## **ASX RELEASE**

24<sup>th</sup> May 2021 ASX: PEC

# CORPORATE DIRECTORY

**Executive Chairman**Julian Babarczy

Managing Director
Robert Benussi

Non-Executive Director
Brett Grosvenor

Non-Executive Director & Company Secretary George Karafotias

#### **PROJECTS**

Beharra Silica Sands Sargon Hub Eneabba Hub

#### CONTACT

Suite 801 Level 8 84 Pitt Street Sydney NSW 2000

**George Karafotias** +61 421 086 550

**Robert Benussi** +61 410 415 335

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.



# Third Stage of Air Core Drilling At Beharra Silica Sand Project to Commence

#### **HIGHLIGHTS:**

- Planning for the third stage Beharra drilling program now complete, with 86 drill holes proposed.
- Suitable air-core drilling contractor engaged with plans for commencement in early June.
- Aim of drill program is to define a white sand only resource and reserve covering the first 10 years of mine life at Beharra.
- Planning completed for bulk metallurgical test work program for white sand samples, with target delivery of results in late July.
- Beharra Feasibility Study planning currently ongoing, with final study delivery timing to be confirmed in August after receipt of white sand test results.

Perpetual Resources Limited (ASX: PEC, "PEC", "Perpetual" or "the Company") is pleased to announce the receipt of the Program of Works (PoW) from the WA Government Department of Mines, Industry, Regulation and Safety (DMIRS), for the upcoming Beharra white sand only drill program.

Perpetual Managing Director, Mr. Robert Benussi commented on the PoW approval, "It was pleasing to receive the required drilling approval from DMIRS in such a rapid fashion, as it allows us to now move quickly to mobilise a suitable drill rig for a defining drill program at Beharra. This upcoming program is targeting the white sand horizon at Beharra and is aiming to delineate a reserve classification for the first 10 years of mine life. This program will also generate enough white sand samples to complete the planned 2 tonnes representative bulk sample metallurgical test program, which will aid in our confirmation of final product specification at Beharra. We will move into the



Feasibility Study later this year. The metallurgical program will also generate significant white sand only end-product for marketing samples and off take discussions. All current offtake discussions will be focused on receipt of these samples due to their extremely low iron content and therefore much higher demand profile".

#### **Upcoming Drill Program**

Perpetual has now finalized an 86-hole air-core drill program to commence in early June. The drill program has been designed by Snowden Mining Consultants (Snowden), with the aim of providing certainty on the first 10 years of mine life at Beharra under a white sand only mining scenario. Snowden is ideally placed to undertake this drill program planning due to their involvement in the previously announced Mineral Resource Estimate and Ore Reserve Estimate at Beharra.

Perpetual has contracted Hornet Drilling Pty Ltd to undertake the drill program, which is expected to take approximately 4 to 5 days to complete.

Perpetual will update shareholders closer to the date once a definitive start date is confirmed.

#### **Representative Bulk Metallurgical Test Program**

Consistent with previous metallurgical programs, Perpetual has commissioned specialist sand testing laboratory IHC Robbins to undertake the 2 tonne representative bulk metallurgical program on the white sand samples recovered from the upcoming drill program at Beharra.

On 22<sup>nd</sup> April 2021, Perpetual announced the results of a 300kg white sand only laboratory test, undertaken by IHC Robbins, which demonstrated that Beharra white sand could be upgraded, using only gravity and magnetic separation methods, to 99.8% SiO<sub>2</sub> and Fe<sub>2</sub>O<sub>3</sub> content of 120ppm (refer to ASX Announcement titled "Exceptional metallurgical test results at Beharra deliver game changing impurity levels", released on 22<sup>nd</sup> April 2021). This decrease in impurity levels was seen as exceptional and suggests that Beharra white sand could be suitable for the higher priced and fast-growing solar PV-cell manufacturing industry, which requires low Fe<sub>2</sub>O<sub>3</sub> silica sand.

The purpose of the upcoming IHC Robbins testing program is to validate impurity levels from a wider white sand composite sample (as opposed to the initial 300kg sample from one location). IHC Robbins will look to define a flow sheet which is replicable under a full production scenario, noting that the results announced on 22<sup>nd</sup> April 2021 utilised laboratory equipment only and not full production equipment.

Perpetual is extremely optimistic that the previous test results will be broadly replicated, as the location for the previous 300kg sample was chosen due to it matching the average head grade of the defined Ore Reserve and Mineral Resource Estimate. Based on current timelines, results from this testing program are due in the third quarter 2021.



#### **Beharra Feasibility Study Update**

Planning is currently underway for the commencement of the Beharra Feasibility Study (FS), which will be informed by the white sand testing program to be undertaken by IHC Robbins. Several study packages are currently being scoped out with a view to commence in coming weeks. A timeline for delivery of this FS will be provided in August, once end product quality is confirmed by IHC Robbins. Minor delays to previously reported timelines are likely because of the exciting white sand test results which require additional drilling and analysis prior to formal FS study commencement.

In addition to planning for the Beharra FS, Perpetual is also exploring options to undertake an update to the previously announced Beharra Pre-Feasibility Study (PFS). (Refer to ASX Announcement titled "Maiden Ore Reserve and Outstanding Beharra PFS Results", dated 17<sup>th</sup> March 2021). The Beharra PFS assumed a mining and processing scenario which involved the combining of both the yellow and white sand horizons, whereas current test work is focused on selective mining and processing of the white sand horizon only. While Perpetual awaits the outcome of the planned representative bulk metallurgical program, assuming the expected results support a white sand only development scenario, Perpetual is exploring its options to update the existing PFS so as to provide shareholders with an up-to-date view on likely project economics under a white sand only production scenario.

Perpetual will update shareholder on PFS and FS activities in coming months.



### **About Perpetual Resources Limited**

Perpetual Resources Limited (Perpetual) is a focused explorer of silica sands, aiming to produce high purity silica and construction sands for domestic and international markets.

Perpetual's flagship asset, the Beharra Project 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 the Mt Adams unsealed road providing access to the center of the tenure.



Mt Adams Road which Intersects the Beharra Tenement



**Brand Highway Proximal to Beharra** 



The port of Geraldton is utilised as a bulk material handling facility and is currently utilised for the export of bulk materials, minerals and concentrates. Grains, copper concentrates, zinc concentrates, nickel concentrates, mineral sands, talc, and iron ore are currently being exported from the port. Extensive heavy mineral sands mining occurs to the south of the Project area, lime sands mining to the west and natural gas production to the south of the Project.

The Beharra Project comprises of a single exploration license, E70/5221, covering an effective land area of 56.8km2.

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 and Maiden Ore Reserve for Beharra was released to the ASX on March 17th, 2021.

#### Silica Sands Market

Silica sands have an extensive range of uses including lower purity and grade applications such as construction sand, proppant sand used in well fracturing, and foundry sand. With increasing purity (>99.5% SiO2) uses includes glass making including clear glass. Uses for purity >99.8% includes semi-conductor fillers, LCD screens, and optical glass.

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

#### For enquiries regarding this release please contact:

Mr. George Karafotias *Company Secretary* +61 421 086 550