ASX Announcement 22 April 2024

## Peak and Minjingu Mines Sign

## Phosphate Co-operation and Development MOU

- Peak has signed a non-binding co-operation and development MOU with Minjingu Mines around the future supply of phosphate from the Ngualla Deposit
- Key elements include
- Potential co-operation around sales, offtake and co-investment
- Joint study group to expedite the development of a low-cost beneficiation flowsheet
- Follows the recently identified opportunity to supply phosphate into the Tanzanian and regional fertiliser markets
- Minjingu Mines is an established Tanzanian phosphate mining and fertiliser group with a customer network across Tanzania, South Africa, Zambia, Kenya, Uganda and Rwanda
- Supports Peak's vision of developing a multi-commodity and multi-generational project at Ngualla

Peak Rare Earths Limited (ASX: PEK) ("Peak" or the "Company") is pleased to announce the signing of a non-binding Co-operation and Development Memorandum of Understanding ("MOU") with Tanzanian phosphate and fertiliser group, Minjingu Mines and Fertiliser Limited ("Minjingu Mines"). Whilst Peak's primary focus remains on the development of the Ngualla Rare Earth Project, the MOU supports the potential of a complementary phosphate operation.

Minjingu Mines is a private Tanzanian company with a proven track-record within the Eastern and Southern African fertiliser market. Its operations include the Minjingu Phosphate Mine in Tanzania, one of the only active phosphate mines in Eastern Africa, where it produces a range of organic and blended fertiliser products. Minjingu Mines' customer network extends to Tanzania, South Africa, Zambia, Kenya, Uganda and Rwanda.

Commenting on the MOU, Peak's Chief Executive Officer, Bardin Davis commented:
"The potential development of a high-grade phosphate operation is an exciting opportunity and consistent with our vision of a multi-commodity and multi-generational Ngualla Project. It would provide a major source of phosphate for Tanzania and is consistent with Government initiatives around enhancing agricultural yields and bolstering food security. We are delighted to be working with a highly experienced partner such as Minjingu Mines to unlock this opportunity"

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Mr. Tosky Hans, Managing Director of Minjingu Mines commented:
"Ngualla has the makings of a world-class phosphate deposit and we see significant synergies with our existing fertiliser supply chain through Tanzania as well as Eastern and Southern Africa. We look forward to working with Peak and Mamba Minerals in assessing the expedient development of a technically and commercially robust project."

## Key terms

Under the terms of the non-binding MOU, Peak and Minjingu Mines will evaluate potential co-operation around the future development of phosphate from the Ngualla Deposit including:

- Mining and beneficiation;
- Offtake and sales arrangements;
- Transport and logistics; and
- Potential joint venture, co-investment, partnering and funding structures.

A joint study group is to be formed to expedite the development of a low-cost phosphate beneficiation flowsheet, within a targeted timeframe of six months.

Preliminary tests on phosphate from Ngualla have already been undertaken at Minjingu Mines' labs in Arusha, Tanzania.

The non-binding MOU has an initial term of 12 months.

## Peak's phosphate opportunity

The Ngualla Deposit remains highly prospective for phosphate, which was previously the primary exploration focus prior to the discovery of rare earths in 2010.

Drilling campaigns in $2012^{1}$ and in late $2023^{2}$ confirmed widespread and shallow mineralisation of phosphate within the Northern Zone, an area located $\sim 2 \mathrm{~km}$ North of the Bastnaesite Zone (see Figure 1), with numerous intercepts exceeding 20\% $\mathrm{P}_{2} \mathrm{O}_{5}$.

As Ngualla is an igneous deposit, phosphate mineralisation within the Northern Zone is associated with low levels of deleterious elements such as cadmium, lead and mercury.

The current area of phosphate mineralisation within the Northern Zone is $\sim 2.2 \mathrm{~km}^{2}$ and it remains open in the northern direction.

[^0]ASX Announcement 22 April 2024
Figure 1. Phosphate mineralisation within Northern Zone ${ }^{3}$


Table 1. Drilling summary (Northern Zone) ${ }^{\mathbf{3}}$

|  | Reverse Circulation | Diamond Drilling | Total |
| :---: | :---: | :---: | :---: |
| Holes | 75 | 2 | 77 |
| Distance $(m)$ | 5,584 | 190 | 5,774 |

[^1]
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The signing of a non-binding MOU with Minjingu Mines follows a recently identified opportunity to supply phosphate into the regional fertiliser sector.

Preliminary bioavailability testwork undertaken on phosphate samples confirm the potential use as a direct application phosphorus fertiliser ${ }^{4}$.

Phosphate-derived fertiliser use within Tanzania and East Africa are amongst the lowest globally, coinciding with strong appetite for new regional sources of supply.

Figure 2. Phosphate fertiliser use (kg)/ hectare of cropland ${ }^{5}$


[^2]
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This announcement is authorised for release by the Company's Chief Executive Officer and Executive Chairman.

## Bardin Davis

Chief Executive Officer

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[^0]:    ${ }^{1}$ See announcement ‘Final Drill Results Received from the Ngualla Rare Earth Project (15 Feb 2012)
    ${ }^{2}$ See announcement 'Major High-Grade Fluorspar Discovery' (20 Mar 2024)
    The company confirms that at this time it is not aware of any new information or data that materially affects the information included in these announcements

[^1]:    ${ }^{3}$ See announcement ‘Critical Minerals Exploration Presentation' (11 April 2024). The company confirms that at this time it is not aware of any new information or data that materially affects the information included in the announcement

[^2]:    ${ }^{4}$ See announcement 'Phosphate Bioavailability Test Results' (26 Feb 2024)
    ${ }^{5}$ Food and Agriculture Organisation of the United States

