

Test work produces two ilmenite products
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19 September 2017

Bluejay Mining plc ('Bluejay' or the 'Company')

Metallurgical test work produces two, high specification, ilmenite products

Bluejay Mining plc, the AIM and FSE listed company with projects in Greenland and Finland, is delighted to provide an update on metallurgical process developments and product specifications for its ilmenite products from its flagship Pituffik Project in Greenland ('Pituffik').

- Further optimisation of wet gravity and dry magnetic circuits has led to a step change in anticipated process efficiency
 - o Due to the unique mineralogical characteristics and high heavy mineral grade the metallurgical flow sheet is now both simple and flexible
- Production of two homogeneous and consistent grade ilmenite ores suitable for sulphate pigment as well as for sulphate and chloride slag production can now be demonstrated at large scale:
 1. A Standard Ilmenite product with composition that compares favourably with other similar high iron(II) oxide ('FeO') ilmenite products:
 - o typical titanium dioxide ('TiO₂') content of 46% and FeO content >38% that is readily soluble in low strength sulphuric acid at high process

efficiency

- o low levels of key impurity chromium(III) oxide ('Cr₂O₃') at 0.06% and Vanadium(V) oxide V₂O₅ at 0.35%
- o radioactive elements below detection limits

2. A Premium Ilmenite product that has all the attributes of the Standard Ilmenite Product plus favourable low alkali (magnesium oxide ('MgO') and calcium oxide ('CaO')) content that ensures suitability for chloride slag production. Typical key composition shown below:

TiO ₂	46.5%
FeO	39.2%
SiO ₂	0.71%
CaO	0.15%
MgO	0.78%
U	10ppm
Th	10ppm

- Run-of-Mine (ROM), Heavy Mineral Concentrates (HMC), Standard Ilmenite and Premium Ilmenite samples and specifications have now been shipped to potential customers. Further samples will be made available for interested customers in Q4 in addition to the bulk samples being collected and shipped from the current programmes underway in Greenland.

Bluejay CEO Roderick McIlree said, "This project continues to surprise me by its continued upside. We have proven Pituffik's ability to produce a premium, but more importantly homogenous product derived by a very efficient, simple and cost-effective process. I would like to commend our metallurgical team on the identification and design of what is an elegantly simple and very cost-effective flow sheet, which strongly positions us for commercial production.

"We can now definitively design and cost the project with these essential items in place and with the continued advancement of the environmental and social work programmes we can expect an exploitation licence application placed in the next few months. Such a simple process will reduce the required capital expenditure while keeping operating costs low. Furthermore, this

process plant is easily expandable due to the modular nature of the process."

IHC Robbins Test Work

The objectives of the test programme were to develop and improve on a conceptual process methodology and to confirm the ability to efficiently produce an ilmenite product with 1.0% SiO₂ and low levels of CaO and MgO at larger scale.

Figure One: Pituffik metallurgical schematic separation process

Figure 2 Wet Concentrator Plant

Figure 3 Magnetic separation circuit

All the process components; spirals, up current classifier, and dry magnetic separators use existing off-the-shelf technology and consist of well recognised equipment currently in operation in the mineral sands industry. This process is modular and is expandable as required on short time scales.

Next steps

Process design is now confirmed and will be optimised to suit the mining plan once fully defined. Completion test work will include confirmatory process trials of larger batches of ROM ore to give more Premium Ilmenite and Standard Ilmenite. These will be used for customer acceptance tests. This signals the end of test work and process design and now enables the completion of design engineering that will determine capital expenditure and subsequent operating costs.

Market Abuse Regulation (MAR) Disclosure

Certain information contained in this announcement would have been deemed inside information for the purposes of Article 7 of Regulation (EU) No 596/2014 until the release of this announcement.

****ENDS****

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Notes

Bluejay is dual listed on the London AIM market and Frankfurt Stock Exchange and primarily focussed on advancing the Pituffik Titanium Project in Greenland into production in 2018. Pituffik has been proven to be the highest-grade mineral sand ilmenite project globally, with an initial Inferred JORC resource of 23.6Mt at 8.8% ilmenite (in situ), including a high-grade zone equal to 7.9Mt at 14.2% ilmenite. Crucially significant further upside remains, as the resource forms part of a larger exploration target for the tested area of between 90Mt to 130Mt at an in-situ grade of between 6.3% and 8.4% ilmenite. Furthermore, the resource area covers just ~17% of the raised beach area - one of three main target areas situated along an >40km coastline:

- Raised beaches; containing ilmenite accumulations over widths of more than 1km, of unknown depths, along more than 30km of coastline;
- Active beaches; which refer to the area seaward of the frontal dunes, including the beach, tidal zones and surf zone; and
- Drowned beaches; refers to the areas seaward of active beaches.

The Company's strategy is focused on the production of a bulk sample "proof of concept" from the Pituffik Project in 2017 with the aim of securing an offtake partner and commencing commercial production in 2018 in order to create a company capable of self-funding exploration on current projects and future acquisitions.

Bluejay holds two additional projects in Greenland - the 194sq km Disko-Nuussuaq ('Disko') Magmatic Massive Sulphide ('MMS') nickel-copper-platinum project ('Ni-Cu-PGM'), which has shown its potential to host mineralisation similar to the world's largest nickel/copper sulphide mine Norilsk-Talnakh, and the 107sq km Kangerluarsuk Sed-Ex lead-zinc-silver project ('Kangerluarsuk'), where historical work has recovered grades of 41% zinc, 9.3% lead and 596 g/t silver and identified four large-scale drill ready targets. Bluejay intends to conduct a high-powered, ground based, electromagnetic survey at Disko in Q4 2017 for the purposes of identifying optimum drill site locations for the possibility of drilling during 2018.

The Company also has a 100% interest in a portfolio of copper, zinc and nickel projects in Finland. This multi-commodity portfolio has been restructured to be cost-sustainable whilst determining the best plan for future development.

Qualified Persons

The information in this press release that relates to Mineral Resources is based on information compiled under the direction of Dr Mike Armitage C Geol., C Eng., who is a Member of the Institute of Materials, Minerals and Mining which is a Recognised Overseas Professional Organisation ('ROPO') included in a list promulgated by JORC from time to time.

Dr Armitage is a full-time employee of SRK Consulting (UK) Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code) and for the purposes of the AIM Rules. Dr Armitage has reviewed this press release and consents to the inclusion in the press release of the matters based on his information in the form and context in which this appears.

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