

<b>KEY NUMBERS</b>	<table> <tr> <td>Present Project Value</td> <td>NZ \$34 m</td> </tr> <tr> <td>Estimated local resource</td> <td>25 m/t in most intensively sampled 380 km<sup>2</sup> area</td> </tr> <tr> <td>Licence area</td> <td>4,276 km<sup>2</sup></td> </tr> <tr> <td>Average phosphate content</td> <td>20-24% P<sub>2</sub>O<sub>5</sub></td> </tr> </table>	Present Project Value	NZ \$34 m	Estimated local resource	25 m/t in most intensively sampled 380 km <sup>2</sup> area	Licence area	4,276 km <sup>2</sup>	Average phosphate content	20-24% P <sub>2</sub> O <sub>5</sub>
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<b>SUMMARY</b>	<p>The Chatham Rise, off the east coast between the South Island and the Chatham Islands within New Zealand's territorial waters, hosts economically significant deposits of rock phosphate nodules lying on or just below the surface of the seabed in shallow waters.</p> <p>Rock phosphate the key ingredient of fertiliser and can be applied directly to pasture. The phosphate deposits on the Chatham Rise could supply New Zealand's agricultural requirements for at least 30 two decades at current rates of usage.</p> <p>Extensive exploration and scientific research in the 1970s and 80s helped delineate the deposit. Meteoric increases in the value of rock phosphate recently, coupled with significant advances in offshore extraction technology mean it is now economically feasible to extract this resource.</p> <p>Chatham Rock Phosphate Limited holds the prospecting rights, awarded by the New Zealand Government, over an area of approximately 4,276 km<sup>2</sup>. The prospecting licence was awarded on 25 February 2010 for an initial term of 2 years with a right to apply for a further two years. The company also has the priority rights to apply for a mining licence after meeting exploration work programme obligations. Current work includes developing extraction options with the preferred dredging company partner Royal Boskalis Westminster, environmental data collection and completing financing to the stage of a commercial production decision. This will be followed by bulk sampling, mining recovery system design, and all project approvals, a comprehensive trial mining programme and a definitive feasibility study.</p>								
<b>GEOLOGY AND HISTORY</b>	<p>Extensive phosphate (P<sub>2</sub>O<sub>5</sub>) deposits occur along 400 km of the crest of the Chatham Rise at water depths of 400 m or less. The phosphate is formed in nodules typically 10 – 40 mm and occur in a layer up to 70 cm thick, within a sandy bed. Nodule concentration is greatest between 179° and 180° E longitude where an average of 66 kg per square metre exists.</p> <p>The deposit was formed 7-12 million years ago and was discovered by New Zealand scientists in 1952 and then subsequently investigated by various private companies and government researchers from 1975 to 1981 at an estimated cost of NZ\$71 million. Extensive sampling and dredging trials conducted during this period and the data collected means the deposit is now extremely well defined. The area of most intensive sampling occurred over an area of 380km<sup>2</sup> where a resource of 25 m/t exists.</p>								
<b>THE MARKET OPPORTUNITY</b>	<p>Virtually all rock phosphate used by the New Zealand fertiliser industry (approximately 1 m/t a year) is imported from Morocco whose state-owned company OCP controls world trade and drove dramatic rises in world prices from US\$40/tonne to a peak of nearly US\$500 in 2008.</p> <p>Rock phosphate is the primary constituent of most fertilisers manufactured and distributed in New Zealand and can be applied directly to pasture. Ministry of Agriculture trials in the 1980s showed direct application of rock phosphate can be more effective than super-phosphate for pasture growth and with fewer environmental impacts from runoff. Price drivers for rock phosphate are increased requirements to support production of food in developing economies, greater productivity required from reduced land availability and production of suitable vegetation for bio-fuel production.</p> <p>Extraction of the Chatham Rise phosphate could provide a locally produced alternative to the Morocco sourced imports. It would enable the agricultural sector to be shielded from fluctuations in foreign exchange, lower high transport costs and reduce the carbon footprint. It would also provide a</p>								

	new export opportunity to other markets in this area of the world reliant on imports from Morocco.
<b>EXTRACTION SYSTEM</b>	Advances in marine mineral extraction technology since the last investigations of the Chatham Rise deposit have substantially improved the economics of extraction which is now routine in shallow seas around the globe. The project has selected a company to partner with, Royal Boskalis Westminster, which has outlined an extraction concept using an extension of existing technologies.
<b>PROJECT ECONOMICS</b>	Project economics are based on extracting and delivering the rock phosphate for significantly less than the imported cost of a comparable product. Several production scenarios have been considered, one of which assumes production levels of 100,000 – 300,000 t in years one and two, 500,000 – 750,000 t in years three and four and 1 million – 1.5 million/t by year five.
<b>VALUATION</b>	Two independent reports (Simmons Corporate Finance and McDouall Stuart Corporate Finance) support a current management project valuation of \$34 million.
<b>ENVIRONMENT</b>	Chatham Rock Phosphate is acutely aware of its responsibilities to conduct both mineral prospecting and extraction of rock phosphate, in a manner seeking to minimise impact on the environment. The National Institute of Water and Atmospheric Research (NIWA) – a New Zealand Government research institute, and other environmental consultants have been engaged to assist the project’s environmental objectives of ensuring our activities cause minimal disruption to the marine environment. NIWA has previously conducted several investigations on the Chatham Rise including the mapping of various habitats, and we are using expert knowledge to gather the appropriate baseline environmental information, assess the likely impacts from activities and thereby provide a level of data required to make informed decisions. As a matter of good business and a desire to be successful in our project objectives, integration of environmental considerations in all stages of project planning is a standard process. The project will adopt the environmental guidelines stipulated in the International Marine Minerals Society <i>Code for Environmental Management of Marine Mining</i> .
<b>WIDER BENEFITS</b>	<p><b>New Zealand owned and controlled:</b> The project’s owner holds 100% of the licence area estimated to contain a 20-year supply of rock phosphate for the New Zealand market</p> <p><b>Known costs and technology:</b> Mining concept studies indicate an extension of existing technology can extract the resource from the seabed for much less than the cost of buying it and importing it from Morocco</p> <p><b>Economic benefits:</b> This project could significantly reduce New Zealand’s exposure to foreign exchange risk while improving its balance of payments position by reducing imports and/or generating export earnings.</p> <p><b>Environmental benefits:</b> The phosphate can be applied directly, is more effective than super-phosphate and very low in cadmium. The technologies used will minimise seafloor disturbance, there will be a lower carbon footprint through reduced transport requirements, and extraction will intermittently affect a total footprint of less than 1/1000<sup>th</sup> of the Chatham Rise seafloor.</p>
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