

MINES, PLANTS & PROJECTS

GREENLAND: BlueJay Intends to Begin Mining Ilmenite at Pituffik in 2018

Greenland, with a land area of 217 million hectares, most of which is permanently ice-covered, and a population of merely 56,000, has never been renowned for its mining industry. As part of the Danish empire, Greenland was closed for foreign trade between 1776 and 1950. In June 2009, Greenland gained a limited form of independence, but it remains a self-governing autonomous region within the Kingdom of Denmark.

In October 2013, the Greenland Parliament voted to remove a long-standing ban on the development of the country's uranium and rare earth mineral deposits. In fact, the Government is quite keen to promote mining as a means of diversifying the economy away from over-reliance on fishing and as a possible pathway towards securing Greenland's independence as a fully functioning sovereign state.

Mr Mute Bourup Egede (Greenland's Minister of Mining) recently noted that the country has been mining and exporting small quantities of gold and olivine for many years and that ruby, anorthosite and lead/zinc mines are about to start up. He added that permits for the titanium minerals project of BlueJay Mining plc could be granted fairly quickly.

Back in 1984, Artikel's first book on the TiO₂ value chain (*ISBN 0903199793*) reported: "It has long been recognised that the northwest coast of Greenland, notably between Dundas and Thule, is a potentially rich source of titanium minerals. The earliest reports date back to 1915.

Black sand placer deposits occur in raised beaches, at a maximum elevation of 40 metres above the present sea-level. Investigations at the University of Copenhagen have revealed that sand samples from this region contain up to 90% ilmenite, by weight. The major problems in establishing a commercial-scale operation in this part of the world are of course its remoteness, the complete absence of infrastructure and the severe environmental conditions that would have to be faced so far inside the Arctic Circle."

BlueJay Mining acquired a 12,600 hectares lease on the Pituffik property, which lies within the "Thule black sands region" about 10 years ago.

The property is located on the Steensby Land peninsula and is centred on the abandoned former settlement of Moriusaq in northwestern Greenland. With the extension of the Pituffik lease to include land beneath coastal waters, it now covers a total area of 15,000 hectares.

Local infrastructure has been considerably improved since 1984, partly thanks to the proximity of the US Airforce Base at Thule (also known as the Pituffik military airport) and partly thanks to the new civil airport at Qaanaaq, established in 1991. Qaanaaq (a.k.a. New Thule), with a population of just over 650, is the nearest town to Pituffik, being about 80-85 km to the north. There are also deepwater port facilities here, mainly serving the US Airforce Base.

On 22 May 2017, the Geological Survey of Denmark & Greenland published its findings on titanium mineral deposits located in the Dundas province. Commenting on these findings, Mr Roderick McIllree (Managing Director of BlueJay Mining) said: "The Dundas titanium province is a new concept in the raw materials community. BlueJay has tenure over the natural pathway to the development of this newly identified titanium province through Pituffik and has the first-mover advantage in this exciting region. This area has now been demonstrated to host a combined total of up to 17 billion tonnes of pure ilmenite both *in situ* and available as naturally liberated primary ilmenite, with up to 700 million tonnes of ilmenite potentially occurring on our licence area. Whilst these numbers are non-JORC (i.e. not yet confirmed in accordance with international standards), we are internally confident that the Dundas province, which is analogous to the early-stage identification of the West Pilbara iron ore province, will be seen for its true potential in the coming decades."

BlueJay Mining (formerly known as FinnAust Mining) was originally sponsored by Western Areas Ltd. (headquartered in Perth), which is best known as Australia's largest nickel mining company. FinnAust Mining was founded in May 2010 as a 75:25 joint venture between Western Areas Ltd. (of Perth) and Magnus Minerals (of Tampere, Finland). +continues

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GREENLAND: Govt. Geological Survey Estimates 17 bn Tonnes of Ilmenite in Dundas - continued

Western Areas had and still has a wide-ranging portfolio of non-ferrous metal interests in Western Australia and Canada. Its three Finnish prospects – Hammaslahti (copper, zinc and gold); Outokumpu (copper); and Kelkka (nickel) – were transferred to FinnAust.

The three Finnish prospects are essentially deposits that had been previously mined prior to the late 1990s. FinnAust Mining was originally founded with the principal objective of utilising concepts and technology that had been developed in Australia for reworking metal sulfide deposits.

In December 2013, FinnAust Mining completed a £stg 7.7 million reverse takeover of Centurion Mining, a company that already had a listing on the London Alternative Investment Market (AIM), coupled with a public offering of shares. FinnAust effectively inherited Centurion's AIM listing, as well as its Mittelberg (Austria) copper venture. Also, as a consequence of the new fund-raising, Western Areas' stake in FinnAust was reduced from 84% to 60%.

In December 2015, BlueJay Mining (the original Pituffik mining lease owners) signed a binding agreement with FinnAust Mining, as result of which FinnAust acquired a 60% controlling stake in BlueJay Mining. At the same time, Mr Roderick McIlree was confirmed as the new Managing Director of FinnAust, having joined the company as Interim Chief Executive in July 2015.

Previously, Mr McIlree, together with Mr Jeremy Whybrow, had founded Greenland Minerals & Energy in 2005, with the main objective of developing the Kvanefjeld uranium and rare earth deposits near the southern tip of Greenland.

As a result of further fund-raising exercises by FinnAust, Western Areas allowed its stake in the company to be further diluted, down to 37% by end-June 2016. Since then, Western Areas has reduced its stake still further.

On 10 March 2017, FinnAust announced that it had exercised its option to buy-out the

minority shareholders in BlueJay Mining and FinnAust then promptly changed its name to BlueJay Mining plc. The company's corporate office is in London and its operating head office is located at Outokumpu (450 km northeast of Helsinki).

As at mid-May 2017, the major shareholders in BlueJay Mining comprise: Western Areas Ltd. (18.8%); Mr Roderick McIlree (Managing Director, 12.85%); Mr Jeremy Whybrow (12.78%); and Mr Gregory Kuenzel (a non-executive director, 5.28%).

Towards the end of April 2017, BlueJay Mining gave a presentation to potential investors, highlighting the five target areas of the Pituffik project, spread across 80 km of coastline. They comprise:

- # Raised beaches, 30 km long x 1 km wide, with ore containing over 20% ilmenite, medium-grade and tonnage.
- # Active beaches in the tidal zone, 30 km long x 100 metres wide, with ore containing over 50% ilmenite.
- # Drowned beaches in the shallow marine zone, 30 km long x 3 km wide, with high-grade mineralisation down to more than 30 metres.
- # Beaches abutting Moriusaq Bay, with low-medium tonnages of very high-grade ore.
- # Deltaic deposits of the Interlak River, with large tonnages of ore, typically containing 15% ilmenite. Deltaic deposits from the Interlak drainage area are the major source of all mineralisation at Pituffik.

The company's maiden resource statement, covering only about 17% of the total licence area, showed an inferred resource of 23.6 million tonnes of ore within a volume of 11.2 million cubic metres, i.e. at a density of 2.12 tonnes per cubic metre. The average grade was 34.5% total heavy minerals, containing an average 12.0% TiO₂. The *in situ* ilmenite resource exceeds 2 million tonnes. +continues

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GREENLAND: BlueJay to Focus Initial Efforts on Moriusaq Bay Ilmenite Deposits - continued

This includes a high-grade zone at Moriusaq Bay, where the resource is estimated at 7.9 million tonnes, containing 14.2% ilmenite. That means 1.12 million tonnes of ilmenite *in situ*. This area is the focus of the company's feasibility study which is currently underway.

Also, a larger exploration target of 90-130 million tonnes of ore, containing 6.3-8.4% ilmenite, has been identified.

BlueJay Mining declared: "We are gearing up towards production in 2018." The agenda for this year includes: completing the feasibility study;

finalising environmental impact assessment and social impact assessment reports; producing proof-of-concept bulk samples of finished ilmenite product; and seeking licences to operate.

Mr Peter Waugh (who was with Huntsman Pigments, Tioxide and predecessor companies for 24 years) and Mr Bruno Cavalancia (who was with Kenmare for five years, following 20 years with Rio Tinto Iron & Titanium) have been retained as technical and marketing consultants to BlueJay Mining.

SRK Exploration Services will provide resource estimation and geological advice. Royal IHC (of Sliedrecht, Netherlands) will provide advice and cost estimates for mining in the shallow marine environments at Pituffik. Orbicon and NIRAS (both headquartered in Denmark) are carrying out the environmental impact and social assessment studies respectively.