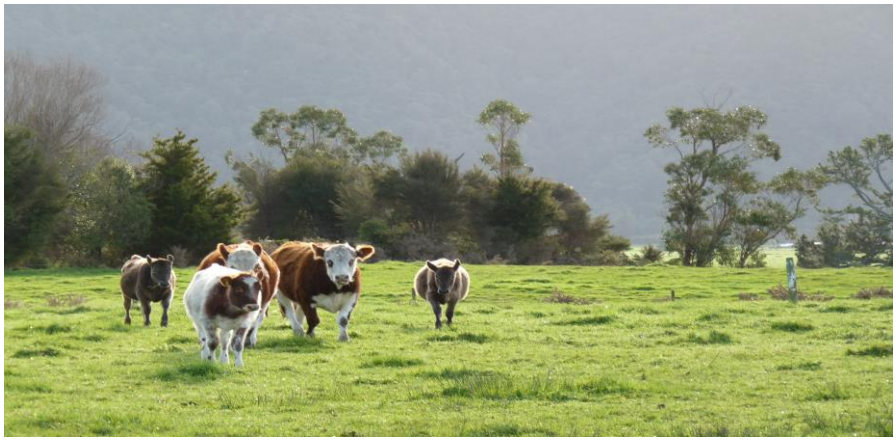
Chatham Rock Phosphate™



Update

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Chatham Rock Phosphate summarises recent events and milestones

Chatham Rock Phosphate (NZ: CRP, TSX.V: NZP) ("CRP" or "the Company") provides a further shareholder and stakeholder briefing. In this issue we will cover:

- Recent Food Safely announcement
- Ngati Mutunga Accord
- Chatham joins World Oceans Council
- Financing News
- Permit Reapplication Process and Trans Tasman Resources
- Chatham Rock Phosphate is an ethical fertiliser source
- Rare earths progress report
- A summary of our environmental, food safety and other benefits

Food Safety Coup

Chatham Rock Phosphate recent advised shareholders of a huge food safety win arising from the ultra-low cadmium levels in our rock phosphate. This has occurred due to a final decision being taken by the European Parliament and the European Council to limit the sale of phosphate-based fertilizers containing high levels of heavy metals everywhere in the EU from 2022 and to introduce voluntary green labelling for fertilizers with less than 20 mg Cd/kg P_2O_5, starting this year.

The decision is aimed at improving the safety and sustainability of agriculture in Europe, as well as reducing risks to human health and the environment around the world.

The decision of the European Council is the final step to establishing the cadmium limit in phosphate-based fertilizers across Europe. EU-wide cap on cadmium levels will come into full effect in 3 years.

As the EU ban on high cadmium levels has arisen due to food safety concerns, it would be logical to assume that similar restrictions will occur in other regions. There have been voluntary restrictions in place in New Zealand for many years.

A number of European countries as early as the 1980s already recognised the importance of this issue and unilaterally introduced strict cadmium limits for fertilizers. Limits are currently in place in 21 EU countries, with the strictest in Switzerland, which limits cadmium to 21 mg/kg P2O5 in 1986, Sweden (44 mg / kg P2O5), the Netherlands (31 mg/kg P2O5), Hungary and Slovakia (20 mg/kg P2O5) and Finland (22 mg/kg P2O5).

The good news for Chatham Rock Phosphate shareholders is that cadmium levels in Chatham Rise rock phosphate are among the lowest in the world. Our phosphate rock, located on the Chatham Rise seabed east of New Zealand shows an average of 2.2 parts per million.

Rock phosphate is already the scarcest of the three fertiliser constituents used to sustain world food and primary sector production. And if world-wide sales restrictions are placed on the estimated 95% of that resource affected by excessive cadmium levels the likely effect on the market value of the remaining 5% of traded phosphate rock (and its producers) can only be imagined. Our deposit could likely become a very strategic asset indeed.

Ngati Mutunga Agreement

In April Chatham Rock Phosphate executed an Information Sharing and Collaboration agreement with Ngāti Mutunga O Wharekauri AHC (Ngāti Mutunga).

Ngāti Mutunga is a wholly owned subsidiary of Ngāti Mutunga o Wharekauri Iwi Trust, based on the Chatham Islands and has a significant interest in protecting the Chatham Islands marine environment and securing the economic, social and cultural well-being of the Chathams community.

CRP holds a mining permit to extract rock phosphate from an offshore area located on the Chatham Rise (the Project).

Following discussions between Ngati Mutunga and Chatham the purpose of the agreement is to formally collaborate on the Project with a view to:

- Developing a CRP Marine Consent application that meets the environmental, economic, social and cultural objectives of both Parties individually and together;
- In the event that the content of such an application is mutually agreed, to formally support the lodging of the CRP Marine Consent application for approval;
- In the event that the CRP Marine Consent application is successful, ensuring that all operations implemented under that consent are carried out in in a manner that best mitigates environmental effects and respects indigenous rights, beliefs and customs to protect the interests of the Chatham Islands community; and
- Ensuring that the Chatham Islands community realises tangible benefits from the Project.

The first objective is to arrange close engagement with the Chathams community to ensure that the Project proceeds in a form that satisfactorily addresses both the reasonable concerns and aspirations of that community. The agreement will be a success if it results in formal community support for the Project. If mutually agreed ways of addressing reasonable community concerns and aspirations cannot be found then the terms of the agreement will no longer apply.

Ngāti Mutunga is proposing to make a significant future investment in Chatham Rock Phosphate if the agreement proceeds and the Marine Consent is obtained. In those circumstances Ngāti Mutunga and other Chatham Island interests including the Chatham Island Enterprise Trust would receive options that are in total equal to 15% of the number of shares on issue at the time a Marine Consent that has their support is granted. The exercise price of these options would reflect and recognise the accumulated investment made to that date by our shareholders.

Chatham joins World Oceans Council

In January this year Chatham Rock Phosphate continued to build on its commitment to responsible marine mining by joining the World Ocean Council (WOC), the international business leadership alliance for "Corporate Ocean Responsibility".

It's a reality that key minerals such as phosphate are critical to human survival and marine sources for phosphate will play an increasingly important role as terrestrial sources become depleted and the procedures and technology for responsible extraction are developed.

The WOC provides a unique global industry platform for responsible marine mining operators to collaborate and to engage with other ocean industries and stakeholders on responsible use of ocean resources.

Financing News

Chatham has raised a further $700,000 during 2019 by means of two private placement initiatives and intends to raise further funds this year to continue to progress the marine consent reapplication once the way forward is clarified (see below).

A very wide range of fund sourcing options is being systematically worked through and at the time of writing it's presently looking more likely that this funding could come from a major corporate player in a relevant industry.

Marine Consent Reapplication Process

As previously advised, a scoping review was undertaken in 2018 by independent advisers and our project director. It was intended to be reviewed by independent experts retained by the EPA and the feedback from that review (a significant milestone) would provide Chatham with guidance on the content of the final application.

However, the outcome of the Trans Tasman Resources court case, and the subsequent counter appeal, are very relevant to the way in which our application will be framed. To clarify, neither possible outcome of the counter appeal will be a show stopper for Chatham, indeed once that is known it will be a much clearer and better defined pathway going forward. Hence the temporary parking of our application in order to optimise the effectiveness of the reapplication and to minimise the related cost.

As previously advised to shareholders, preparation of that application is expected to take at least a year, involving updates to a large number of supporting scientific reports and the likely need to gather more environmental data from the permit area. However, this next stage in the process cannot start until we have raised further capital and obviously achieving that objective is our number one priority.

Chatham Rise Rock Phosphate Contribution to Water Quality Objectives

The Government has announced an intention to achieve a noticeable improvement in water quality within five years and released a blueprint to improve freshwater quality.

This is an issue Chatham Rock Phosphate has highlighted for several years, as we have a proven, very effective solution to the problem. In 2012 we provided detailed briefing notes on this to the then Minister for the Environment and said:

Chatham Rise rock phosphate, being a direct application fertiliser, offers the solution to run-off into waterways as a range of scientific studies over many years has shown direct application rock phosphate offers strong environmental benefits.

CRP has evaluated studies comparing the use of rock phosphate and super phosphate on New Zealand and international farmland. They show when applied directly reactive rock phosphate (RPR) is both a highly effective sustained release fertiliser and resistant to leaching.

The findings of the studies – some of which go back several years – are supported by Dr Bert Quin, probably New Zealand's pre-eminent expert on the use of rock phosphate as a fertiliser, who first conducted extensive field trials while working as a scientist for government agencies during the 1980s.

Dr Quin believes nutrients continue to enter waterways from agricultural land simply because of the type of fertilisers we use. He says the traditional fertilisers used in New Zealand have been single superphosphate ('super'), which supplies phosphorus (P) and sulphur (S), and urea for nitrogen (N).

He says their biggest problems are that they are 'leaky' fertilisers.

"Super is prone to run-off of applied phosphorus into waterways in the weeks after application, leaching into shallow sub-surface drains and water bodies on dairy farms, and being leached right through soils with low phosphorus retention such as those in Northland and the West Coast. Urea is prone to volatilisation (evaporation) losses as ammonia gas to the atmosphere, nitrate leaching and nitrous oxide GHG emission.

"By far the most cost-effective option for phosphorus is reactive phosphate rock or 'RPR'. This is a natural mineral, formed on the sea floor originally, which is a very effective source of sustained-release phosphorus, ideal for maintaining high-producing pasture and extremely resistant to leaching.

Dr Quin estimates switching from super phosphate to RPR and blends of RPR and high analysis P (TSP, MAP and DAP) would reduce average run-off losses of P into waterways by 80-90%.

Dr Quin's company is importing RPR from Algeria, and welcomes a variety of low cadmium content true RPRs becoming available to NZ farmers.

Chatham Rise project offers an ethical and secure local source of rock phosphate

In recent months there has been considerable publicity concerning the controversial importation of West Sahara phosphate rock by Ballance and Ravensdown.

Western Sahara has been disputed since 1975, when Morocco claimed it as part of the kingdom and the Polisario fought a guerrilla war for the Sahrawi people's independence.

Both New Zealand fertiliser manufacturers source a large part of their phosphate rock supply from that area, so the implications for farmers and the economically important agriculture sector are serious. Agriculture sector exporters including Fonterra and the meat companies will be increasingly required to certify that their products were produced using only ethical inputs.

Ballance and Ravensdown both continue to maintain they have no acceptable alternative source of supply despite there being a number of other rock phosphate sources overseas and, right on their doorstep, there is of course Chatham Rise rock phosphate. Our rock has been tested by both co-ops during the last decade and hence they are well aware of its properties.

Rare Earths Progress Report

Chatham is still in a dialogue with both local and overseas parties concerning research projects aimed at separating valuable by-products (including rare earths) contained within the sandy seafloor matrix that contains the rock phosphate deposit. Research will also investigate the feasibility of extracting rare earths also contained in the rock phosphate nodules. 15 of the 17 known rare earths are present in these nodules.

Successful recovery of even a small proportion of these by-products could add significantly to our revenue and profitability and also establish a strategic ocean-floor asset for New Zealand.

A summary of our Environmental, Food Safety and other Benefits

You can and should be our advocates whenever our project is raised in conversation. To remind you why the Chatham Rise project remains hugely important for New Zealand, here are the key reasons:

- ✓ Our rock is a proven reactive phosphate rock. Using it results in much less run-off into waterways and an improved soil profile compared with the effects of manufactured fertilisers.
- ✓ It's also an organic fertiliser with no additives being added and with the only processing being grinding and possible pelletisation
- ✓ It also contains ultra-low levels of cadmium, a cancer-causing heavy metal with much greater concentrations in other rock phosphate deposits
- ✓ Being locally sourced and needing to be applied less frequently results in much lower carbon emissions (in effect increasing the present NZ electric vehicle fleet from 10,000 to 29,000 vehicles)
- ✓ The environmental footprint of seabed extraction is much smaller than the impact of onshore phosphate on local communities overseas
- ✓ The rock is within one day's sailing distance and supply is far more secure (and more ethical) than phosphate rock imported from unstable regions on the other side of the world
- ✓ The project economics are attractive and Chatham will pay significant royalties and income taxes
- ✓ The project will generate new jobs in environmental monitoring, on the mining ship, in the home port and in the science and agricultural sectors
- ✓ Chatham Rock phosphate has been independently demonstrated to be as effective as other phosphate fertilisers used in New Zealand. The omission (most recently demonstrated in recent media reports) of the two fertiliser co-ops to even acknowledge its existence is hard to understand as using our product would provide them with a green fertiliser alternative that would naturally complement their other fertiliser products.

See also our online interactive infographic at http://www.rockphosphate.co.nz/projectinfographic

Regards

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