

BORATES LIMITED

ASX:ABR

# **Corporate Presentation**

**Enabler of Global Decarbonization** 

# Important Information



The release, publication or distribution of this presentation in certain jurisdictions may be restricted by law and therefore persons in such jurisdictions into which this presentation is released, published or distributed should inform themselves about and observe such restrictions.

#### DISCLAIMER

This presentation is for informational purposes only and does not constitute an offer to sell, or solicitation to purchase, any securities. Such Offer can be made only through proper subscription documentation and only to investors meeting strict suitability requirements. Any failure to comply with these restrictions may constitute a violation of applicable securities laws. In providing this presentation American Pacific Borates Limited ACN 615 606 114 and its subsidiaries ("APBL") has not considered the financial position or needs of the recipient. Persons needing advice should consult their stockbroker, bank manager, solicitor, attorney, accountant or other independent financial and legal advisors.

#### FORWARD LOOKING STATEMENTS

Various statements in this presentation constitute statements relating to intentions, future acts and events. Such statements are generally classified as "forward looking statements" and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed herein. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates" and similar expressions are intended to identify forward-looking statements. APBL caution shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of APBL only as of the date of this presentation. The forward-looking statements made in this presentation relate only to events as of the date on which the statements are made.

#### COMPETENT PERSON - FORT CADY

The information in this release that relates to Exploration Results and Mineral Resource Estimates is based on information prepared by Mr Louis Fourie, P.Geo of Terra Modelling Services. Mr Fourie is a licensed Professional Geoscientist registered with APEGS (Association of Professional Engineers and Geoscientists of Saskatchewan, Canada and a Professional Natural Scientist (Geological Science) with SACNASP (South African Council for Natural Scientific Professions). APEGS and SACNASP are a Joint Ore Reserves Committee (JORC) Code 'Recognized Professional Organization' (RPO). An RPO is an accredited organization to which the Competent Person (CP) under JORC Code Reporting Standards must belong in order to report Exploration Results, Mineral Resources, or Ore Reserves through the ASX. Mr Fourie has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a CP as defined in the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Fourie consents to the inclusion in this presentation of the matters based on their information in the form and context in which it appears.

The information in this release that relates to the conversion of Mineral Resources to Ore Reserves has been prepared by Tabetha A. Stirrett of RESPEC Consulting Inc. Mrs. Tabetha A. Stirrett, P. Geo of RESPEC Consulting Inc. is a member in good standing of the Association of Professional Engineers and Geoscientists of Saskatchewan (Member #10699) and a member of the American Institute of Professional Geologists (CPG) (#11581). APEGS and CPG are a Joint Ore Reserves Committee (JORC) 'Recognised Professional Organization' (RPO). Mrs. Stirrett has sufficient Experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a CP as defined in the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves. Mrs. Stirrett consents to the inclusion in the release of the matters based on their information in the form and context in which it appears.

#### **COMPETENT PERSON – SALT WELLS**

The information in this release that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information prepared by Richard Kern, Certified Professional Geologist (#11494). Richard Kern is a licensed Professional Geoscientist registered with AIPG (American Institute of Professional Geologists) in the United States. AIPGis a Joint Ore Reserves Committee (JORC) Code 'Recognized Professional Organization' (RPO). An RPO is an accredited organization to which the Competent Person (CP) under JORC Code Reporting Standards must belong in order to report Exploration Results, Mineral Resources, or Ore Reserves through the ASX. Richard Kern has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a CP as defined in the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Richard Kern consents to the inclusion in the release of the matters based on their information in the form and context in which it appears.



- Ceramics
- Glass
- Fertilizers
- Magnets
- Batteries
- Insulation
- Wind turbines
- Nuclear reactors
- Semi-Conductors
- Fire retardants

# Borates are the WD40 of the element world

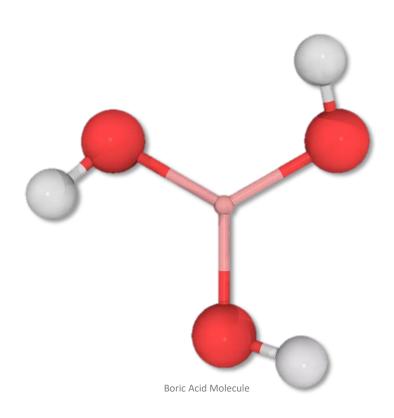


Australian Financial Review February 2021

## **Table of Contents**



- Investment Highlights
- Capital Markets Summary
- Boron 101 What is Boron?
- Fort Cady Integrated Boron Facility
- Fort Cady Resource, Solution Mine
- End-Use Applications Solving Global Issues
- Key Milestones
- Summary



# **Investment Highlights**



#### An emerging leader in boron specialty products and advanced materials







#### CRITICAL ADVANCED MATERIALS

#### New producer of critical advanced material – boronbased specialties



#### **GROWING PRODUCT DEMAND**

 Existing demand growing at GDP+ rates with new Decarbonization led markets



#### **ENABLING DECARBONIZATION**

 Supporting critical markets - Clean Energy, Electric Transportation & Food security



#### LIMITED NEW SUPPLY

Favourable global supply-demand dynamic

#### RARE BORON ASSET

Rare US-based Boron asset enabling lower cost supply

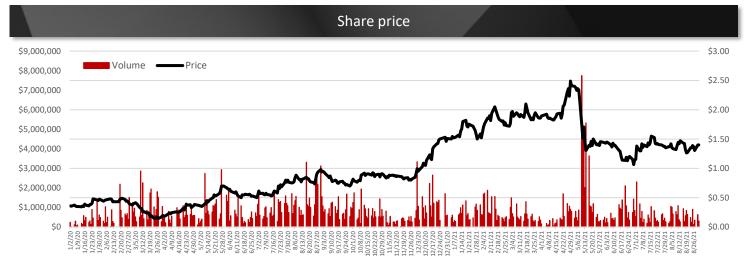
#### WORLD-CLASS MANAGEMENT

• US based executive management ready for execution

# **Corporate Summary**



Capital structure	
Share Price – 31 August 2021	A\$1.40
Share on issue	387.4m
Options (\$0.20 - \$2.50 strike range)	56.9m
Fully Diluted Shares	444m
Undiluted Market Capitalisation	A\$507m
Cash at Bank – 31 August 2021	A\$50.4m
Major Shareholders Virtova Capital Atlas Precious Metals	13% 12%



#### Key Executives

#### Henri Tausch

Chief Executive Officer, MSc

Henri has broad global business experience at Board of Director, CEO and COO level. Most recently he was a Senior Vice President and COO at TSX listed Shawcor Ltd, a global infrastructure and energy technology services company where he worked between 2011 and 2021. Throughout his career he has worked in the United States, Europe and Australia.

#### Dr Dinakar (Dino) Gnanamgari

Chief Commercial / Technical Officer, PhD, BSc

Dino is an experienced specialty chemical industry leader with proven experience in global profit and loss management, marketing, business development, product management and research and development. Dino previously held senior roles with FMC Corporation, Axalta Inc. and Albemarle Corporation where he most recently was Global Business Vice President, Lithium Specialties at Albemarle Corporation. Dino holds a Ph.D. from Yale University in Inorganic Chemistry

#### **Anthony Hall**

Executive Director, LLB(Hons), BBus, AGIA

Qualified lawyer with over 20years' commercial experience in venture capital, risk management, strategy and business development. Anthony was a Founding Director of American Pacific Borates and managed its listing process on the ASX in 2017. Prior to his role with American Pacific Borates Anthony spent five years as the initial Managing Director of ASX listed Highfield Resources Limited taking it from a \$10m IPO valuation to an ASX300 company.

#### **David J Salisbury**

Non-Exec Chairman, B.Sc (Electrical Engineering), MBA

David is a qualified electrical engineer with over 40 years' experience in the global mining industry. He is US based and a former Rio Tinto executive who was President and CEO of Resolution Copper Company, Kennecott Minerals Company and Rössing Uranium Limited. He has been directly responsible for the development, construction and production of four mines.

#### BORON 101 – What is it?

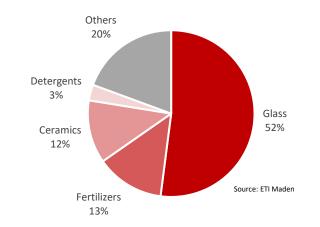


#### Boron is one of the most widely used elements in our society

#### Overview

- Borates are naturally-occurring minerals containing boron and is an essential element that pervades modern life.
- Boron is classified as a strategic commodity in many countries, including the US1, and in the EU<sup>2</sup>.
- Boron exists everywhere plants need boron to grow and people need borates in their diet.
  - They are used in permanent magnets, adhesives, agriculture, borosilicate glass (TFT LCDs, fibre-optics), ceramics, detergents, drilling fluids, fibreglass, flame retardants, fuel cells, lithium-ion batteries, metallurgy, nuclear reactors, personal care products and water treatment processes
  - This broad application means demand is driven by the 'big picture' trends of increasing energy efficiency, food security and urbanisation

#### **Current Borates demand by end use**



















Clean Energy



Turbines









**Treatments** 







<sup>1</sup> https://trumpwhitehouse.archives.gov/presidential-actions/presidential-determination-pursuant-section-303-defense-production-act-1950-amended-4/

<sup>&</sup>lt;sup>2</sup> https://rmis.jrc.ec.europa.eu/uploads/CRMs for Strategic Technologies and Sectors in the EU 2020.pdf

#### BORON 101 – What is it?



#### Increasing uses in decarbonization applications

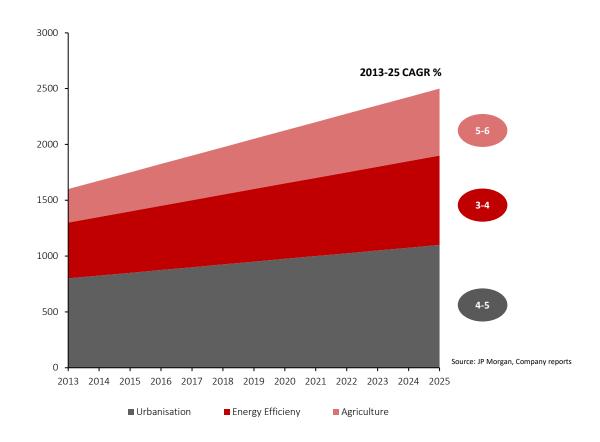
#### **Highly concentrate market**

- The global boron market is dominated by two companies, Eti Maden (Turkish government owned) and Boron (US), a subsidiary of Rio Tinto. Together, they supply ~80% of global boron. Eti Maden alone supplies over 60% of the world market.
- This concentration reflects that occurrences of economically viable borates deposits are rare.
  - Only four main regions have large-scale borate deposits. Anatolia (Turkey), California (US), Central Andes (South America) and Tibet (Central Asia)
  - In addition to dominating borates production
     Turkey has ~73% of the world's total boron reserves

#### Multiple markets that support global decarbonization applications

- CLEAN ENERGY Green energy generation & storage (Wind turbines, Li-ion/Li-S batteries), Energy efficiency (fibre-glass insulation)
- ELECTRIC TRANSPORT Permanent magnets for electric drive trains
- FOOD SECURITY Micro-nutrients that increase crop yield

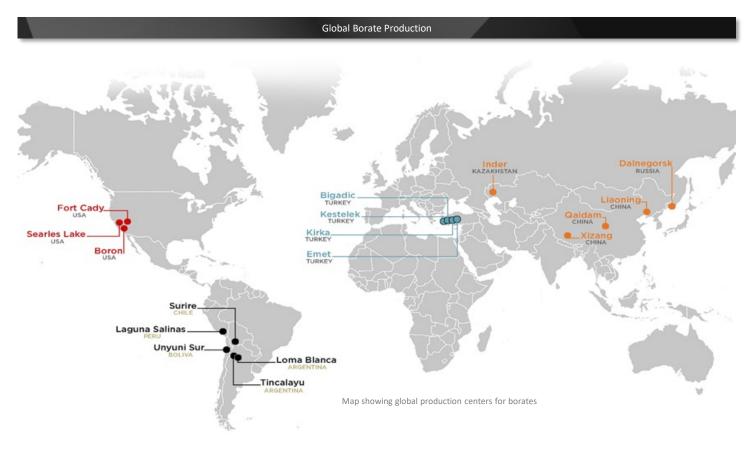
#### **Existing Global borates demand (B2O3 equivalent)**



## BORON 101 – What is it?

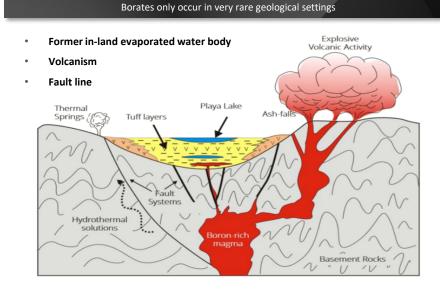


## >80% (and growing) of global supply comes from borate salt operations in Turkey and California



ABR's Fort Cady's Borate Mineral is Colemanite

Table showing the main mined borate minerals globally				
Borate Mineral	Chemical Composition	% B <sub>2</sub> O <sub>3</sub>	Where Mined	
Borax (Tincal)	Na₂B₄O <sub>7</sub> - 10H₂O	36.5%	California & Turkey	
Kernite	Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> - 4H <sub>2</sub> O	51.0%	California	
Ulexite	NaCaB₅O <sub>9</sub> - 8H₂O	43.0%.	California & Turkey	
Colemanite	Ca <sub>2</sub> B <sub>6</sub> O <sub>11</sub> - 5H <sub>2</sub> O	50.8%	Turkey	



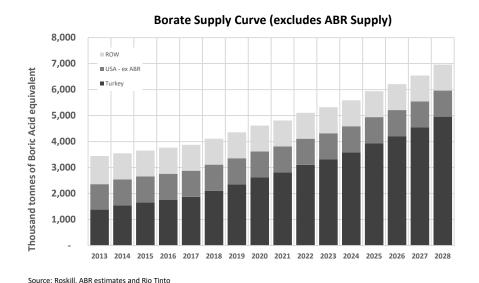
# Boron – US Market and Participants



#### Limited new supply aside from Turkish Government in the short to medium term

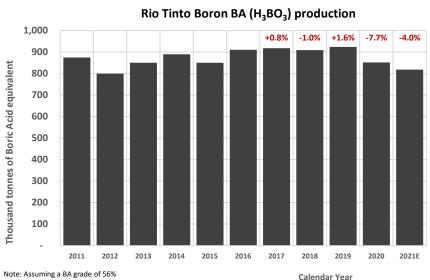
#### Duopoly market with very few global sources of borates

- The global boric acid equivalent market is around 4.5Mtpa.
- Around 20% of this market is for fertiliser application with boron being the second most consumed micro nutrient in North America by value.
- Eti Maden appears to be the only borate producer with meaningful additional supply capacity.



#### **Boron Rio Tinto in the US Market**

- Rio Tinto Borates (majority of US production) appears to be operating at full capacity with flat supply over ten years to 2019.
- Production at Rio Tinto Borates in the US has been decreasing over recent years with COVID-19 and other challenges.
- This reduction in supply is resulting in higher prices and supply shortfalls.



Note: Assuming a BA grade of 56% CY2021 is an estimate based on doubling 1H results

10

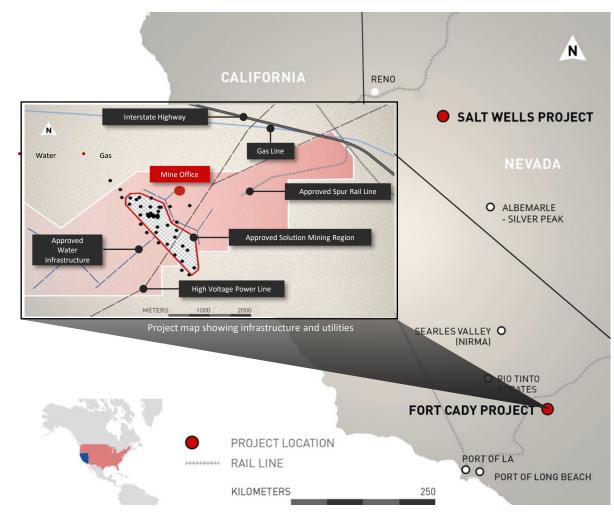
# Fort Cady – Integrated Boron Facility



#### In the right place at the right time

#### **Highlights**

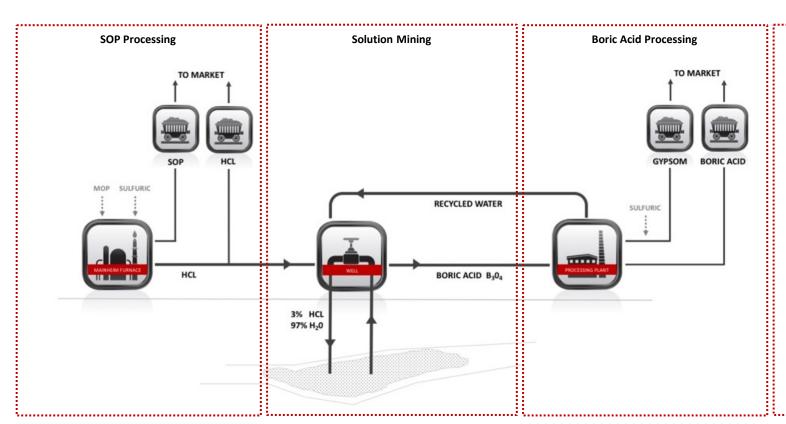
- Excellent jurisdiction (USA California)
- Infrastructure and utilities in place
- Local community and talent
- Rare boron colemanite Resource that can be solution mined
- Light touch environmental footprint
- Favourable impurity profile
- Significant co-product benefits SOP
- Multiple products under evaluation with industry partners / customers:
  - Boric acid
  - Advanced B-materials
  - Boron specialties
  - SOP+B



# Fort Cady – Resource and Solution Mine

#### Fully integrated boron specialty producer

#### **Fort Cady Simplified Flowsheet**

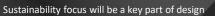


#### **Boron Specialty Production**

Downstream specialty product evaluation beyond Boric Acid to access additional new and emerging markets.

Key discussions with downstream specialty chemical manufacturing companies with strategic alignment.

Explore partnerships with Universities for Boron research and development.



# Fort Cady – Resource and Solution Mine



#### **Substantial Conventional Boron Resource**

#### **Highlights**

- · Rare boron colemanite Resource amenable to solution mining
- Light touch environmental footprint with additional ESG initiatives in train
- Potential for lithium extraction not included in current models
- Permitted for Flow Sheet
- Low cost HCl reagent supplied by SOP operation
- Testing reagent temperature for potential benefits to plant design is underway
- Small-scale commercial operation for value engineering and product in 2022 is under development

JORC compliant Mineral Resource Estimate and Reserve (3 Dec 2018*)						
JORC compliant Mineral Resource Estimate and Reserve						
Reserves	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> MT	H <sub>3</sub> BO <sub>3</sub> MT
- Proven	27.21	6.70	11.91	379	1.82	3.24
- Probable	13.80	6.40	11.36	343	0.88	1.57
Total Reserves	41.01	6.60	11.72	367	2.71	4.81
Resources						
- 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

<sup>\*</sup> ABR confirms all material assumptions and technical parameters underpinning the Resource Estimate and Reserve continue to apply and have not materially changed as per Listing Rule 5.23.2

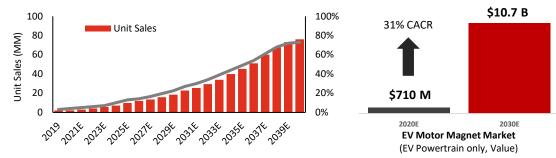
# End-Use Applications – **Permanent Magnets**

# (ap)

#### Boron is uniquely applied to NdFeB permanent magnets

#### **Permanent Magnets Overview**

 Neodymium ferro boron magnets are likely to be in high demand for EVs. This will increase the demand for Boron over the next 20 years..



"The smaller size / weight, higher torque density and improved efficiency of permanent magnet motors compared to induction motors make them attractive for use in HEV and EVs, as they provide better acceleration, reduce vehicle weight and allow greater space for other components. It is expected that other models will introduce permanent magnet motors to improve their performance and range as the EV market becomes more competitive." - Roskill





# Powertrain magnet demand is expected to grow x15 in the next decade

#### **Dominant Motor Technology**

Neodymium / Permanent Magnet

#### **Lithium Ion Battery Technology**

Battery Chemistry	LCO	LMO	LFP	NMC	NCA

#### Select OEMs











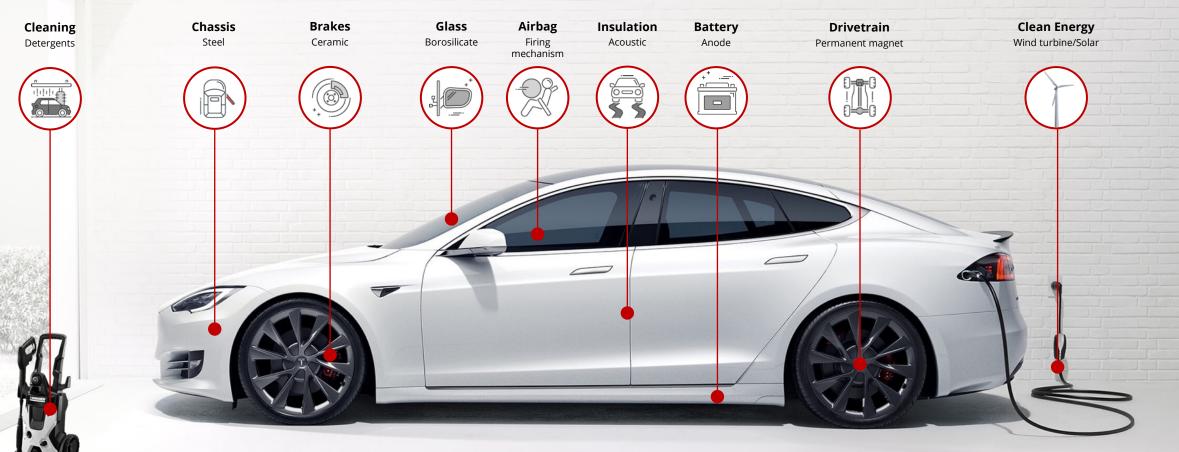


Source: Roskill, Morgan Stanley Research, CRU, MP Materials Analysis, Adamas

# End-Use Applications – **Electric Vehicles**



#### Many and wide uses in electric vehicles



**Electric Vehicles need Borates** 

# End-Use Applications – **Green Energy**

#### Important in main green energy technologies

#### **Wind Turbines**

Drive trains

Blades

#### **Solar PV Modules**

Glass in cells

#### **Energy Storage**

Dominant Li-Ion batteries

Emerging Li-S batteries

#### **Nuclear Power Plants**

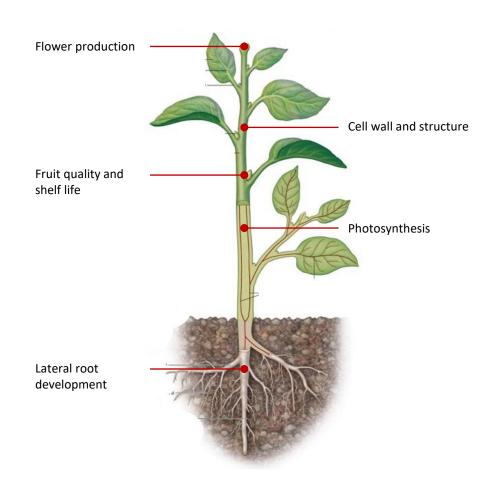
Nuclear reactor

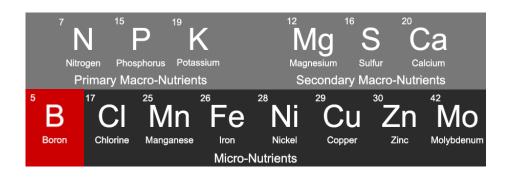


# End-Use Applications – Micro Nutrients

# (ap)

#### Micro-nutrients like boron serve to increase yield





#### **Food Security**

- Boron is one of the eight essential micronutrients or trace elements required by plants.
- Crops with boron sensitivity include: broccoli, cabbage, cauliflower, turnips, rice, beetroot, spinach, asparagus, carrots, eggplants, leeks, okra, onions, parsnips, radishes, strawberries, sweet corn, tomatoes, and potatoes

# End-Use Applications – Micro Nutrients



#### Specialty boron fertilisers being sold at a significant premium

Plants benefit from early and prolonged feeding of boron



- Mosaic's Aspire product combines two forms of boron with potassium into a single granule for uniform nutrient distribution, ensuring each plant receives balanced nutrition for maximum yield potential.
- Development, nutrient uptake and pollination and is proven to increase yields across a variety of crops and soil conditions



Compass' Wolf Trax Boron DDP (Dry Dispersible Powder Technology)
micronutrient and secondary nutrient fertilisers are formulated with at least two
forms of the boron minerals, providing immediate nutrient uptake by the plants,
as well as continuous feeding over time. This ensures nutrients are available to
the plant at the right time, and deficiencies are corrected during critical growth
stages.

#### **Boron in crop production**

- Boron maintains a balance between sugar and starch.
- Boron is essential for proper cell wall formation.
- Boron is important in pollination and seed reproduction.

#### **Reasons for boron deficiency**

- High soil PH
- 2. Leaching in coarse soils
- 3. Low soil organic matter
- 4. Low soil moisture
- 5. High calcium level

#### **Common crops affected**

- Alfalfa
- Canola
- Cotton
- Fruit trees
- Vegetables

#### Visual symptoms

- Yellowing between veins and young leaves
- Cotton: Limited vertical growth making plant appear bushy
- Corn: Missing kernels
- Stunted new growth or dieback of shoot tips

Source: Mosaic, Compass Minerals

# End-Use Applications – **Micro Nutrients**



#### ABR is in the early stages of developing its own Specialty boron fertilizers

ABR's Boron Crop Trial conducted by the University of Connecticut (UConn)

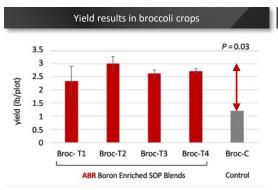
Positive Boron crop trial already completed with the University of Connecticut (UConn), and progressing a partnership with Compass Minerals America Inc. to buy SOP from the Fort Cady Borate Mine, while working together on further crop trials and agronomy studies for Boron enriched fertilizers.

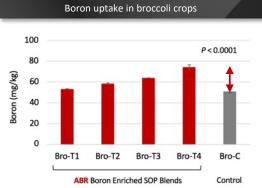
# Fresh Tomatoes Fresh Tomatoes

Photo showing tomatoes picked for yield testing



Photo showing the broccoli trial blocks. ABR applied SOP+B highlighted in yellow compared to crop on right using standard SOP





"The broccoli trials conducted by Uconn demonstrated significant benefits from the use of the boron-enriched SOP. The trials revealed a notable uptake of boron in the crops resulting in dramatic yield improvements.

Broccoli yields increased by more than double."

# **Key Milestones**



#### Milestones to ensure ABR becomes a globally significant producer of borates

#### **Corporate Capability**

Build out world-class US based management team

#### **Product Development**

Initial product in 2022

#### **Process Optimisation**

• Making the right products for the lowest cost and highest margin

#### **Value Creation**

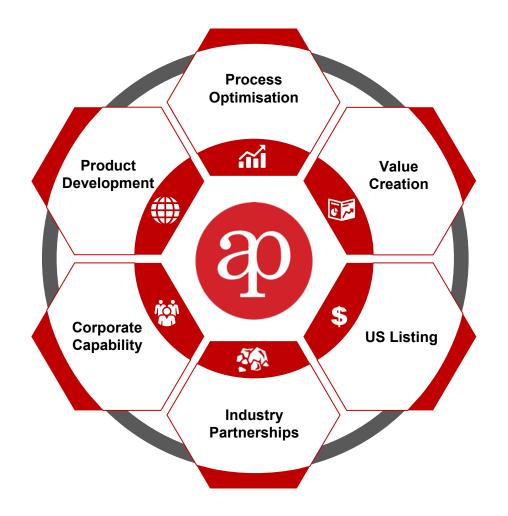
 Establish boron specialties' business to focus on high-tech and high-performance applications

#### **US Listing**

Progress US listing whilst supporting ASX listing

#### **Industry Partnerships**

• Target partners to support high-tech and high-performance product development



# Summary



#### An emerging leader in boron specialty products and advanced materials





**GROWING PRODUCT DEMAND** 



#### CRITICAL ADVANCED MATERIALS

New producer of critical advanced material – boronbased specialties



Existing demand growing at GDP+ rates with new Decarbonization led markets



#### **ENABLING DECARBONIZATION**

 Supporting critical markets - Clean Energy, Electric Transportation & Food security



#### LIMITED NEW SUPPLY

Favourable global supply-demand dynamic

#### RARE BORON ASSET

Rare US-based Boron asset enabling lower cost supply

#### **WORLD-CLASS MANAGEMENT**

• US based executive management ready for execution



DECARBONIZATION | Boron and Decarbonization | Mi

Posted On June 29, 2021

#### FINANCIAL REVIEW

At the same time a host of lesser-known Australian companies have been quietly positioning themselves to become suppliers of critical minerals.

ASX-listed American Pacific Borates, which says it is six months away from producing borates from a mine in California that would make it one of the only mass suppliers of the materials outside Turkey, a country with growing political uncertainty.

#### Borates are the WD40 of the mineral world.

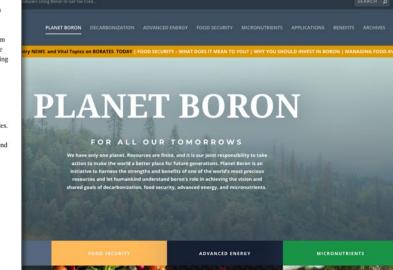
- Anthony Hall, executive director of American Pacific Borates

Borates are essential ingredients in glass, magnets and wind turbine blades. Demand for them are expected to surge in the US as wind generation is expanded from 7 per cent of current US generation to 15 per cent by the end of this decade, according to some forecasts.

"Borates are the WD40 of the mineral world," Anthony Hall, executive director of the company, said in an interview.

"We consider borates to be an enabler of mega-trends. You can't build a permanent magnet without boron. It's used in airbags, windscreens, ceramic brakes, wind turbines, solar modules and nuclear power plants.

Shares of American Pacific Borates hit a record \$1.80 in January, after changing hands for as little as 14 cents in March 2020 and more than doubling from the end of November.



Wednesday 11 August 2021 | The Australian Financial Review | www.afr.com

#### Borate mineral projects



nomy and lithium, graphite and

obalt come readily to investors' minds. Boron is rarely mentioned in dispatches. Yet the ifth element on the periodic table already pervades our modern life and will play a key role n the uptake of renewable energy and the

oader global decarbonisation push. In the form of boric acid, boron has more than 300 current industrial uses, including in heatresistant glass, fibreglass insulation, ceramics, fire retardants, nuclear reactors and water treatment. Boron is already part of our diet and ants need the mineral for root development

But the number of uses is about to escalate. As noted by the report Critical Raw Materials for Strategic Technologies and Sectors in the European Union, borates (boron oxides) are also a key component of lithium-ion batteries, wind turbines, solar photovoltaic (PV) modules and electric powertrains (permanent magnet motors). The vaunted replacement for lithium-ion

batteries, lithium sulphate batteries can only work with boron nanotubes. Lithium-borate salts also have the potential to replace the highly toxic element fluorine in lithium-ion hatteries

"Boron plays many different roles in clear energy technologies, which makes it a key component for low-carbon power generation as well as other applications such as fuel-cell technology and semiconductor manufacturing," says the information site borates today

Currently, the world consumes about 4.5 million tonnes of boric acid equivalent annually more than 10 times the volume of lithium and

four times the amount of graphite. But supply nortages are looming, as evidenced by the uropean Union rating borate supply as 'high risk" along with more exotic materials such as

andium and germanium. "The only 'very high risk' material on the list is rare earths which, despite its name, is not as rar as boron," notes Henri Tausch, the recently appointed CEO of emerging producer American Pacific Borates.

The nub of the supply problem is that two-thirds of the world's boron output is controlled by the Turkish state-owned monopoly Eti Maden. with Rio Tinto's Romo mine in southern alifornia's Mojave Desert accounting for a further 20 per cent or so.

Boron products can also be derived from lithium production, although the elements are hard to separate.

Just down the road from Rio there's a new borate kid on the block: American Pacific Borates fully owned Fort Cady project.

With a resource of 13.93 million tonnes of contained boric acid – enough for at least 23 years of production – Fort Cady is the only permitted mine The SOP comes into the picture as an ingenious way to procure hydrochloric acid – a key reagent for boric acid production - and produces a among six boron projects in development globally valuable fertiliser by-product. As a result, the plant will enable the primary

projects based on colemanite, the most commo on to be produced at a negative cash cost mmercially proven borate mineral. "There's also the potential for substantial value To acquire the mine, American Pacific Borates raised \$15 million through an initial public offering adding," Tausch says. "In crop trials carried out to date, boron added to SOP fertiliser in some cases ulted in yields doubling."

360,000 tonnes of SOP.

and listed on the ASX in July 2017. With two previous owners spending \$US50 million on the project, the company is benefiting Tausch admits that some investors wer nonplussed by the company's strategy shift, believing development timelines had slipped

"It's only a matter of time before the ESG funds start to invest in boron and we are one of the few pure-play listed exposures globally." Henri Tausch

be under the original estimate of SUS210 million —a low number for a project targeting more than SUS400 million of earnings before interest tax Last year, the company tweaked its plans to initially construct a small-scale boron facility producing material tailored for individual depreciation and amortisation (in full production) customers. The company expects to be in meaningful production in 2024, in line with the With extensive business experience, the US-based Tausch was appointed as part of a original timetable. In full production, the mine is management revamp ahead of a proposed ected to produce at a rate of more than

secondary listing on a major US exchange probably NASDAQ. Given the company is well funded with \$54

enable us to test head grades to the process plant, as we believe they will be a lot higher than

our current assumption," he says.
"We are now testing the head grade differently
and believe we will end up with a much stronger

update the market on capital and operating

project with lower risk." With Fort Cady subject to a revised final investment decision (FID), the company is yet to

million in the bank, the listing is not likely to include a capital raising.
"We are really excited about a complementary

US listing at a time when there's a lot of money targeting the ESG [environmental social and nancel investing thematic." Tausch says. "It's only a matter of time before the ESG funds start to invest in boron and we are one of the few sure-play listed exposures globally."

Tausch adds there are 40 million Californians and we hope that some of them will be keen to invest in a decarbonisation story in their own

#### Boron:

A critical enabler of global decarbonisation

Boron is a very rare element that plays a broad and important role in:



**Energy Transition** Nuclear power



Electric Vehicles Energy Efficiency Electric powertrains







ASX: ABR americanpacificborates.com

# About the Company - American Pacific Borates (ASX:ABR)



American Pacific Borates Limited is an ASX listed company focused on advancing its 100% owned Fort Cady Integrated Boron Facility located in Southern California, USA.

The Company is seeking to become a fully integrated producer of boron specialty products and advanced materials. It is targeting boron applications in the field of clean energy transition, electric transportation and food security amongst other high-performance, high-tech and high-margin applications.

The global shift from fossil based systems of energy production to renewable energy is increasingly important to investors, consumers and governments. The emergence of renewable energy, the onset of electrification and improvements in energy storage are all key drivers of clean energy transition. Boron is a key component in energy transition because it is highly versatile in chemical reactions and can be applied in processes for storing chemical and electrical energy, amongst other applications.

Global access to mined boron is rare and the Company's production is underpinned by an even more rare and large colemanite deposit. Colemanite is a conventional boron mineral that has been used to commercially produce boron for broad applications for centuries. The Fort Cady colemanite ore deposit is the largest known contained traditional borate occurrence in the world not owned by the two major borate producers Rio Tinto and Eti Maden. The JORC compliant Mineral Resource Estimate and Reserve comprises 13.93Mt of contained boric acid.

As part of the commercialisation strategy, the Company will produce boric acid, boron specialty products and advanced materials (and SOP as a by-product credit) from Mannheim furnaces. SOP is a high value specialty fertiliser prized for its low chloride potassium and sulfur content. Large target markets exist on ABR's doorstep in California and Arizona (collectively known as the bread basket of the United States).

The Company is currently working through a process to ensure a strong listing on a recognised New York exchange having appointed a US Advisory Board and completing various activities including strengthening its executive management team, focusing on a larger initial mining operation to deliver stronger earlier EBITDA and progressing discussions with US based investment banks, potential US partners and debt capital markets advisors.



BORATES LIMITED

**Henri Tausch** 

Chief Executive Officer

+1 442 292 2120

htausch@americanpacificborates.com

#### **Anthony Hall**

**Executive Director** 

+61 417 466 039

ahall@americanpacificborates.com

**Elvis Jurcevic** 

**Investor Relations** 

+61 408 268 271

ej@irxadvisors.com

# BORON

the "enabler" of global decarbonisation

