

ASX Announcement 28 May 2021

Exercise of Option over Teesside Rare Earth Refinery Site

- **Decision to exercise GBP1.8m option for a long-term lease to develop Teesside Refinery**
- **Development of the Teesside Refinery will transform Peak into a leading integrated rare earth producer outside of China and represents key milestone for rare earth development in the UK**
- **Positions Peak to benefit from significant demand for electric vehicles and renewable energy, as a key rare earth supplier to these sectors**
- **250 year lease at nominal rent, with receipt of all planning and environmental approvals to build the Teesside Refinery**
- **Teesside development to occur in parallel with Peak's Ngualla Rare Earth Project in Tanzania, to process Ngualla's concentrate**
- **Located within the Teesside freeport area in Northern England, close to the deep-water Teesport; benefits from "plug and play" infrastructure and utilities, while creating 130 long-term jobs**

Peak Resources Limited (ASX: **PEK**) ("**Peak**" or the "**Company**") is pleased to announce that it has served notice to exercise its option for a 250-year lease from Homes England (a UK Government body) over a 19-hectare parcel of land within the Wilton International Site ("Wilton") located near the town of Middlesbrough in the Tees Valley, United Kingdom ("UK").

Peak intends to construct its Teesside Refinery on the site to receive high-grade rare earth concentrate from its planned Ngualla Rare Earth Project in Tanzania ("Ngualla"), which will produce Neodymium Praseodymium Oxide ("NdPr Oxide") and other separated rare earth products that are critical for electric vehicles and renewable energy technologies. The construction of the Teesside Refinery is intended to occur in parallel with the development of Ngualla.¹

The development of the Teesside Refinery is central to Peak's strategy of becoming the second fully integrated producer of NdPr Oxide outside of China.

Peak will pay an upfront amount of GBP1,858,712 to exercise its option over the Teesside Refinery site, with annual rent structured as a nominal peppercorn payment. Consideration will be funded from Peak's existing cash reserves and execution of the long-term lease is expected to occur by mid-June 2021.

Construction and development of the Teesside Refinery is expected to cost approximately US\$160m and create around 130 long-term jobs.

¹ As announced to ASX previously, the development of the Ngualla Rare Earths Project remains subject to the grant of a Special Mining Licence over the project area, the finalisation of an Economic Framework Agreement with the Tanzanian Government and the completion of project finance. A decision to proceed to construct the Teesside Refinery remains contingent on successfully resolving these outstanding matters.

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An Environmental Permit for the project was granted in August 2018 and Planning Permission from Redcar & Cleveland Borough Council was implemented in April 2021.

The Teesside Refinery site is located within the Teesside designated Freeport area. Following recent announcements by the UK Government, freeport areas are expected to benefit from lower tariffs and customs charges, simplified customs procedures, streamlined planning processes, tax breaks to encourage investment and government support to promote regeneration and innovation.

Development of the Teesside Refinery is consistent with increased international focus on diversifying rare earth supply and supporting production outside of China.

Bardin Davis, Managing Director of Peak commented:

“This is a significant milestone for Peak and our strategy to become one of the major integrated producers of NdPr Oxide outside of China. With incredibly strong global demand for non-Chinese rare earths, we are ideally placed to supply these critical commodities, which are driving the electrification and decarbonisation revolution.

The Teesside location provides a major competitive advantage with its “plug and play” infrastructure, skilled labour force and proximity to potential customers, while its freeport status provides tangible tax and other benefits. Our refinery is also poised to make the UK a major supplier of NdPr Oxide, supporting its transition towards a net-zero carbon economy and the development of its cleantech supply chains.

The project also has strong government backing and on behalf of Peak I would like to thank Homes England, Redcar and Cleveland Borough Council and the UK Department for International Trade for their ongoing support.”

About the Teesside Refinery

The Teesside Refinery will be located within the Wilton International Site (“Wilton”), which is located near the town of Middlesbrough in the Tees Valley. Wilton is a large-scale industrial park that has existing access to reliable competitively priced power, utilities and services. It is located within 3km of the Teesport deep-water port (the third largest UK port by volume) which has existing capacity to receive rare earth mineral concentrate and reagents, and close to several facilities that can manage waste residue from the refining process (Figure 1).

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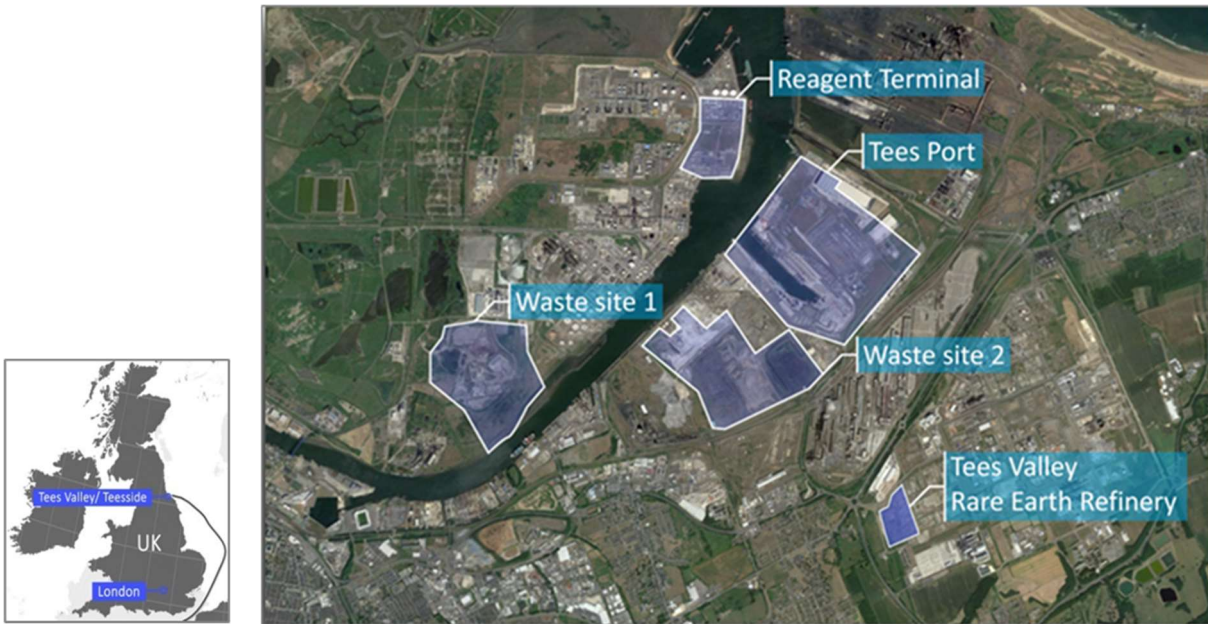


Figure 1: Teesside Refinery site and surrounding area and facilities

The Teesside location was selected after assessing 24 possible locations around the world. Key criteria in assessing the location for a refinery included access to global shipping, cheap and reliable bulk reagent supplies (particularly hydrochloric acid), a labour force with chemical processing and refinery experience, corporate and indirect taxes, readily available power, water and environmentally sustainable options to dispose of waste materials.



Figure 2: Teesside Refinery planned layout

Flowsheet and Production

A Bankable Feasibility Study (“BFS”) covering both the Ngualla Rare Earth Project in Tanzania and the Teesside Refinery was completed in April 2017. The BFS was backed by detailed engineering design and cost studies as well as fully piloted Beneficiation (Ore-to-Concentrate) and Refining (Concentrate-to-NdPr Oxide and other separated products) processes.

The refining process flowsheet entails alkali roast processing to produce a rare earth solution feed to a solvent extraction-based separation process. Material is first roasted with alkali, then washed and filtered before being leached using a low-strength hydrochloric acid. Solvent extraction is then used to firstly separate mid and heavy rare earths, followed by NdPr and finally Cerium and Lanthanum (Figure 3).

The alkali roast is a dry free-flowing thermal process that avoids the high energy requirements and environmental impacts associated with acid baking. The process also benefits from low rate of acid consumption, owing to the absence of acid consuming carbonate and phosphate in the mineralisation and relatively low levels of iron in concentrate. The bastnasite-hosted nature of the mineralisation at Ngualla means the refining process will not produce waste residue with elevated levels of radionuclides.

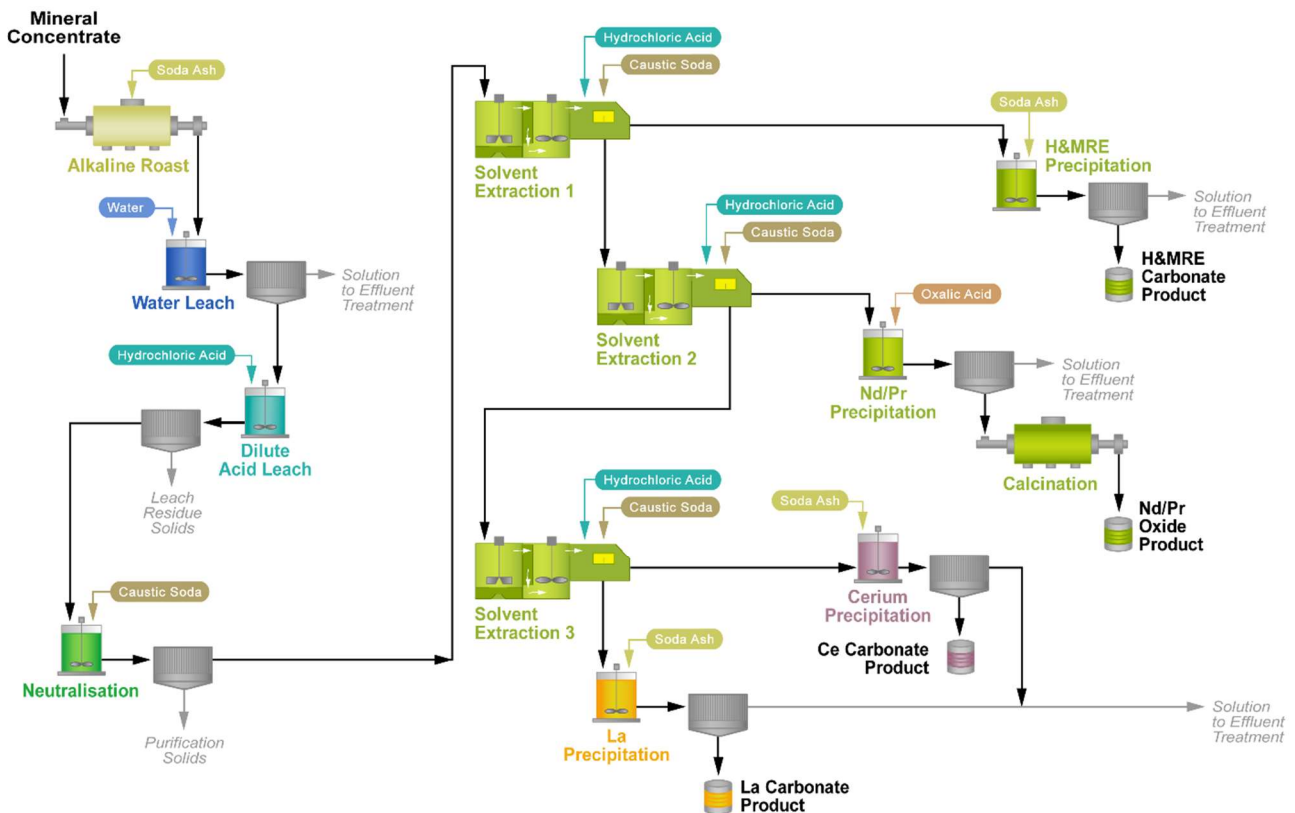


Figure 3: Teesside Refinery Schematic Flowsheet

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The four products that are proposed to be produced at the Teesside Refinery are:

- A high purity NdPr Oxide (99.9%) product, with capacity to produce up to approximately 2,810 tonnes per annum (“tpa”);
- A combined mid and heavy rare earth carbonate, with capacity to produce up to approximately 625tpa (equivalent to 330tpa of contained Rare Earths Oxides (“REO”));
- A separated lanthanum rare earth carbonate, with capacity to produce up to approximately 7,995tpa (equivalent to 4,230tpa of contained REO); and
- A separated cerium rare earth carbonate, with capacity to produce up to approximately 3,475tpa (equivalent to 1,920tpa of contained REO).

This announcement is authorised for release by the Company’s Board of Directors.

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Bankable Feasibility Study

This announcement references the Bankable Feasibility Study (“BFS”) and its outputs.

The Bankable Feasibility Study is reported in the Company’s ASX announcements dated 12 April 2017, 28 August 2017 and 12 October 2017.

The ASX announcements are available to view on the Company’s website and the ASX Announcements platform.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the announcements, and that all material assumptions underpinning the estimates continue to apply and have not materially changed.

The Framework Agreement to be negotiated with the Government of the United Republic of Tanzania may require an update to the BFS.

Forward Looking Statements

This announcement contains forward-looking information which is based on the assumptions, estimates, analysis and opinions of management and engaged consultants made in light of experience and perception of trends, current conditions and expected developments, as well as other factors believed to be relevant and reasonable in the circumstances at the date that such statements are made, but which may prove to be incorrect.

Assumptions have been made by the Company regarding, among other things: the commodity prices, the timely receipt of required approvals, the accuracy of capital and operating cost estimates, the completion of studies on its exploration and development activities, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used by the Company.

Although management believes that the assumptions made and the expectations represented by such information are reasonable, there can be no assurance that the forward-looking information will prove to be accurate.

Forward-looking information involves known and unknown risks, uncertainties, and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any anticipated future results, performance or achievements expressed or implied by such forward-looking information. Readers should not place undue reliance on forward-looking information. Neither the Company nor its directors undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.