

ASX Code: ABR

ACN: 615 606 114

25 September 2018

ABR FORT CADY BORATE PROJECT UPDATE

- Definitive Feasibility Study (DFS) for the Fort Cady Borate Mine on track for completion in Q4,
 CY2018
- Site layout finalised, consistent with approved Plan of Operations (mining permit)
- Further positive discussions with respect to potential partners for the sale of boric acid and gypsum
- First production target of Q4 CY2020, subject to financing, and based on positive discussions with regulatory bodies with respect to project support and permitting

American Pacific Borate and Lithium Limited (ASX:ABR) ("ABR" or the "Company") is pleased to provide an update on its progress as it seeks to complete the DFS for its Fort Cady Borate Project (the "Project") in Q4, CY2018.

Major milestones completed in the period since the last update on 21 August 2018 include:

- 1. Site layout has been finalised consistent with the approved Plan of Operations;
- 2. Further positive discussions with potential partners with respect to the sale of boric acid and gypsum;
- 3. Ongoing positive discussions with regulatory bodies with respect to project support and permitting; and
- 4. The settling on a project timeline that sees first production in Q4, CY2020, subject to financing and permitting.

ABR's CEO and Managing Director Michael Schlumpberger commented:

"The DFS for our Fort Cady Borate Mine remains on target for completion in Q4 CY2018. We have now finalised our site layout that is consistent with our approved Plan of Operations (mining permit). We are pleased to be targeting, subject to financing and final permitting, the commencement of production in Q4, CY2020.

We continue to believe that we have all the right ingredients to become a globally significant producer of borates, including a large colemanite resource that has been successfully mined before, likely low preproduction capex, a brilliant logistics solution and close access to all necessary utilities."

COMPANY DIRECTORS

Harold (Roy) Shipes – Non-Executive Chairman
Michael X. Schlumpberger - Managing Director & CEO
Anthony Hall - Executive Director
Stephen Hunt -Non-Executive Director
John McKinney – Non-Executive Director



ISSUED CAPTIAL

190.1 million shares21.9 million options

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Fort Cady Borate Project DFS Progress

The DFS for the Fort Cady Borate Mine remains on track for completion in Q4, CY2018. Importantly the site layout has been finalised consistent with the Company's Plan of Operations (mining permit), which was approved on 30 December 1994. Significantly this authorisation does not expire.

As identified in the approved Plan of Operations, the process plant site is strategically located to optimise access to the deposit, process water, utilities, access roads and logistics (factoring in access to rail for phase two).

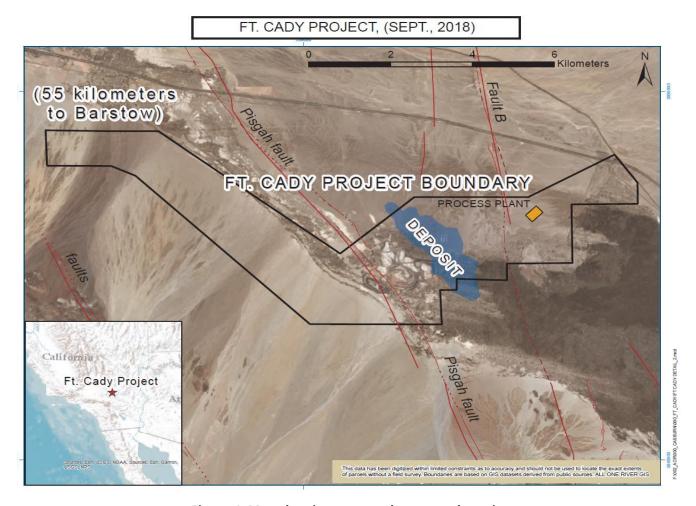


Figure 1: Map showing proposed process plant site





Figure 2: Photo showing proposed process plant site looking south east

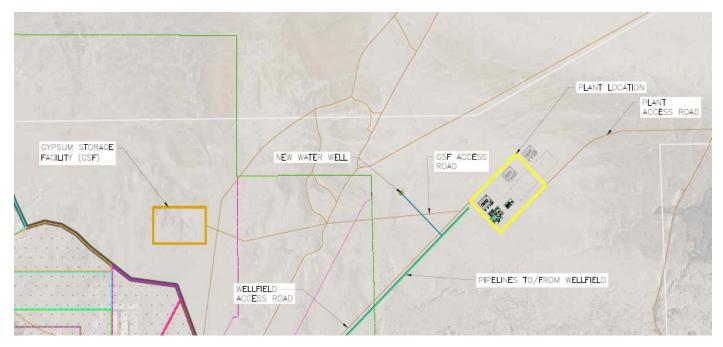


Figure 3: Site Layout (including phases 2 and 3) of Plant and Facilities

The following activities have been completed:

- 1. Bulk samples have been sent to Hazen Research to test the ability of the process to purify the PLS.
- 2. Process layout continues as well as the accompanying estimation of Capex and Opex by Barr Engineering.
- 3. Wellfield layout and mining plan is being finalised for the life of the mine.
- 4. A test water supply well is being designed and planned as part of the existing water supply to the processing facility.



Product Development and Partners

The Company continues to have positive discussions with potential partners for the sale of boric acid and gypsum. The Company is encouraged by its gypsum discussions and believes there is a large Californian market that can potentially absorb its by-product gypsum at full production.

In addition to discussions with respect to boric acid and gypsum, the Company is considering the option of selling by product hydrochloric acid (HCl) from its potassium sulphate (SOP) production. Discussions are progressing with large users of HCl in California that have the potential of underwriting an increase in SOP production. Whilst discussions are at a preliminary stage, the Company is considering options of decoupling the SOP production from the broader project with a view to financing this element of the project via alternate means. This is likely to have a positive benefit on potential project financing.

Permitting

Background

Under relevant US Mining Legislation relating to the Company's Fort Cady Borate Project, the permitting process for a mine is as follows:

- The proponent submits a proposed Plan of Operations for the Mine to the Federal Bureau of Land Management (BLM). Once a Plan of Operations is approved it does not expire. The BLM is the main referral authority.
- 2. The BLM then determines what type of environmental review is required. The three types are essentially as follows:
 - a. No review required for environmentally small and benign projects, or projects that have exemptions for a variety of reasons (Categorical Exclusion)
 - Environmental Assessment for projects that have no limited impacts on items such as water, flora and fauna or geology
 - c. Environmental Impact Statement for projects that are deemed to have Significant Impacts. In this event, the BLM (and in our case, the County of San Bernardino) is responsible for preparing the Environmental Impact Statement (EIS) and the associated Environmental Impact Report (EIR). This document addresses the Significant Impacts, Mitigation Measures and Residual Impacts.
- 3. The other main permitting step is the submission of Mining and Land Reclamation Plan to San Bernardino County in response to the EIR. This document is submitted jointly to the County and the State. An approved Mining and Land Reclamation Plan is required to be rolled over after an initial 30 year period post approval. In our case the County of San Bernardino is the main referral authority.
- 4. There are then a variety of lower permits that are required mainly relating to air quality and water quality.

Fort Cady Permitting Process

Previously, the Fort Cady Project was required to undergo an EIS and an EIR. A draft of an EIS is subjected to a public exposure process where interested parties have the ability to comment on the EIS. In Fort Cady's case, the resulting report identified that with appropriate mitigation measures, any potential significant impact would be mitigated to a "no significant" status.



This resulted in an approved **Plan of Operations** (or Mining Permit) on the Fort Cady Project. The **Record of Decision** is the formal decision document in the USA, recorded for the public, approving the Plan of Operations. This was received on 30 December 1994 and significantly this Plan of Operations authorisation does not expire.

The Proposed Action under the EIS is summarised in the EIS / EIR as follows:

PROPOSED ACTION

The proposed action is on a 343-acre site (Figure 1) and would extract boric acid through the injection and extraction of a weak hydrochloric and/or sulfuric acid solution in the alkaline ore body. The extracted solution would be processed to precipitate boric acid crystals, and the crystals would be packaged for shipment or loaded for bulk delivery. The acid would be removed from the ground through an in-situ mining process which, in simplified terms, involves (1) the pumping of a weak acid solution into the ore body 1,400 feet below the surface; (2) a chemical reaction between the acid and the alkaline elements in the ore body which forms boric acid in the solution; and (3) an extraction of the solution by a reverse-pumping process.

The mining operation would produce gypsum as a by-product, which would potentially be sold to the local cement industry or to producers of drywall or soil conditioners.

In addition to the wells and piping located on the ore body, a variety of other facilities would be constructed as part of the project, including:

- · a series of water wells and waterlines used to produce and route process water;
- a process plant (approximately 240,000 square feet) consisting of equipment to extract the boric acid from the injected solution, purify and crystallize the boric acid, regenerate the acids used in the injection/extraction process, load and ship the boric acid crystals, generate electricity (natural gas cogeneration unit) and process/store chemicals and products;
- ancillary facilities, including a natural gas pipeline to serve the cogeneration power facility;
 and an electrical transmission line to link the plant with outside utility systems;
- · a deposition pond area to store gypsum;
- · a railroad spur to provide bulk shipment capability; and
- a system of access roads to connect site facilities providing access to local road and highway corridors.

The project would employ approximately 80 full-time employees, who would work in alternating shifts 24 hours per day. Based on the size and accessibility of the ore body, the project is expected to be in operation for approximately 130 years.

Source: Final Environmental Impact Statement / Environmental Impace Report, Fort Cady Minerals
Corporation Solution Mining Project, December 1993



As part of the Record of Decision, the key Mining and Land Reclamation Plan is also approved. The introduction to the Record of Decision is provided below.

The Bureau of Land Management received Fort Cady Mineral Corporation's (FCMC) Proposed Plan of Operation (Mining and Land Reclamation Plan) for a solution mining project on the HEC claims (CAMC 20175, etc.) on April 25, 1990. After lengthy consultations and preparation of an extensive Environmental Impact Statement (EIS), I approve this Plan of Operations (POO) as modified by the enclosed Stipulations and incorporate the measures noted in the EIS by reference.

Authorizations specific to the associated Right-of-Way (ROW) applications are in addition to the project elements under the approved POO and are subject to additional terms and conditions.

My decision to approve this plan has been made in consultation with San Bernardino County to ensure that the project meets applicable State of California and San Bernardino County laws and regulations, including California's Surface Mining and Reclamation Act of 1975 as amended (SMARA).

Source: Record of Decision on the Fort Cady Project; granted30 December 1994

Lower level air and water quality permits were subsequently approved. During the public exposure period for the EIS, the EPA made a submission on 27 July 1993, noting:

"We have rated this DEIS as EC-2 – Environmental Concerns – Insufficient Information. Our rating reflects our concerns regarding the proposed project's potential impacts on surface water and groundwater resources and the need for additional information in the FEIS regarding potential impacts to water resources, measures to mitigate these impacts, the federal Underground Injection Control requirements as mandated by the Safe Drinking Water Act."

After the exposure process, and included in the EIS / EIR on page 131, the BLM commented as follows:

The Underground Injection Control (UIC) Program is intended to protect underground sources of drinking water (USDW). A USDW is defined (40 CFR 144.3) as an aquifer that actually or potentially supplies a public water system, currently supplies water for human consumption, and contains fewer than 10,000 mg/L total dissolved solids (TDS). The proposed project would involve use of injection wells to extract minerals in solution from an ore body that: (1) is enclosed within a mudstone formation that is relatively impermeable and predominantly unfractured; (2) is within a mudstone formation that is bounded on the east and west by faults that act as barriers to large-scale infiltration of ore body formation water to aquifers to the east and west; and (3) contains formation water with TDS concentration in excess of 20,000 mg/L. The formation water in the ore body does not currently, nor does it potentially, represent a water supply for human consumption. Furthermore. documented in the EIS/EIR the as potential contamination of aquifers to the east and west as a result of acidic mining solution injection was evaluated as remote. Groundwater monitoring would be conducted to ensure that no contamination occurs. Based on these considerations, the UIC Program is not applicable to the proposed project.

Source: Final Environmental Impact Statement / Environmental Impace Report, Fort Cady Minerals
Corporation Solution Mining Project, December 1993



Further to this, the Company received legal advice that stated the UIC Program was not applicable and it was not necessary to obtain a UIC permit.

Notwithstanding the above, the Company determined to obtain further legal advice, which was received in California on 24 September 2018, and in light of that advice has decided to lodge an application for a UIC permit. The Company does not consider there to be any significant risk associated with the granting of this permit for the reasons noted by the BLM and additional drilling and sampling information it has accumulated over the past year. The Compay does, however, consider there to be more of a risk relating to not obtaining the permit with respect to potential project delays if the referral authority was to argue a permit is necessary at a later stage.

The Company has discussed the proposed course of action with the referral authority and has received advice that the process should take between 6-12 months depending upon whether amendments are necessary to the application. It is important to note that this application is within the normal course of permitting post receipt of the relevant mining permit (Plan of Operations) and that there are "about 165 mining sites with approximately 18,500 [similar] wells operating across the [United States]" (source: https://www.epa.gov/uic/class-iii-injection-wells-solution-mining).

Importantly, the application process is not expected to delay the Project timeline. The Company has instead taken a pragmatic approach to ensuring the timeline to construction is not affected from an unexpected delay.

In addition to the above, it is also necessary to reinstate the "water quality permit" with the Lahanton Regional Water Quality Control Board Waste Discharge permit. The reinstatement of this permit requires construction ready drawings for the proposed tailings' facilities. Given the status of the DFS, this process has commenced and is expected to be completed in early Q1 CY2019. Meetings have been held with the referral authority to ensure appropriate ongoing dialogue and prudent stakeholder management.

Based on the above, the Company is currently working towards a timeline that will see all necessary permits received by the end of Q3, CY2019. With detailed engineering expected to run for nine months, the Company is currently working towards a program that will see the commencement of construction in early Q4, CY2019, subject to financing and permitting.

Indicative Project Timeline

The DFS will show the Company working towards the indicative timeline presented below. The timeline is subject to financing and permitting.

2020 2022 18 2019 2021 2023 2024 2025 ITEM Q1 Q2 Q3 Q4 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Detailed Engineering Phase One Permitting Phase One Project Financing Construction Phase One Full Production Phase One Permitting Phase Two and Three Detailed Engineering Phase Two Construction Phase Two Production Phase Two at 60% Full Production Phase Two Detailed Engineering Phase Three Construction Phase Three Production Phase Three at 60% ull Production

Table 1: Project Timeline



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About American Pacific Borate and Lithium Limited

American Pacific Borate and Lithium Limited is focused on advancing its 100% owned Fort Cady Borate Project located in Southern California, USA (Figure 4). Fort Cady is a highly rare and large colemanite deposit with substantial lithium potential and is the largest known contained borate occurrence in the world not owned by the two major borate producers Rio Tinto and Eti Maden. The Project has a JORC mineral estimate of 120.4 Mt at 6.50% B₂O₃ (11.6% H_3BO_3 , boric acid equivalent) & 340 ppm Li (5% B_2O_3 cut-off) including 58.59 Mt at 6.59% B_2O_3 (11.71% H_3BO_3) & 367 ppm Li in Indicated category and 61.85 Mt @ 6.73% B₂O₃ (11.42% H₃BO₃) & 315 ppm Li in Inferred category. The JORC Resource has 13.9 Mt of contained boric acid. In total, in excess of US\$50m has historically been spent at Fort Cady, including resource drilling, metallurgical test works, well injection tests, permitting activities and substantial pilotscale test works.

ABR expects the Fort Cady Borate Project can quickly be advanced to construction ready status due to the large amount of historical drilling, downhole geophysics, metallurgical test work, pilot plant operations and feasibility studies completed from the 1980's to early 2000's. 33 resource drill holes and 17 injection and production wells were previously completed and used for historical mineral estimates, mining method studies and optimising the process design. Financial metrics were also estimated which provided the former operators encouragement to commence commercial-scale permitting for the Project. In 1994 the Plan of Operations (mining permit) was authorised along with the Mining and Land Reclamation Plan. Relevant air and water quality were obtained and small scale commercial operations commenced in the mid 1995. The two key land use permits and Environmental Impact Study remain active and in good standing.

In addition to the flagship Fort Cady Borate Project, the Company also has an earn in agreement to acquire a 100% interest in the Salt Wells North and Salt Wells South Projects in Nevada, USA on the incurrence of US\$3m of Project expenditures. The Projects cover an area of 36km² and are considered prospective for borates and lithium in the sediments and lithium in the brines within the project area. Surface salt samples from the Salt Wells North project area were assayed in April 2018 and showed elevated levels of both lithium and boron with several results of over 500ppm lithium and over 1% boron.

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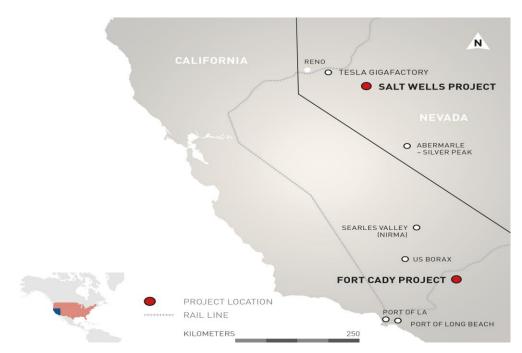


Figure 4. Location of the Fort Cady Project, California and the Salt Wells Projects, Nevada USA