

ASX RELEASE

16th August 2021

ASX: PEC

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We wish to acknowledge the Traditional Custodians of the land (Yamatji Southern Regional) on which we are developing the Beharra Project, and pay our respects to their Elders past, present and emerging.

Beharra White Sand Metallurgical Program Update

HIGHLIGHTS:

- White sand only samples from the recent 86 air-core drilling at Beharra now delivered to IHC Robbins in Brisbane for representative bulk metallurgical testing program.
- The aim of this representative bulk metallurgical testing program is to replicate the previously announced exceptional white sand only laboratory test results.
- Initial sample logging and preparation work by IHC Robbins has now begun, ahead of an 8 to 10 week analytical program.
- First stage results likely due around mid-September with final program conclusion and full results expected in October.
- Estimated 1,500kg of end product samples to be created for shipment to off take partners and potential end users and project funders for their own testing ahead of advanced off-take discussions.
- Metallurgical testing results, which are being completed to Definitive Feasibility Study standard, will also be utilized in the upcoming PFS Update Study due early 2022

Perpetual Resources Limited (ASX: PEC, “PEC”, “Perpetual” or “the Company”) is pleased to announce the commencement of the white sand only bulk representative metallurgical testing program (**Bulk Program**) for Beharra, which is being conducted by mineral sands specialist IHC Robbins (**IHCR**).

PEC's Managing Director, Mr. Robert Benussi commented “The white sand only bulk representative metallurgical testing program for Beharra has potential to be a pivotal milestone for Perpetual, with the aim of proving that a low iron silica sand product can be produced at scale from the Beharra orebody. We anticipate strong results from this round of testing, hoping to approximate the prior laboratory testing undertaken and if successful, we will likely see significant increased interest in Beharra end product

with positive implications for revenue per ton and project economics at Beharra”.

Perpetual has again selected mineral sand specialist consultancy and laboratory operator IHC Robbins to undertake the Bulk Program on the white sand only samples from the recent 86-hole air-core drilling program at Beharra.

IHCR undertook previous investigative laboratory testing which demonstrated the potential to significantly reduce the impurity profile under a white sand only processing scenario at Beharra (please refer to ASX Announcement titled “Exceptional metallurgical test results at Beharra deliver game changing impurity levels”, released on 22nd April 2021). Under this initial laboratory testing program, IHCR subjected the white sand samples to beneficiation stages including a vibrating screen, magnetic separation, attritioning and then heavy liquid separation. This was considered the most indicative laboratory testing flow sheet to enable an interim view on the potential for impurity removal, with the exceptional result of 120ppm Fe₂O₃ confirmed.

The current Bulk Program, using a representative sample from the planned first ten years of operations, aims to confirm the previously announced white sand only laboratory test results utilising production scale equipment, indicative of what the Beharra project can produce once in production. The bulk sample and test work program will comply to a Feasibility Study standard (also often referred to as Bankable and/or Definitive Feasibility Study).



Figure 1 – White sand samples from recent Beharra air-core drilling program arranged at IHC Robbins in Brisbane ahead of bulk metallurgical testing



Figure 2 – White sand samples from recent Beharra air-core drilling program being inspected ahead of testing

With Beharra white sand samples now received at IHCR facilities in Brisbane, composite sample preparation can commence ahead of detailed flow sheet testing. At the conclusion of the Bulk Program, Perpetual will then be in receipt of significant volumes (circa 1,500kg) of end product samples, which are eagerly awaited by numerous existing and potential offtake partners who have expressed significant interest in a low Fe_2O_3 silica sand product from Beharra. All existing and potential offtake discussions are now pending the shipment by Perpetual of these low Fe_2O_3 Bulk Program samples. Potential end customers will then undertake analysis of Beharra white sand end product in their own laboratories and production facilities, after which offtake discussions can be substantially progressed, allowing greater certainty on ultimate offtake demand and product pricing for the lower impurity Beharra silica sand.

The Bulk Program results will be incorporated into the upcoming Pre-Feasibility Study (**PFS**) Update, which, pending a successful outcome of the Bulk Program test work, will contemplate a white sand only mining and processing scenario which has significant potential to enhance project economics through possible higher pricing for Beharra silica sand products (subject to testing outcomes and customer engagement).

Further updates on timing of the PFS Update will be provided once the outcome of the Bulk Program testing is known.

About Perpetual Resources Limited

Perpetual Resources Limited (**Perpetual**) is a focused explorer of silica sands, aiming to produce high purity silica for export to the high growth Asian markets.

Perpetual's flagship asset, the Beharra Project (**Beharra**) is located 300km north of Perth and is 96km south of the port town of Geraldton in Western Australia. Access to the Project from Geraldton (to the north) and Perth (to the South) is via the sealed Brand Highway, thence approximately 8.5km east on the Mt Adams unsealed road providing access to the center of the tenure.



**Mt Adams Road which Intersects the Beharra Tenement (left) and Brand Highway
Intersection with Mt Adams Rd (right)**

The port of Geraldton is an established bulk material handling facility and is currently utilised for the export of bulk materials, minerals, grain, and concentrates. Commodities currently exported via Geraldton Port include grains, copper concentrates, zinc concentrates, nickel concentrates, mineral sands, talc, and iron ore.



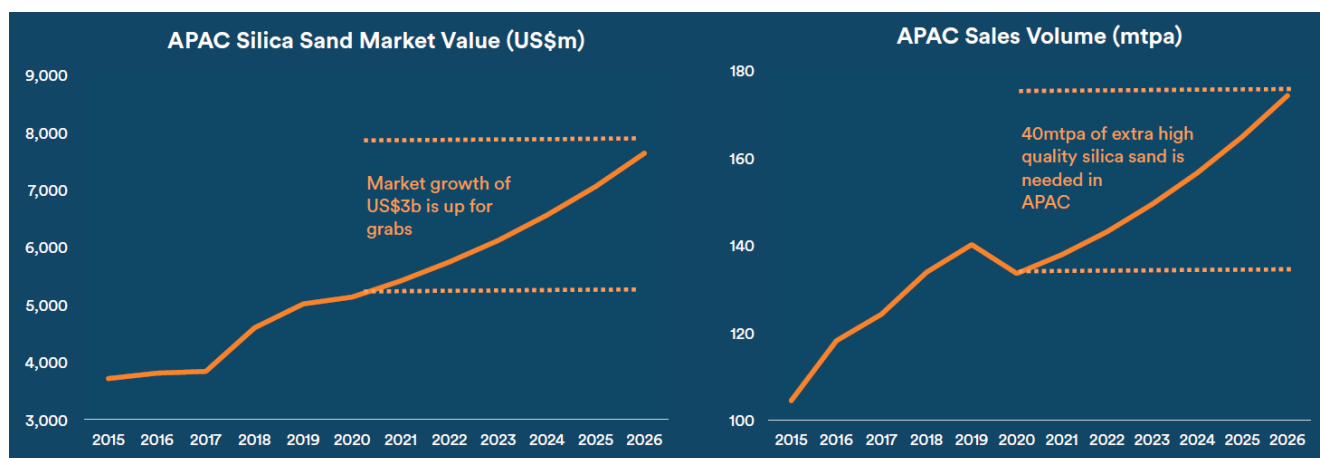
Geraldton Port – Operated by Mid-West Port Authority

Beharra comprises a granted mining lease, M70/1406, covering an effective area of 10.4km², and a granted exploration license, E70/5221, covering an effective land area of 56.8km². Extensive heavy mineral sands mining occurs to the south of Beharra, lime sands mining to the west and natural gas production to the south of the project area.

Auger and air core drilling has confirmed the presence of extensive, high purity silica sands, with a maiden Mineral Resource Estimate completed in July 2020. A detailed Pre-Feasibility Study demonstrating compelling project economics for Beharra was released to the ASX in March 2021, along with a Maiden Ore Reserve.

Silica Sands Market

Silica sands have an extensive range of uses, with lower purity (<99.5% SiO₂) and lower priced applications including construction sand, proppant sand used in well fracturing, and foundry sand. With increasing purity (>99.5% SiO₂) and price, uses include glass making including ultra-clear glass, with a main determinant of the sand's suitability for specific applications and pricing being the level of the key impurity iron oxide (Fe₂O₃). Significant expansion of solar PV cell manufacturing capacity globally is driving demand for silica sand with Fe₂O₃ content of <200ppm and lower, which is a key focus market for Beharra.



Source: IMARC Group, Report Title: "Asia Pacific Silica Sand Market: Industry Trends, Share, Size, Growth, Opportunity and Forecast 2021-2026", Report Date: February 2021

Perpetual is targeting the high growth Asia Pacific silica sand markets, where independent market assessments have calculated a 40mtpa incremental market growth opportunity through to 2026.

This announcement has been approved for release by the Board of Perpetual.

For enquiries regarding this release please contact:

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Forward-looking statements

Certain statements contained in this document may be 'forward-looking' and may include, amongst other things, statements regarding production targets, economic analysis, resource trends, pricing, recovery costs, and capital expenditure. These 'forward-looking' statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Perpetual, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

Forward-looking statements are often, but not always, identified by the use of words such as 'believe', 'expect', 'anticipate', 'indicate', 'target', 'plan', 'intends', 'budget', 'estimate', 'may', 'will', 'schedule' and others of similar nature. Perpetual does not undertake any obligation to update forward-looking statements even if circumstances or management's estimates or opinions should change. Investors should not place undue reliance on forward-looking statements as they are not a guarantee of future performance.

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COMPETENT PERSONS STATEMENT

The information in this report that relates to exploration activities for the Beharra Project is based on information compiled and fairly represented by Mr Colin Ross Hastings, who is a Member of the Australasian Institute of Mining and Metallurgy and consultant to Perpetual Resources Limited. Mr Hastings is also a shareholder of Perpetual Resources Limited. Mr Hastings has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Hastings consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.