	1.26	2.24
Total M&I	58.59	6.60	11.72	367	3.87	6.87
Inferred	61.85	6.43	11.42	322	3.98	7.07
Total M, I&I	120.44	6.51	11.57	344	7.84	13.93

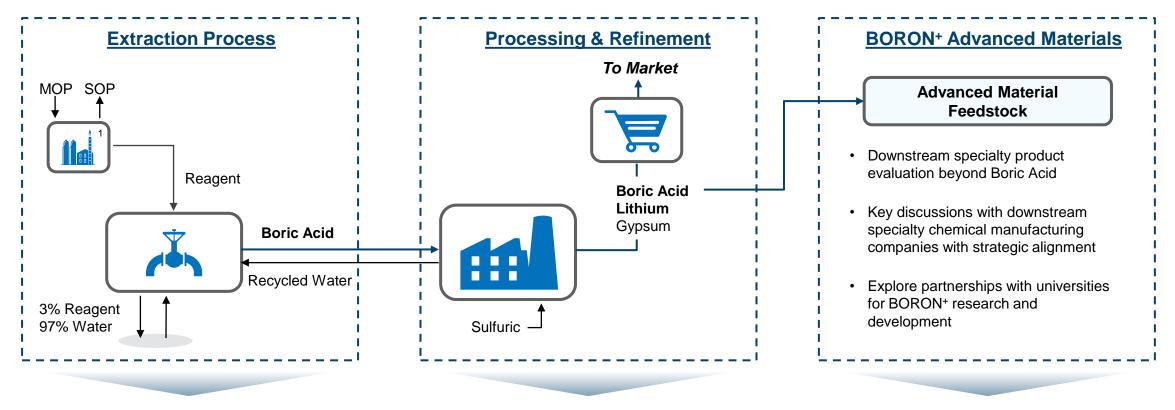
Total S-K 1300 and Uncontrolled Mineral Resource Estimate at 2% cut-Off Grade						
Resources	MsT	B <sub>2</sub> O <sub>3</sub> %	$H_3BO_3 \%$	Li ppm	B <sub>2</sub> O <sub>3</sub> MsT	H <sub>3</sub> BO <sub>3</sub> MsT
Total M, I&I	326.55	4.62	8.22	323	15.09	26.85

Source: Company materials.

5E Advanced Materials confirms all material assumptions and technical parameters underpinning the Mineral Resource Estimates and Reserves continues to apply and have not materially changed as per Listing Rule 5.23.2.

### Integrated Processes to Maximize Clean BORON<sup>+</sup> Extraction & Processing





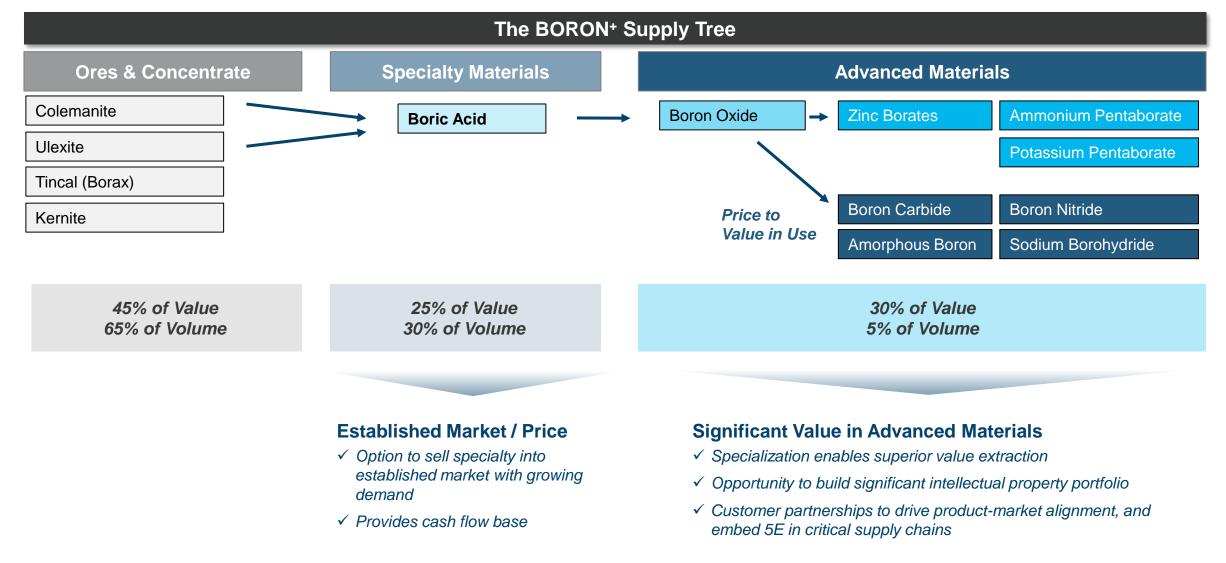
Environmentally-Friendly Extraction Process Ability to Sell Boric Acid Direct into Established Markets; Feed for Downstream Business

Developing Downstream BORON<sup>+</sup> Specialty Capabilities for Higher-Value Applications

Processing and Extraction Centered Around Recyclability ('Closed Loop'), Low Carbon Intensity, and Integration to Maximize Extraction of Co-Products

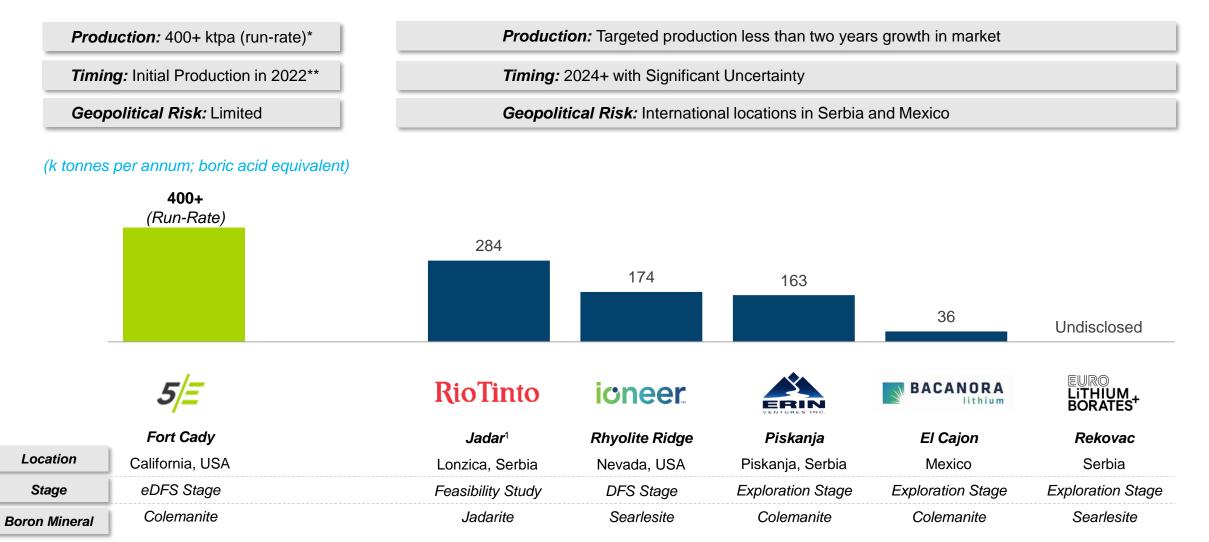
## **Generating Superior Value in Downstream Advanced and Specialty Materials**





# Few Near-Term Supply Alternatives Potentially Entering Service





\*Subject to completion of a bankable feasibility study, detailed engineering and financing (post 2023).

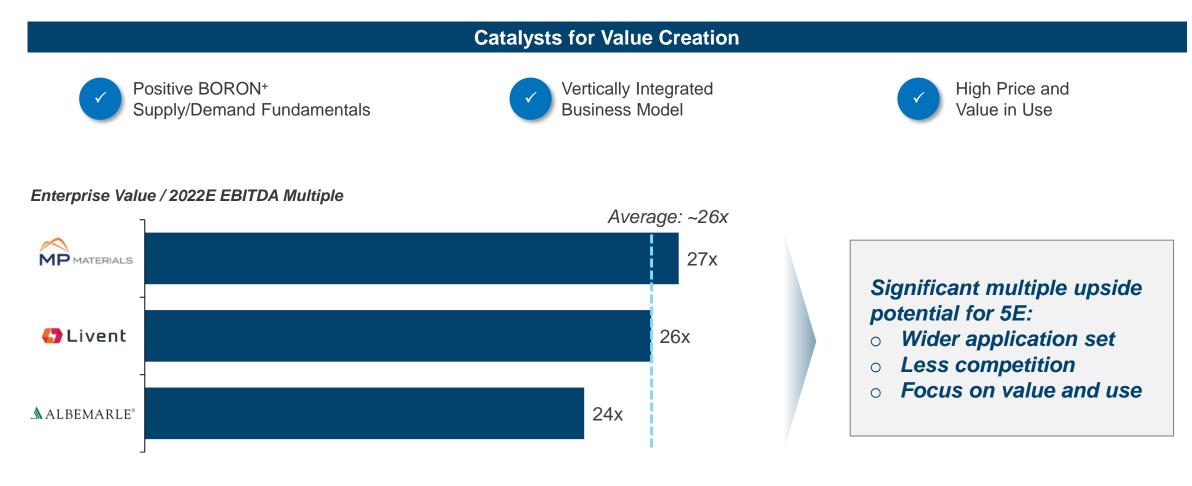
\*\* Initial production from Fort Cady small scale boron facility. Refer to Company ASX announcements (ASX: ABR).

Source: Company materials and publicly available information.

1) Project reportedly on hold after Serbian government opposition based on news release from December 23, 2021.

# **Significant Rerating Potential to Enhance Shareholder Returns**





#### Source: Factset data as of January 14, 2022. EBITDA estimates based on consensus broker estimates where available

# **Capital Markets Platform**



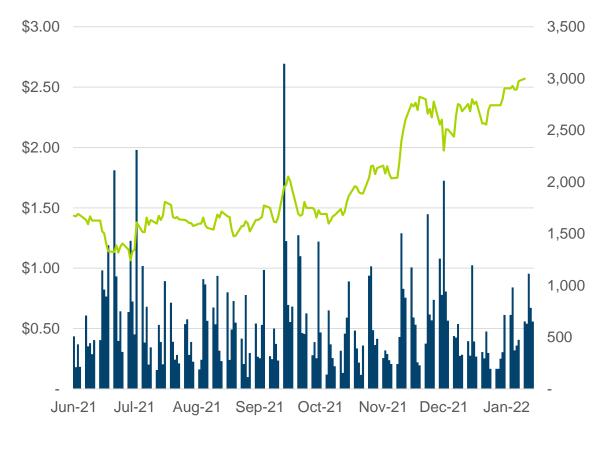
#### **Capital Structure**

(As of January 14, 2022)



#### **Share Price & Trading Volume**

(A\$/share; 000s)



— Share Price

Volume



#### **For Additional Information Please Contact:**

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