

Strategic Metals & Rare Earths Letter

INTERNATIONAL

the independent information and advisory publication on investing in Strategic Metals & Rare Earths

Special Situation – May 2018 Update

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BlueJay Mining Plc (GBp 23.50)

AIM	: JAY
Frankfurt	: S5WA
H+L prices (12 months)	: GBp 27.50 – 11.50
Net issued shares	: 848.8 million
Market capitalization	: £ 199.5 million (US\$ 274.9 million)

2018 price target: GBp 35.00

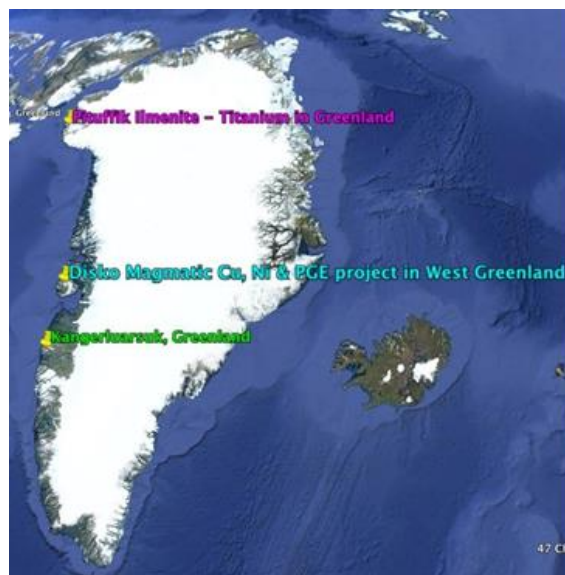
Company profile

BlueJay Mining's ("BlueJay") primary focus is the 100%-owned 150 sq. kilometre high-grade **Dundas Ilmenite (Titanium) Project** (formerly Pituffik Titanium Project) in northwest Greenland, on which a potentially large and pure ilmenite occurrence was discovered. The Project has an independently confirmed potential to be in the top percentage of titanium projects globally in terms of grade.

On April 23, 2018, BlueJay announced a 400% increase in resources to **96 million tonnes at 6.9% ilmenite (in situ)**.

With all current work programmes now nearing completion, BlueJay is preparing an application for an exploitation licence of **Dundas** to extract ilmenite, as primary source of titanium metal.

On October 13, 2017, BlueJay announced that a Feasibility Study was commenced at **Dundas** and is expected to be completed during Q2, 2018. This will form part of the exploitation licence application that is expected to be approved in the second half of 2018.



In September 2016, **BlueJay** announced that the Greenland Mineral and Safety Authority has granted approval for a Social Impact Assessment Programme (“SIA”) as well as the associated Term of Reference (“TOR”) for Dundas.

As part of the application process for an exploitation licence, the Company is required to submit a SIA and an Environmental Impact Assessment (EIA) describing the potential impacts and planned mitigation measures for the Projects construction, operation and closure.

Flagship Project

➤ **Dundas Ilmenite Project – northwest Greenland**



The **Dundas Ilmenite Project** was originally discovered in 1915. Results to date indicate a unique expansive titanium deposit >30 kilometre long, 3-5 kilometres wide and in places more than > 25 metres thick. There are 5 distinct placer deposits of primary ilmenite now identified, including:

- Raised beach - ilmenite accumulations over widths of >1 metre along >30 kilometres of coastline with average grades to date of $\pm 20\%$ ilmenite >50% in areas
- Active beaches – 50 metres either side of mid tide line, >30 kilometres long and > 1 metre deep, with average grades to date of >50% ilmenite
- Drowned beaches – large volume ilmenite- bearing sediments located in less than 10 metres of water, expected to be very high-grade ilmenite
- Moriusaq Bay – a low-medium tonnage area with average grades of $\pm 50\%$ ilmenite (up to 90% in areas)
- Interlak Delta – deltaic deposits from the Interlak drainage area, which are the primary source of all sediments at Dundas. These have an extremely large tonnage potential at a grade of $\pm 15\%$ ilmenite

Moriusaq Bay



Iterlak Delta



► 400% increase in resources confirms Dundas' highest-grade ilmenite project in the world

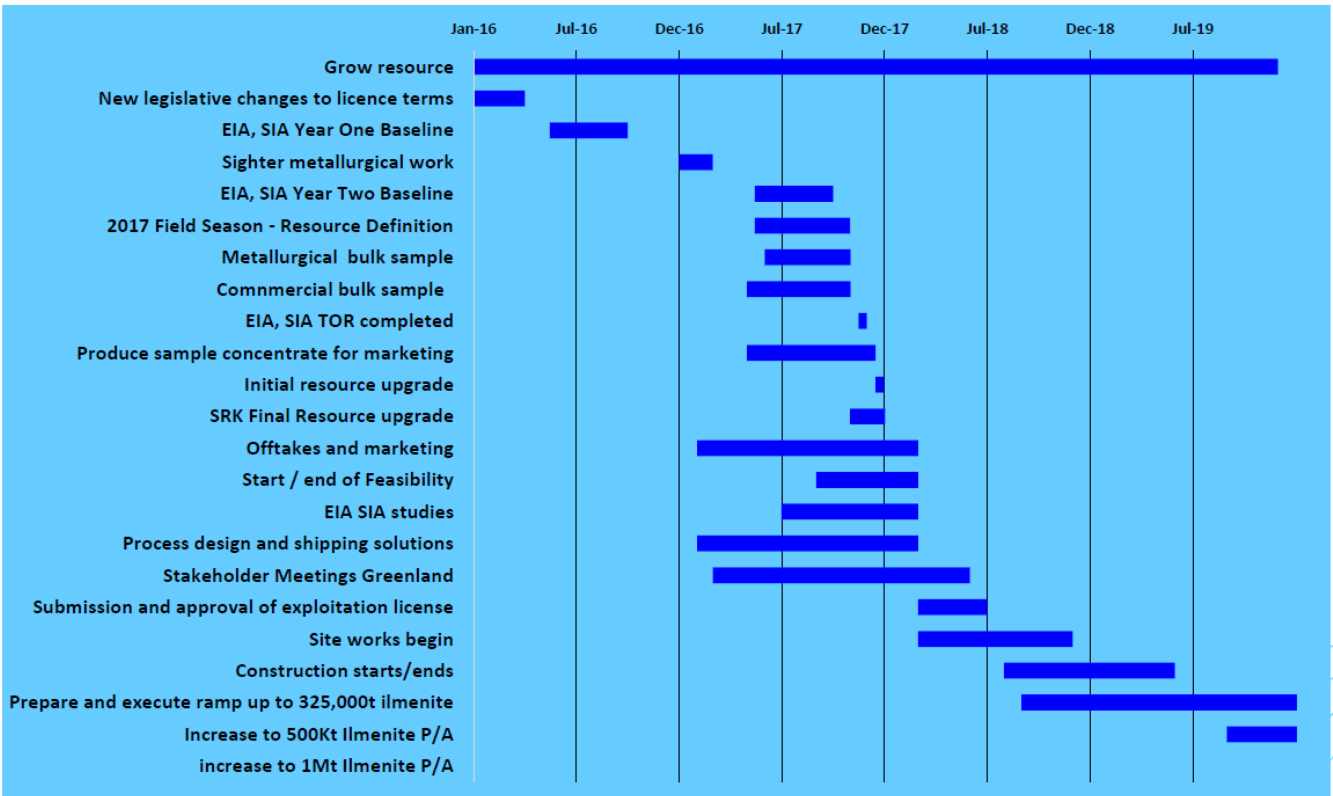
On April 23, 2018, **BlueJay** announced an undated JORC compliant Mineral Resource Estimate and significant resource upgrade for the **Dundas Ilmenite Project** which confirms Dundas as the highest-grade mineral sand ilmenite project globally, whilst highlighting the Project's significant commercial and strategic value.

The highlights are:

- Total resources identified to date at Dundas now sit at **96 million tonnes at 6.9% ilmenite** (in situ). An increase of some **400%** on the maiden resource announced in April 2017.
 - Resources comprised of the following;
 - **Indicated Mineral Resources** at Moriusaq equal to 81 million tonnes at 6.1% ilmenite in situ.
 - A detailed breakdown of the indicated Mineral Resources at Moriusaq can be seen in the table below;
 - **Inferred Mineral Resources** of;
- 7 million tonnes at 12.2% ilmenite (in-situ) at Interlak East, a newly identified area ~15km east of Moriusaq
 - 7 million tonnes at 9.2% ilmenite (in-situ) surrounding the Moriusaq indicated resources and,
 - 1 million tonnes at 6.1% (in-situ) at Interlak West
 - A newly identified additional Exploration Target over the Interlak Delta of between **20Mt and 60Mt at between 6% and 10%** ilmenite (in-situ).
 - Also underway is an assessment of the shallow marine area where potential for additional resources is being evaluated. Results will be announced in due course.
 - Opportunity to upgrade the in-situ grade by up to 30% via a simple oversize separation step prior to processing, further enhancing run of mine (ROM) grade and project economics.
 - Results clearly indicate the strong possibility of a large and long-life operation with obvious expansion potential.

The results matched **BlueJay's** best internal expectation of size and grade for the indicated resources of **Moriusaq**; the surprise of 2017 was the realization that **Interlak**, where mineralization is found in raised beaches and the delta, appears to host similar sized zoned with much higher grades (2017 result from Interlak was 77% ilmenite in situ on the raised beach), which says that if high grades continue as they did during 2017, **Dundas** could quickly become unique amongst all known deposits.

TIMELINE TO DEVELOPMENT



WHAT IF THIS IS THE WORLDS LARGEST TITANIUM PROVINCE

Geological survey of Denmark and Greenland (GEUS) conducted a regional analysis of the titanium rich basalts and sediments at Dundas during 2017

Summary of calculated ilmenite

The preferred tonnages ilmenite calculated for the Steensby Land Sill Complex in southern Steensby Land include:

1. Ilmenite contained in sills prior to erosion: 17 Gt
2. Ilmenite remaining in sills after erosion: 10 Gt
3. Ilmenite available for sedimentation 7 Gt

Total ilmenite deposited at Moriusaq derived from sills and dykes north of Moriusaq is estimated at between **500 to 1100 million tons**.



Other projects

BlueJay holds two additional projects in **Greenland**, the **Disko-Nuussaq Magmatic Massive Sulphide nickel-copper-platinum project** and the **Kangerluarsuk Sed-Ex lead-silver project**.

The Company also has a 100% interest in a portfolio of copper, zinc and nickel projects. In **Finland**.

On December 2017, **BlueJay** announced that it has completed its maiden 2017 field work programme at the 100%-owned **Disko Nickel, Copper, Cobalt & Platinum Project** in West Greenland.

Primary objective of the work programme was to identify drill targets. Work focused on southern licence area, Area 1 – the **Kugg Project**,

Survey sampling confirms sulphide system with initial chemical assays in oxidized surface material returning 0.2% nickel, 0.8% copper, 0.2% cobalt.

Handheld XRF sampling returned values averaging between 6-9.3% nickel and 1.5-2.8% copper.

Data compilation and interpretation for Area 2 – the **Illuq Project**, located on the northern peninsula, continues.

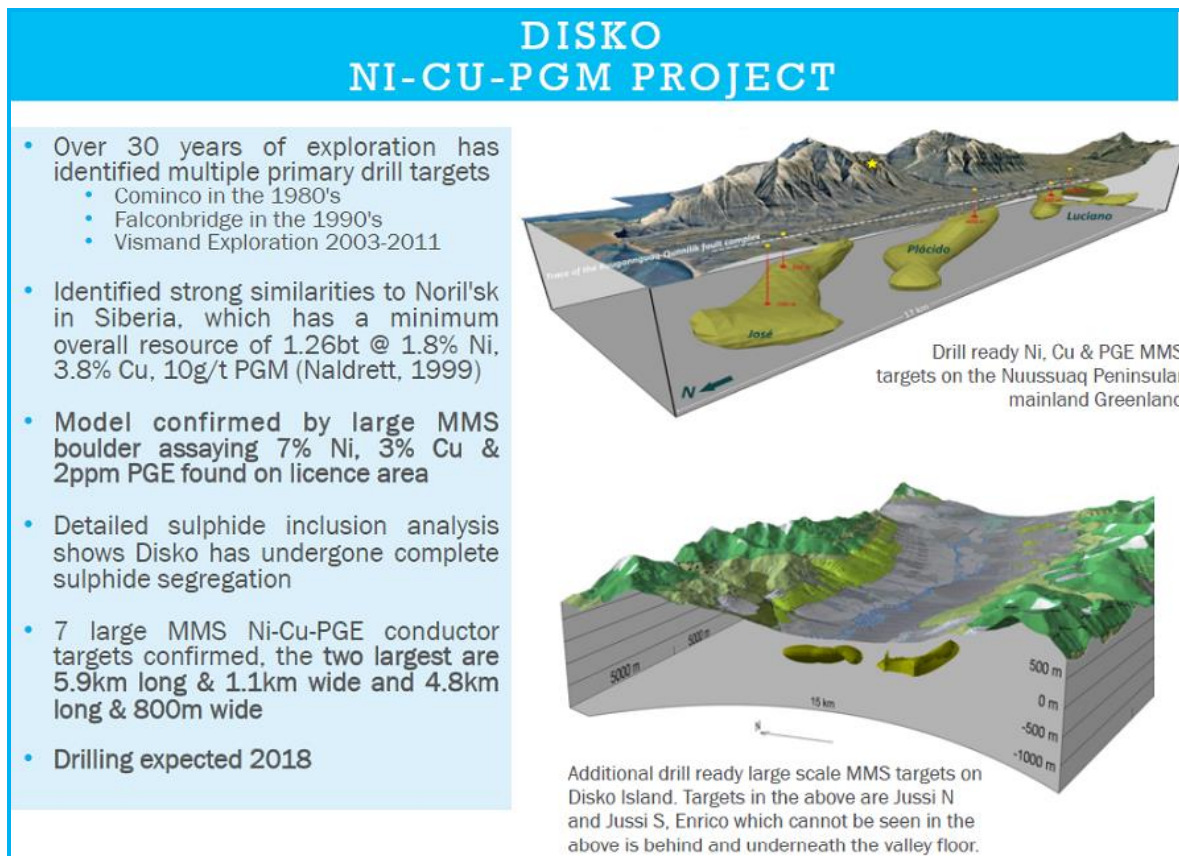
This work has already identified numerous additional targets, as well as confirming historically identified anomalies.

Additional large coincident gravity, magnetic and conductor anomalies were identified in the new licence areas.

► Next exploration stage

Results from 2017 exploration work together with historical data will continue to be assessed in the coming months to refine targets for future exploration work.

A standalone exploration programme is planned for 2018 to advance project under standing in the Company's recently enlarged licence area, now comprising 970 km².



KANGERLUARSUK SEDEX LEAD-ZINC-SILVER PROJECT

- Located in a major Palaeo-Proterozoic sedimentary basin with abundant Pb-Zn showings and distinctive SedEx style mineralisation (Pb-Zn) exposed around the basin margin
- Situated 20km north of the Black Angel Pb-Zn mine in a geologically favourable, starved sub-basin
- Previously drilled by Cominco then RTZ
- Historical results include 41% Zn, 9.3% Pb and 596 g/t Ag (20oz's of silver/tonne)
- 2 large scale drill ready SedEx targets located in favourable topography.
-
- Drilling expected 2017

➤ Avannaa Polymetallic assets

In January 2017, **BlueJay** announced the Greenland Government approval with respect to the acquisition of Avannaa Exploration, which has two advanced projects in southwest Greenland.

The two newly acquired projects are: the 194sq km **Disko-Nuussuaq ('Disko')** Magmatic Massive Sulphide ('MMS') nickel-copper-platinum project ('Ni-Cu-PGM') and the 107sq km **Kangerluarsuk Sed-Ex lead-zinc-silver project ('Kangerluarsuk')**.

Disko has been the subject of more than US\$ 50 million of technical work by blue chip mining houses over multiple decades including Cominco (1980's), Falconbridge (1990's) and Vismand (2000's). The Disko project has 7 anomalies identified for drill testing, the larger of which are up to 5.9 km long 1.1 km wide and 600m thick. MMS occurrences have been identified in the Disko licence area with the largest being a 28t boulder that assayed 6.9% nickel ('Ni'), 3.7% copper ('Cu'), 0.6% cobalt ('Co') and 2 g/t PGM's.

The presence of massive sulphide is significant as it proves sulphide segregation has taken place and provides a direct analogy with Norilsk-Talnakh ('Norilsk'), the world's largest nickel/copper sulphide mine with global resources of >2 billion tonnes containing 14.5 Mt of nickel, 23.8 Mt of copper, and 8.1 Kt (approximately 285moz) of PGM.

Kangerluarsuk was originally discovered and later drilled by Cominco with further work undertaken by RTZ. Historical results include 41% zinc, 9.3% lead and 596 g/t silver. There are currently 4 large-scale drill ready Sed-Ex targets located in favourable topography. The Company is evaluating several low-cost options that may lead to testing of these targets during 2017.

➤ Finland assets

In Finland, **BlueJay** owns 3 high-grade, multi-element base metal deposits: Hammaslahti Copper Project, Kelkka Nickel-Copper Project, Outokumpu Copper Project.

Two of the projects, Hammaslahti and Outokumpu are located in a prolific geological belt which includes the well-known Outokumpu Copper mine and other high-grade copper and gold deposits.

The Finnish assets are "cost sustainable" for the long-term.

Finance

On February 2, 2018, **BlueJay** announced that it has conditionally raised £ 17 million (US\$ 24 million) via a placing of 77,172,728 new ordinary shares at a placing price of 22 pence per new share.

The funds raised will primarily support **BlueJay** in its rapid advancement of the **Dundas Ilmenite Project** in Greenland, as it commences to fast track the Project into production.

The Company will use the net proceeds of the equity funding raising to continue development of Dundas towards commercialization. This will include:

- Commencing procurement of long lead items to support mine plant construction and supporting infrastructure
- Completing EIA (Environmental Impact Assessment) and SIA (Social Impact Assessment) targeted for spring 2018
- A priority mining area resource statement due in coming weeks, feeding into the mining study. Complete mineral resources estimate expected Q2 2018
- **Finalising the pre-feasibility study, targeted for Q2 2018**
- **Completing the exploitation application and lodgement in Q2 2018; approval anticipated Q4 2018**
- Facilitating offtake and marketing as well as other general activities.

In addition, part of the raising will be used to:

- Undertake 2018 work programme at **Disko** to further progress the Nickel, Copper, Cobalt & Platinum Project in West Greenland, following maiden 2017 field work.
- Fund general working capital and maintain interests in wider project portfolio, including Finnish polymetallic assets.

► Management comments:

Raising 17 million offers a clear path to advance **Dundas** towards production. As the Project has already been proven to be the highest-grade ilmenite (**titanium**) asset in the world, with a sample processing route and highly strategic location that could see **Dundas** to be in the lowest quartile production costs, **BlueJay** has great confidence in its commercial potential.

The funds will support the Company in its objectives of commencing production, resource expansion, feasibility studies, licencing applications and mine construction, many of which are due for completion in the coming months.

Alongside this, whilst **Dundas** remains **BlueJay**'s primary focus, further upside is available via its wider portfolio. **Disko** has shown its potential to host large-scale Nickel, Copper, Cobalt and Platinum in West Greenland accumulation and accordingly the Company is keen to further its understanding of this through targeted exploration work.

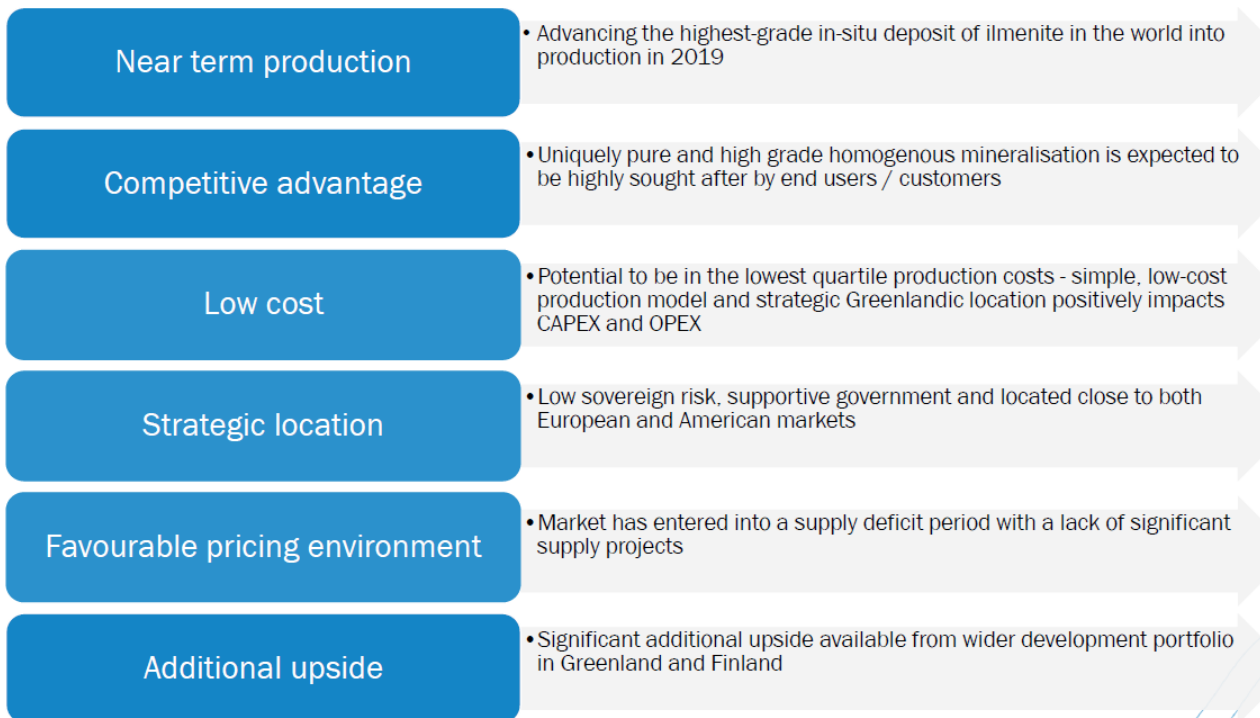
Additional funding

On February 9, 2018, **BlueJay** announced that Prudential PLC has increased its stake in the Company from 9.8% to 12.2%.

On March 15, 2018, **BlueJay** notified the issuance of 43.78 million shares for proceeds of £ 10.63 million to ING Group, Netherlands at a price of 24.30 pence per share, representing an equity interest of 5.16%.

BlueJay maintains a current cash flow of more than £ 15 million.

INVESTMENT CASE



Management and Board

Rod McIlree - Managing Director, has more than 20 years of experience operating in both the resources and financial sectors. Having worked initially as an exploration geologist for global mining houses he migrated to the financial / advisory side of the industry where he worked extensively as a mining analyst, then later as a corporate adviser to listed exploration and mining companies with projects across a broad spectrum of commodities and countries. Mr. McIlree was a key member of the teams responsible for several successful mining companies with assets in frontier jurisdictions, including but not limited to, Medusa Mining, Anvil Mining, and Kingsrose Mining. He was the founder and Managing Director of ASX-listed Greenland Minerals and Energy up until August 2014 and is currently a Non-Executive Director of AIM-listed Noricum Gold.

Graham Marshall - Non-Executive Chairman, has spent over 25 years as a senior executive in the mining and engineering industries and has held directorships and senior management positions with a number of public and private companies, including ASX-listed Pacific Ore and West Peak Iron. He is currently the general manager-commercial at ASX-listed Western Areas Limited, Australia's class leading nickel producer.

Greg Kuenzel - Non-Executive Director, holds a Bachelor of Business Degree and is an associate of the Institute of Chartered Accountants in England and Wales. He has many years of experience in providing accounting and corporate advice in a diverse range of industry sectors including mining and resource development in the UK, USA and Australia. Mr Kuenzel is currently Chief Executive Officer of Noricum Gold.

Urpo Kuronen - Chief Operating Officer, has worked as a geologist for Outokumpu company in various positions for over 20 years. When Outokumpu closed its office in Sydney in 1992, he was seconded to Mining Project Investors. In 1995 he was appointed as an Exploration Manager of Outokumpu Mining Australia Pty.

Investment recommendation:

Since the acquisition of a 60.37% interest in the **Dundas Ilmenite (Titanium) Project** in December 2015, followed by the Company to go public and since then having multiplied in market valuation from £ 7 million to above £ 200 million, **BlueJay Mining** in the following 2 years has emerged to Greenland's leading mining exploration company by market valuation (see overview below).

Its outstanding position has been strengthened fundamentally by having exercised the option to increase its interest in **Dundas** to 100% and in addition completion of the acquisition of Avannaa Exploration, which has two advanced polymetallic projects.

With all current work programmes now nearing completion, **BlueJay** is preparing an application for an exploitation licence for **Dundas** to extract ilmenite, as primary source of titanium metal. The Company expects the licence to be lodged in the second half of this year and to be followed by a product decision in 2019.

With **BlueJay** already having been included in my 2016 and 2017 Shortlist of Strategic Metals/Special Minerals and REE recommendations and in 2018 again, based on the Company's prospective outlook to further strengthen its position as the highest-grade mineral sand ilmenite producer globally, I have raised my 2018 share price target from GBp 25.00 to GBp 35.00.

GREENLAND-focused listed mining exploration companies

	<i>Trading symbol</i>		<i>April 30</i>	<i>Year-end</i>	<i>Year-end</i>	<i>Change in %</i>	<i>12 months</i>		<i>Market cap.</i>	<i>Market cap.</i>
			<i>2018</i>	<i>2017</i>	<i>2016</i>	<i>Year-end 2016 /</i>	<i>prices</i>		<i>million</i>	<i>million</i>
						<i>March 22,2018</i>	<i>H</i>	<i>L</i>	<i>local currency</i>	<i>US\$</i>
			<i>GBp</i>	<i>GBp</i>	<i>GBp</i>		<i>GBp</i>	<i>GBp</i>	<i>£</i>	
BlueJay Mining	AIM	JAY	23.50	22.75	6.78	247	27.50	11.50	199.5	275.3
Alba Mineral Resources x	AIM	ALBA	0.37	0.41	0.35	6	0.79	0.21	9.1	12.6
			<i>A\$</i>	<i>A\$</i>			<i>A\$</i>	<i>A\$</i>	<i>A\$</i>	
Greenland Minerals & Energy	ASX	GGG	0.09	0.10	0.09	0	0.14	0.08	95.1	72.0
Ironbark Zinc	ASX	IBG	0.05	0.07	0.09	-44	0.10	0.05	31.3	23.7
			<i>C\$</i>	<i>C\$</i>			<i>C\$</i>	<i>C\$</i>	<i>C\$</i>	
Hudson Resources	TSX.V	HUD	0.49	0.43	0.33	48	0.77	0.38	67.0	52.2
North American Nickel	TSX.V	NAN	0.07	0.08	0.09	-28	0.10	0.06	36.0	28.0
Alopex Gold xx	TSX.V	AEX	0.48	0.54	0.58	-18	0.71	0.41	23.6	18.4
True North Gems	TSX.V	TGX	0.01	0.005	0.005	100	0.015	0.005	3.1	2.4

x base metals investments in Ireland and investments in onshore UK oil and gas
xx listed since 13 July 2017

Titanium's corrosion resistance benefits from strong growth in demand for implementation in new technologies



According to the U.S. Geological Survey Commodity Summaries, January 2017, world mine production of titanium mineral concentrates (ilmenite) amounted to 5,860 in thousand metric tons of contained TiO_2 , of which South Africa accounts for 1,280 thousand metric tons, followed by China (800), Australia (720), Mozambique (490), Canada (475) and Ukraine (350).

Roskil Information Services estimates that global titanium melting capacity reached nearly 450,000 metric tons in 2016 (in increase of nearly 100,000 metric tons since 2013), while output has fallen to less than 200,000 metric tons. China and the United States currently have the largest mill capacities, each at around 138,000 metric tons, followed by Russia at 60,000 metric tons and Japan at 50,000 metric tons.

It is estimated that European titanium mill product demand would exceed 30,000 metric tons by 2020, compared with an estimated 28,000 metric tons last year. The EU's aerospace demand for uranium would climb to a projected 25,000 metric tons by 2020, compared with a projected demand of about 16,000 metric tons in 2016.

Ilmenite accounts for about 89% of the world's consumption of titanium minerals. **Titanium** occupies 13% of a US\$ 2 billion aerospace market, which is second to aluminium alloys (44%).

An estimated 73% of titanium is used in aerospace applications. The remaining 27% is used in armour, chemical processing, marine, medical, power generation, sporting goods and other non-aerospace applications.

Titanium is the chemical element used in strong, light, corrosion-resistant alloys. In the beginning, titanium uses were limited within the small confines of its birth place, the aerospace components industrial sector, which still remains accountable for the greatest use of titanium as a mainstream structural metal. However, though this particular demanding industrial niche is strong reliable and capable of sustaining durable demand for suppliers, machining companies and additional funding for titanium resource and development processes, is also has a long cycle of operation.

Airplanes are meant to be reliable and for periods expressed in decades. The entire spans over several years, which led to a thoroughly cycling patterns of titanium consumption. This also influenced prices, especially in the first decades after its entry as a mainstream structural metal.

That is why efforts were concentrated in developing titanium used that would break this cycle patter, through what is known as lateral development.

Because of that, the uses of titanium are growing faster than ever, as more and more new technologies have been discovered and implemented and reduce life cycle costs across a broad range of equipment and processes, though there are competitors in this field such as tungsten carbide.

Titanium has a spectacular titanium corrosion resistance and also has a strong argument for many applications in what it is used for. In many harsh instruments it can outcast competing materials as much as 5:1. Lower failure rates translate to less downtime, reduced maintenance and total lower costs.

One of the titanium uses is in power generating plants, where saline, brackish or polluted waters are used as the cooling medium, in the form of titanium tubing for heat exchanges that will last for the life of the condenser and eliminate the need for a corrosion allowance.

In petroleum exploration and production, titanium tubing light weight and flexibility make it an excellent material for deep sea production risers. In addition, titanium's immunity to attack by seawater makes it the preferred material for the armour of cables and titanium hose clamps used in marine environments. These are usually made using beta alloy titanium wire, which is used on existing platforms in the North Sea and many more projects are in the planning stages.

In the automotive industry, titanium uses were developed especially for components of the vehicle used in motor racing. Engine parts such as titanium connecting rods, wrist pins, valves, valve retainers and springs, rocker arms, and titanium bolts are some of the items for what titanium is