

**NEWS RELEASE 18-21** 

September 5, 2018

## CHATHAM ROCK PHOSPHATE RECOGNISES RARE EARTHS IN ROCK PHOSPHATE AND ESTABLISHES PACIFIC RARE EARTHS LIMITED

**WELLINGTON** New Zealand – Chatham Rock Phosphate Limited (TSXV: "NZP" and NZAX: "CRP" or the "Company") is pleased to announce that it has recently formed a 100% owned subsidiary **Pacific Rare Earths Limited**.

This company has been formed to project-manage a work programme aimed at quantifying the extent, value and recoverability of Rare Earths Elements (REE) and other potentially strategic or valuable minerals contained in the rock phosphate nodules on the Chatham Rise.

In addition, the company will be investigating the existence and recovery potential of rare earths and other valuable minerals in seafloor muds on the Rise.

## Rare Earths in phosphate

A recent study of marine phosphate nodules by the United States Geological Survey reveals that there are significant quantities of REE contained within the phosphate nodules on the Chatham Rise. Of the 17 recognised rare earths, 15 are present in Chatham Rise rock phosphate nodules, as well as varying concentrations of other valuable minerals including nickel, cobalt, chromium, vanadium, zirconium, fluorine and strontium. Collectively these minerals, if they can be efficiently extracted as by-products, represent not only an immensely strategic asset for New Zealand but could significantly improve the already attractive forecast project economics.

The presence of these minerals within the phosphate rock is highly significant because the contained value may be released onshore (if extraction proves feasible and economically viable) without any change to the proposed mining system, and without any additional environmental impacts in the Project area.

## Rare Earths in seafloor muds

Shareholders will recall that we established and announced some time ago that there were significant quantities of rare earths and other valuable minerals in the seafloor muds in our permit area. These include cerium, lanthanum, neodymium, praseodymium, yttrium, cobalt, rubidium, cesium, germanium, gallium, strontium, thallium and tungsten.

The primary challenge associated with the production of rare earths from the muds is the extraction process, and the advancement of processing technology that will be required in order to demonstrate the feasible and economically viable separation of any of these minerals. In addition, recovery of rare earths from muds will involve the development of a new marine mining system, and therefore will be considered for development separately from the existing CRP rock phosphate nodules project.

## **Further Independent Research**

The information CRP already holds about REEs and other valuable minerals in its permit areas was generated by independent organisations, with some of this work undertaken up to a decade ago. The current knowledge confirms that REEs occur over a wide area, and estimates of the average grades and therefore the size of the potential deposits have been made at a conceptual level. The current conceptual information, when assessed against current price data, confirms the significance of potential value.

As a result of the extremely favourable preliminary research, CRP has commenced a dialogue with appropriated skilled and funded external parties, based both in New Zealand and internationally, in order to further develop better upstanding of the extraction and recovery potential of the minerals.

CRP is excited to be engaging in the investigation of REE recovery, which is a strategic priority of the New Zealand Government in relation to the mineral sector, as recently stated by the Honourable Dr Megan Woods, Minister of Energy and Resources.

The Chatham Rise rock phosphate and rare earths deposit has the potential to contribute to the understanding of REE potential in New Zealand, given that it is likely that there is more information already available about the REE minerals in the Chatham Rise deposit than any other rare earths deposit in New Zealand.

CRP expects to be in a position to release more information on this exciting initiative in forthcoming months.

For further information please contact

Chris Castle
President and Chief Executive Officer
Chatham Rock Phosphate Limited
64 21 55 81 85 or <a href="mailto:chris@erpl.co.nz">chris@erpl.co.nz</a>

Neither the Exchange, its Regulation Service Provider (as that term is defined under the policies of the Exchange), or New Zealand Exchange Limited has in any way passed upon the merits of the Transaction and associated transactions, and has neither approved nor disapproved of the contents of this press release.