

## **Chatham Rock Phosphate – an example of a sustainable development of seabed mineral resources while minimising the environmental impact and using ground breaking technology**

C D Castle, R A Wood, R K H Falconer, CJ McKenzie, R Grogan

Chatham Rock Phosphate Limited

Head Office, Level 1, 93 The Terrace, Wellington CBD, NZ 6011

[www.rockphosphate.co.nz](http://www.rockphosphate.co.nz)

[chris@crpl.co.nz](mailto:chris@crpl.co.nz)

### **Abstract**

A deposit of phosphate nodules is on the Chatham Rise approximately 450 kilometres to the east of New Zealand. The deposit contains sufficient rock phosphate to supply New Zealand's phosphate fertilizer needs for at least 20 years. It was first investigated commercially 50 years ago by Global Marine, followed by JBL Minerals in the early 1970's. NZ and German government research and industry groups then took it up again, with major field programs in 1978 and in the early 1980s.

Due to difficult global and local economic conditions the project ground to a halt in 1984. The project was resurrected in 2007 when Chatham Rock Phosphate applied for a prospecting licence. This was granted in 2010 and a successful subsequent mining permit approval followed in 2013. The initial application for the separately required environmental permit was declined in February 2015.

The picture has changed significantly since Chatham's initial application was declined in March 2015.

Changes have occurred in terms of, how the application will be prepared, the EPA's operating procedures, helpful changes to the governing Act, legal precedents, relevant environmental issues, particularly water quality, evolving health and safety standards, and phosphate rock ethical supply issues.

Further, Chatham now has the support of the local iwi (Maori tribe) who will be most affected by our operation. This is unprecedented in New Zealand.

These changes in combination strongly support the logic of reapplying for the environmental permit.

**Keywords:** Marine Mining, Boskalis, rock phosphate, carbon emissions, cadmium, reactive phosphate rock, water quality, Ngati Mutunga

## **Chris Castle**



Chris Castle is the founder and CEO of TSX.V, NZAX and Frankfurt listed Chatham Rock Phosphate.

He is also managing director of associate company Aorere Resources Limited, whose business is the seed capital financing and subsequently listing of early stage resource projects.

He has been an independent director (since 2000) of Vietnam based and TSX.V listed Asian Mineral Resources Limited and was both a director and chairman of ASX listed King Solomon Mines based in Inner Mongolia.

He has been involved in minerals projects since 1975. His mining and mineral exploration background includes projects with Amoil NZ, Kanieri Gold Dredging, Vaaldiam Resources, and Australian Anglo-American.

Chris is a chartered accountant with 43 years' experience in investment and corporate finance.