



1 May 2024

Bluejay Mining plc / Ticker: JAY / Market: AIM / Sector: Mining

Acquisition of Sedimentary Hosted Copper Project

Bluejay Mining plc ('**Bluejay**' or the '**Company**'), the AIM, FSE listed and Pink-Market traded exploration and development company with projects in Greenland and Finland, is delighted to announce that an application to expand Mineral Exploration Licence (MEL) 2015-08 covering a portion of the Company's 100% owned Dundas Ilmenite Project ('**Dundas**' or the '**Project**') located in North-West Greenland, to include newly identified high grade sedimentary hosted copper showings has been accepted by the Greenland Mineral Licensing and Safety Authority.

Highlights

- When granted, the proposed enlargement increases the licence area of MEL 2015-08 from its current size of **86 km² to 2,833 km²**
- **Licence expansion comes at no cost**, leveraging existing exploration credits for Dundas and is a result of an extensive data review and analysis beginning in 2019
- The expanded licence area will cover both historic and newly discovered copper showings:
 - o The Cominco Gossan, Wolstenholme Fjord - **1% Cu over 112ft width (34m)** from **outcropping** composite rock chip samples within sedimentary units of the Dundas Formation
 - o Hill 620 Showing, Olrik Fjord - sampling up to 0.83% Cu within 100 m² area
 - o Existing copper showings within the dolerite dykes of the original Dundas licence area
- The Thule Basin represents an area of **significant, underexplored mineral potential**. It hosts the first-order controls required for sedimentary copper deposits and mineralisation is observed within several geological units across the basin. Encouraging ore-grade samples of mineralisation **locally exceeding 10% copper** have been identified
- Bluejay has an established and substantial permanent exploration

infrastructure at Moriusaq, which will serve as a basecamp for activities on the expanded licence area, allowing for cost effective exploration

- **The expanded licence area is proximal to the Camelot Project operated by BHP in northern Canada, illustrating an interest in arctic frontier exploration by the major mining companies**
- The Acquisition comes as part of the Company's **new growth strategy to secure high quality copper and industrial gas projects** whilst continuing to progress Disko to drilling in 2025
- The Company is planning to conduct a 2024 field program consisting of helicopter-supported geological reconnaissance

Eric Sondergaard, Managing Director, commented:

"This acquisition represents a **strategic opportunity** within a region that we already have a dominant footprint. This project has seen very limited systematic exploration for its copper in more than 50 years. This project has been identified as being strategically located for large scale deposits of copper metal. As a demonstration of the teams' capabilities the **Thule Copper will incur virtually no cost to the company over the coming years** due to previous expenditure at Dundas and coupled with our existing exploration camp provides us with unparalleled and dominant access to the entire region. **We note with high interest the endeavours of industry giants like BHP, who are now appearing at scale in the northern latitudes in search of copper.** Copper is seen as remaining in deficit for the next 5 years and we are positioning the Company to take advantage of what will be a highly supportive environment for copper developers. The Thule Copper project represents a massive opportunity for shareholders not just for immediate exploration success, but also as potential for long-term M&A for strategic early movers as these new regions transform into strategic geopolitically competitive hubs. "

Map of Licence Area Applied for

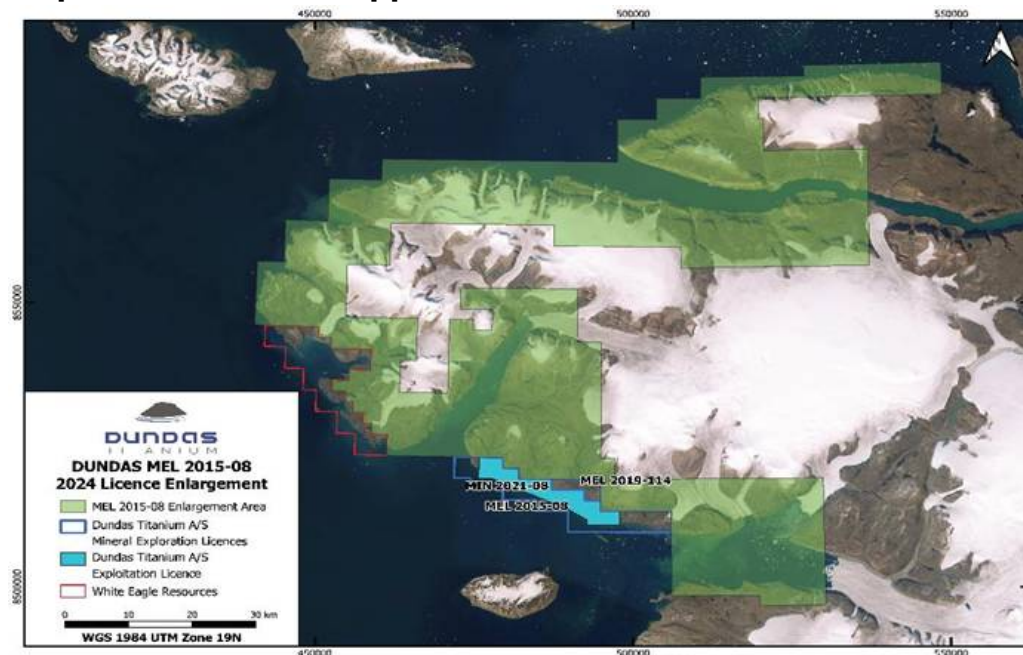


Figure 1. MEL 2015-08 Expanded Application Area

Qualified Person

The scientific and technical disclosure included in this announcement has been reviewed and approved by Roderick McIlree, a director of Bluejay Mining plc, who is also a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM). Mr. McIlree has sufficient experience, relevant to the styles of mineralisation and type of deposits under consideration and to the activity that he is undertaking, to qualify as a Qualified Person ('QP') as defined by the AIM rules, and for the purposes of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. McIlree 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.

Market Abuse Regulation (MAR) Disclosure

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 ('MAR') which has been incorporated into UK law by the European Union (Withdrawal) Act 2018.

For further information please visit <http://www.bluejaymining.com> or contact:

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Proximity to BHP's Camelot Project in Nunavut & Northwest Territories, Canada

The Thule Basin, located near BHP's Camelot Project, reflects a growing interest in mineral exploration ventures within the high Arctic region. This strategic geographical adjacency highlights a broader trend of exploration activities expanding into remote and challenging environments.

Rio Algom Exploration Inc., a Canadian subsidiary of BHP licensed to operate in Canada, plans an early-stage mineral exploration program from 2024 to 2025 across the Queen Elizabeth Islands, Nunavut, and Northwest Territories, all within the continuous permafrost zone. The program targets six potential exploration areas: Melville Island, Ellef Ringnes Island, Amund Ringnes Island, Axel Heiberg Island, and Ellesmere Island, collectively known as the Camelot Project. Field activities including geological reconnaissance, will occur during the 2024-2025 summer season. Additionally, a small acquisition of 1D geophysical data (magnetotellurics and passive seismic stations) is proposed for one Nunavut project area.

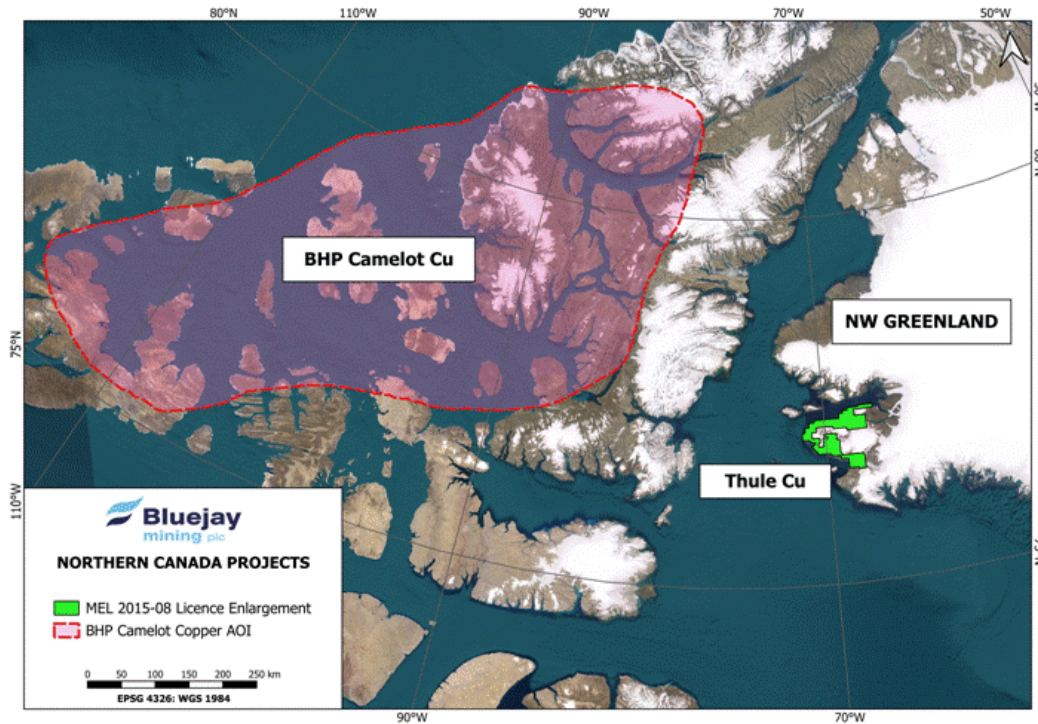


Figure 2. Northern Latitude Project Areas

Notable Mineralisation

Cominco Showing, Wolstenholme Fjord

Discovered by Cominco during a regional exploration campaign in 1975 the "Cominco Showing" is located on the north side of the Wolstenholme Fjord within the Dundas Formation, reduced sedimentary rocks. It lies only 36 km southeast of the Moriusaq exploration camp. An extensive zone of outcropping malachite-azurite mineralisation is present with chalcopyrite-pyrite noted.

Historical sampling (and logging notes) of a sedimentary horizon along the base of the mineralised zone returned results of **34m at 1% Cu** with location notes commenting that the mineralised horizon disappears under ice). **With significant glacial retreat in the last 50 years revisiting this site is expected to yield further continuity of this mineralised layer inland.** The author notes similarities between the showing and the White Pine type copper deposit model and deems the lower part of the Dundas Shale Formation to be favourable for further exploration success (Gill, 1975). **This outcrop has never been followed up and represents a highly prospective starting point for Bluejays sediment-hosted copper exploration.**

Hill 620 Showing, Olrik Fjord

At "Hill 620" on the south side of the Olrik Fjord (55km NE of Moriusaq), an area of approximately 100 square meters and 3m thickness shows malachite-azurite-stained and bleached sandstones and gossans belonging to the Qaanaaq Formation, situated just north of the Itilleq Fault. This site was initially identified by the Geological Survey of Greenland (GGU). Analysis of grab samples returned copper contents between 0.31 and 0.83%. Petrological investigations have identified the presence of chalcopyrite, pyrite, bornite, digenite, and covellite as the primary sulphide minerals. Mineralisation is open along strike where it disappears under cover. GGU publication "Rapport Nr. 90" from 1985 noted the target requires follow up and possible drilling, however, further work was not completed. An EM16 profile was completed across the cropping out mineralisation and indicated "the mineralisation could be more widespread than showing on surface".

Despite these promising findings, no subsequent exploration activities have been conducted. Notably, the mineralisation, characterized by redbed-type copper, a different sub-type of sedimentary hosted copper deposits compared to the Cominco Showing described above. This offers multiple environments for exploration within the expanded licence area.

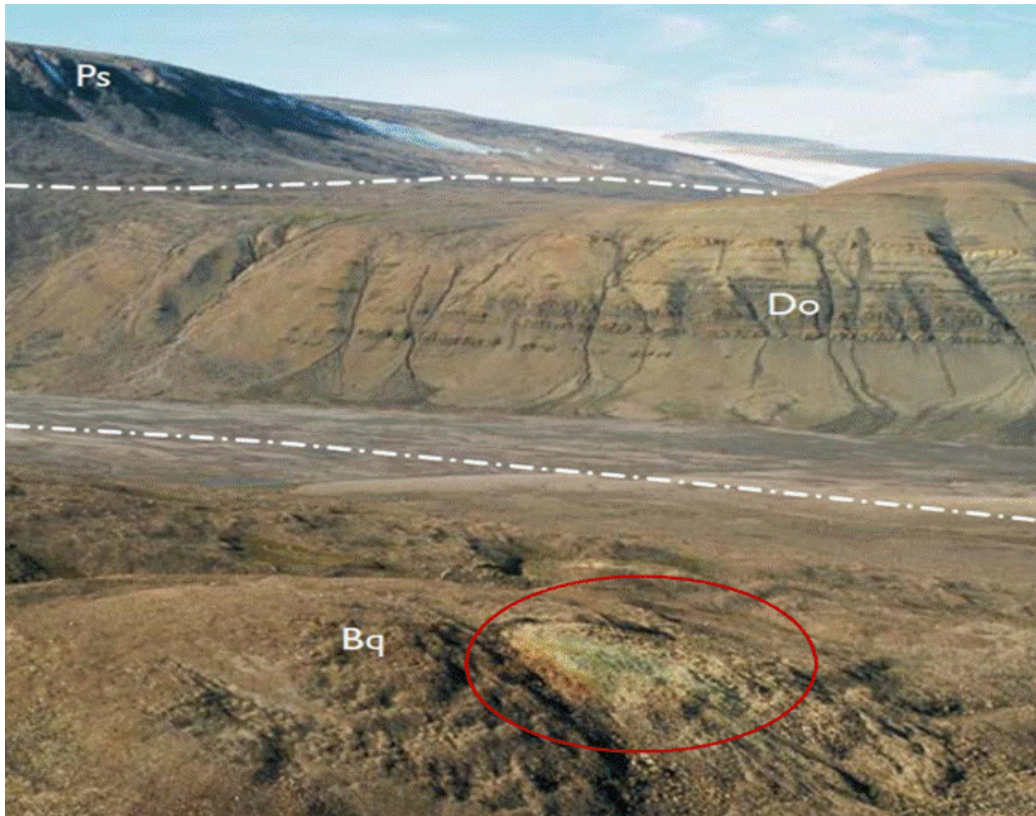


Figure 3. The green zone in the foreground, outlines the "Hill 620 showing" within the Qaanaaq Formation (Bq). The juxtaposition of the Dundas Group (Do) against the basement (Ps) is seen in the background; dotted lines indicate the faults in the Olrik half graben, adapted from Dawes (2006)

Malachite Staining, Existing Dundas Exploration Licence

During investigation of the sill complex immediately adjacent to the raised beaches at the Dundas project, zones of malachite staining were observed. The mineralisation was observed coating fractures and disseminated within the dolerite sills. Preliminary values, using in field portable X-ray fluorescence scanning returned **values up to 7% copper**. These showings represent a possible contact-type mineralisation related to the emplacement of the sills into the reduced sedimentary package. Formation of secondary minerals along fracture surfaces indicates remobilisation of copper, possibly from underlying sulphide mineralisation.



Figure 4. Malachite Staining at Dundas within Ilmenite Rich Dolerite Dykes

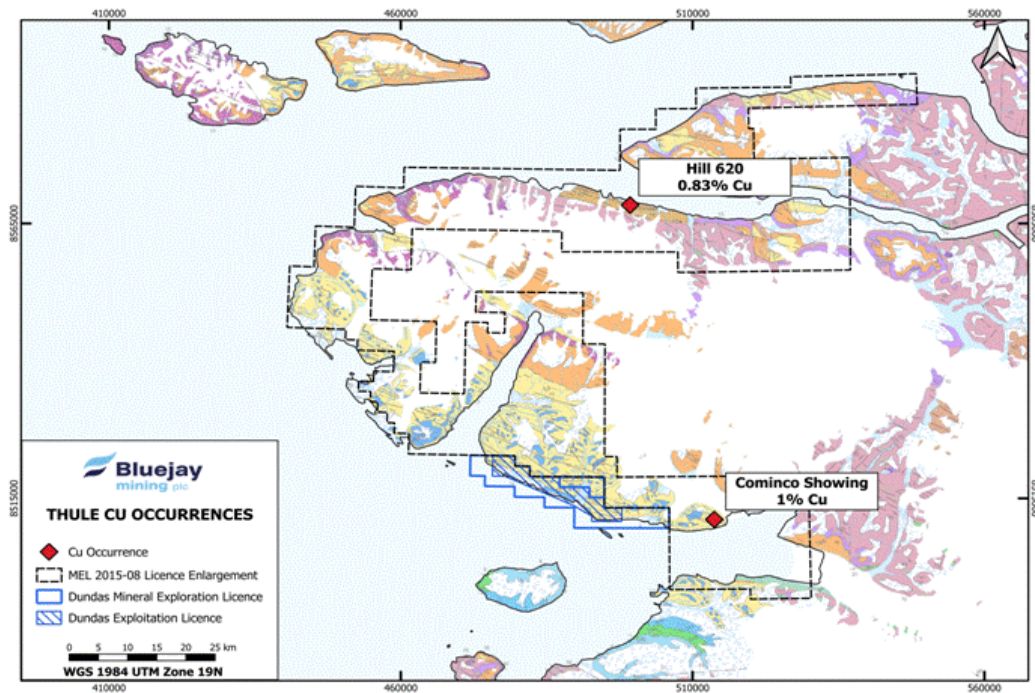


Figure 5. Known Cu Occurrences within Expanded Licence Area

Operational Efficiency

Management and employees of Bluejay Mining have a well-established network and experience of operating in the high arctic environment. A permanent and fully equipped camp facility, located at Moriusaq will be used to service field operations on the newly expanded exploration licence, allowing for efficient testing of historic and newly developed sedimentary copper occurrences. Relationships with stakeholders and service providers will assist in this program and Bluejay will continue to support the local Inuit population with training and employment opportunities, ensuring best practice exploration.

Thule Basin Regional Geology

The Proterozoic Thule Basin (Supergroup) is a 6-8 km thick continental to shallow marine sequence straddling Baffin Bay and Smith Sound. The basin is predominantly preserved in a series of grabens along the coast of NW Greenland, although smaller exposures are also found on eastern Ellesmere Island, Canada. These exposures are preserved in down-faulted areas, with a substantial exposed succession approximately 2300 meters thick, unconformably underlain by a high-grade Archaean-Palaeoproterozoic crystalline shield. Additionally, gravimetric, seismic, and magnetic data suggest an offshore extension of the Thule Supergroup, with estimates indicating a thickness ranging between 8 and 20 kilometres.

Limited prospecting efforts by the Geological Survey of Denmark and Greenland (GEUS), have yielded ore-grade samples of copper mineralisation from several localities within the basin, with reported concentrations exceeding 10% copper (Thomassen and Krebs, 2004). Notably, the annual public mineral hunt program, Ujarassiorit, has returned samples from the Thule Basin with copper values surpassing 10% (i.e., above the upper detection limit of the analytical packages used), indicating the significant mineralisation potential of the region.

Mafic volcanics in the lower portion of the Thule Supergroup, consisting mainly of pyroclastic flows and volcanoclastic units are related to the emplacement of the c. 1270 Ma Mackenzie Large Igneous Province.



Figure 6. Geological map of Northwest Greenland, with outlined extent of the Thule basin (Dawes, 2006).

Stratigraphy of the Thule Basin

Thule Basin architecture remains largely intact. The broad stratigraphy of the Thule Supergroup is well documented and mapped at a scale of 1:500,000 scale. Five recognized groups (Smith Sound, Nares Strait, Baffin Bay, Dundas, and Narssârssuk) comprise the Thule Supergroup, each characterized by distinct lithological units and depositional environments.

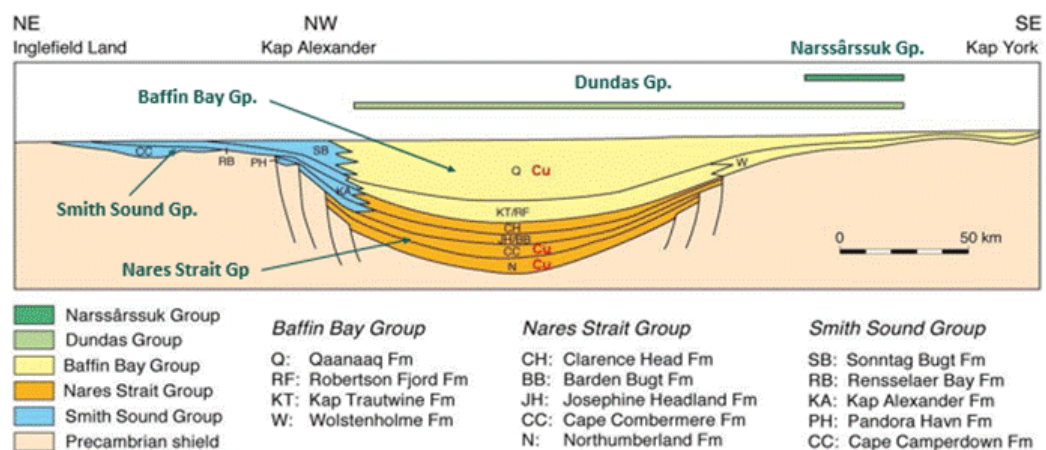


Figure 7. Cross Section through Thule Supergroup. Stratigraphic positions of known Cu occurrences are shown; note that the Dundas and Narssârssuk Groups are more geographically constrained than the Baffin Bay, Nares

Nares Strait Group

The Nares Strait Group represents the lower Thule Supergroup in the central basin, with a thickness of up to approximately 1200 meters and dominated by sandstones, including redbeds, along with basaltic volcanics. Deposition occurred in alluvial plain, littoral, and offshore environments, with formations including the Northumberland, Cape Combermere, Josephine Headland, Barden Bugt, and Clarence Head formations. Notably, it serves as an excellent copper source, with identified copper mineralisation present. Sandstone- and volcanic-hosted redbed type Cu mineralisation has been identified during limited prospecting. The Nares Strait Gp., signifies excellent Cu source rocks at the base of the stratigraphy. also has potential for unconformity-type U mineralisation.

Baffin Bay Group

The Baffin Bay Group, widely distributed in the Thule Basin and adjacent areas, has a thickness ranging from 300 to 1300 meters and is dominated by multicoloured siliciclastics, including sandstones, gritstones, and quartz-pebble conglomerates, interspersed with intervals of shales and siltstones and intruding basaltic sills. Depositional environments of the Baffin Bay Group range from shallow marine to terrestrial. The group outcrops in the central and southern parts of the outcrop belt in NW Greenland, as well as on Ellesmere Island, Canada. Its formations include the Kap Trautwine, Robertson Fjord, Wolstenholme, and Qaanaaq formations, with identified copper mineralisation and potential for unconformity-type uranium mineralisation.

Smith Sound Group

The Smith Sound Group, located at the northern basin margin, has a thickness of up to 700 meters, and is influenced by basin margin faults and underlying paleotopography. Comprised mainly of multi-coloured sandstones and shales, including redbeds, with subordinate stromatolitic carbonates and intrusions of c. 1270 Ma mafic sills, the group reflects a transition from shallow marine to terrestrial depositional environments. Its formations include the Cape Camperdown, Pandora Havn, Kap Alexander, and Rensselaer Bay. Additionally, the Rensselaer Bay Formation presents a complex sequence of multi-coloured sandstones and siltstones, with shale, sandstone, and dolomite dominating different parts of the formation.

Dundas Group

The Dundas Group, estimated to be 1 to 3 kilometres thick, is characterized by interbedded fine-grained sandstone, siltstone, and black shales, along with lesser amounts of carbonate, chert, and evaporitic strata, indicating a shift towards deeper water deposition. Neoproterozoic, Ti-rich mafic sills and dykes, such as the Franklin-Thule dyke swarm dated to approximately 720 - 716 million years ago, are common within the group. These formations are associated with minor occurrences of Cu-Zn-Ba sulphides and the ilmenite-rich heavy mineral sand deposits found on the raised and active beaches of Bluejay's Dundas Ilmenite Project. The Dundas Group consists of the Kap Powell and Olrik Fjord formations. The Kap Powell Formation, characterized by a greater proportion of sandstone in the central part of the basin is overlain by the Olrik Fjord Formation, approximately 400 meters thick, comprising siliciclastic redbed para-sequences with minor interlayered carbonates.

Narssârssuk Group

Lastly, the Narssârssuk Group overlays the Dundas Group in the southern part of the basin, with a thickness ranging from 1.5 to 2.5 kilometres and consisting of cyclic mixed siliciclastic-carbonate strata with evaporites, reflecting tidal deposits in shallow water. Formations within this group include the Imilik, Bylot Sund, and Aorfêrneq formations. Importantly, the group is age equivalent to Nanisivik Fm. (part of the former Society Cliffs Fm.) of the Bylot Supergroup which hosts the Nanisivik Pb-Zn deposit (18Mt @ 9% Zn, 0.7% Pb, 35g/t Ag) on Baffin Island mined by Cominco/Teck.

Sediment-Hosted Cu in the Thule Basin: Mineral Systems Framework

Throughout the Meso- to Neoproterozoic Thule Supergroup, redbed units are prominently featured in its stratigraphical succession. Approximately 20 to 55% of the total stratigraphical thickness in four of the five groups constituting the Thule

Supergroup is estimated to be composed of these redbed successions, contributing approximately 0.5 to 1.9 kilometres to the basin's sedimentary package. Evidence suggests significant fluid/brine activity within the basin, possibly facilitated by block faulting associated with half-graben structures, which could have created fracture-permeability and hydrologic conditions conducive to the formation of redbed Cu-type mineralisation. The distribution of known redbed Cu occurrences within the Thule Supergroup reinforces this association, as they are predominantly located adjacent to major faults (GEUS, 2020).

Despite the lack of previous commercial exploration, all the key components required to form a viable sediment-hosted Cu mineral system have been identified (or can be invoked at a reasonable level of confidence) for the Thule basin from a review of the available data.

- Favourable geological setting (cratonic basin)
- Prolonged depositional history basement Cu endowment
- Source rocks (volcanics, redbed sandstones)
- Evaporates (brine production) energy drivers
- Evidence of leaching/fluid flow
- Structure/fluid pathways
- Host rocks traps/seals
- Existing Cu occurrences recognised

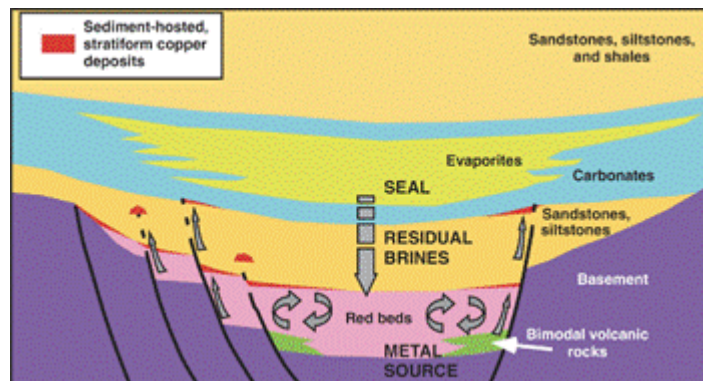


Figure 8. Sediment Hosted Copper Deposit Model (Hitzman et al, 2010)

Geodynamic Environment

Globally, the late Mesoproterozoic was a period of widespread tectonic convergence, culminating in the amalgamation of the Rodinia supercontinent. However, in Laurentia, long-lived orogenesis on its eastern margin was punctuated by short-lived extension that generated the Midcontinent Rift ca. 1110-1085 Ma. Whereas this cratonic rift basin is typically considered an isolated occurrence, new Re-Os depositional ages (Greenman et al, 2021) demonstrate a temporal overlap with multiple cratonic basins in northern Laurentia that also formed during this period - namely, the Bylot Basins and the Amundsen and Hornby Basins, all now located in the high Arctic.

Most paleogeographical reconstructions indicate that during the Late Mesoproterozoic to early Neoproterozoic, Laurentia, which encompassed present-day Greenland, was positioned close to the palaeoequator, approximately ± 30 degrees on either side of the equator throughout the basin's depositional history. This positioning suggests a favourable paleoclimate conducive to sedimentation, carbonate and evaporite production, among other factors.

The Thule basin is situated in the easternmost region of the Bylot basins, spanning NE Canada and NW Greenland, which include the Borden, Aston-Hunting, Fury and Hecla, and Thule basins. This system of late Mesoproterozoic (approximately 1.27-1.0 billion years ago) sedimentary basins coincided the emplacement of the Mackenzie Large Igneous Province, the Ottawa phase of the Grenville Orogeny c. 1090-1030 Ma, and the formation of the Midcontinent Rift. Notably, the Midcontinent Rift hosts economically viable sediment-hosted copper deposits of the same age, such as

Highland Copper's White Pine deposit. Historical production records from White Pine between 1953-1995, reveal extraction of 179.7 million tonnes at 1.14% copper and 7.8 grams per tonne of silver. Presently, the Highland Copper deposit has an indicated resource of 133.4 Mt @ 1.07% Cu and 14.9 g/t Ag and an inferred resource of 97.2 Mt @ 1.03 % Cu and 8.7 g/t Ag.

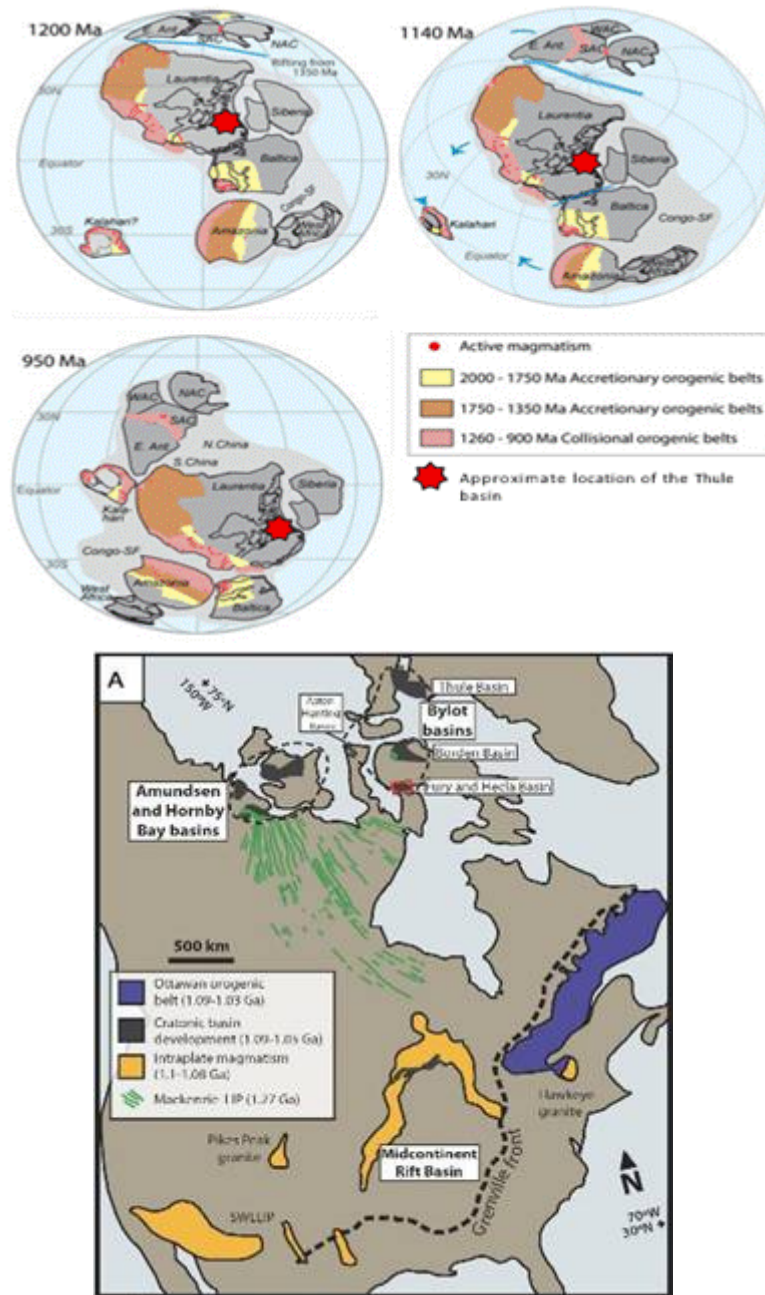


Figure 9. Left: Paleogeography with Thule Basin location adapted from: Roberts et al, 2022. Right: NE Canada and NW Greenland High Arctic Basins (Greenman et al, 2021)

From a global perspective, the late Mesoproterozoic to early Neoproterozoic age range of the Thule basin coincides with various sediment-hosted copper belts worldwide. These include the Central African Copperbelt (Zambia-DRC), the Kalahari Copper Belt (Botswana), the Midcontinent Rift (Canada-USA), and Redstone (Canada).

Although geochronological data is limited, the Thule basin exhibits an extended depositional history, spanning from approximately 1270 to 720 Ma. This prolonged duration is generally viewed as a favourable characteristic for sediment-hosted Cu deposits.

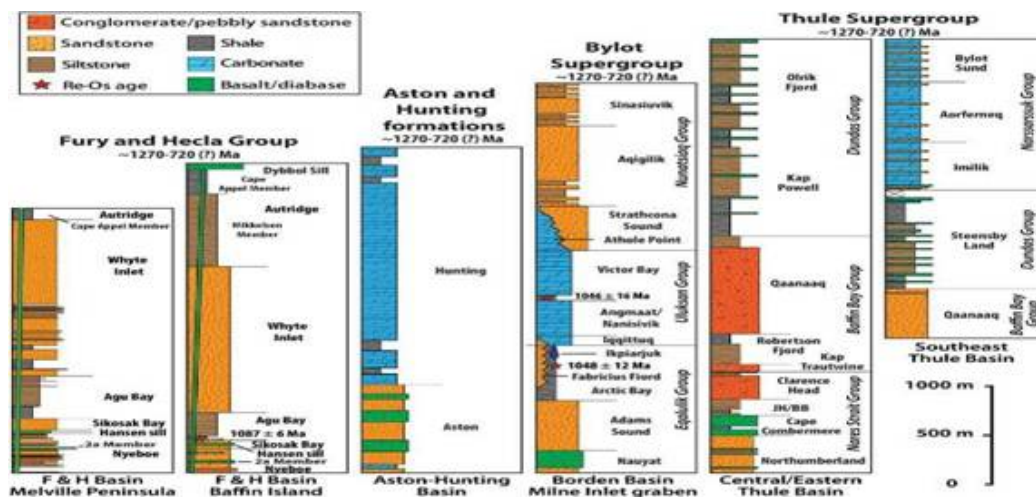


Figure 10. Stratigraphy of Bylot Basins (Greenman et al., 2023)

Studies propose a depositional environment characterized by shallow marine, subtidal to supratidal low-energy sedimentation, resembling modern coastal sabkhas in hot, arid to semi-arid conditions. These conditions, as suggested in several studies, including Dawes (2006) and Kettanah et al. (2016), indicate a high potential for the generation of basinal brines. The intra-cratonic nature of the basin likely contributed to the formation of a hydrologically closed basinal architecture, where highly oxidized and saline, moderate temperature basinal brines were likely produced. These brines could have facilitated reduction-controlled sulphide precipitation over extended periods, potentially spanning tens to hundreds of millions of years, considering the basin's prolonged depositional history, as outlined in models proposed by Hitzman et al. (2010).

Metals and Fluid Source

The Thule Basin has multiple metal sources, including continental clastic sediments featuring extensive basal redbed sequences, which represent the thickest accumulation of redbeds across Greenland. Additionally, mafic volcanic sequences are present in the lower stratigraphy, accompanied by multiple generations of mafic sills and dykes throughout the stratigraphy. Some of these intrusive bodies, such as the Franklin-Thule sills, are reported to exhibit anomalously high copper content, as documented by Parnell and Boyce (2019).

Within the underlying Paleoproterozoic and Archean crystalline basement, known copper occurrences are documented, notably within the Prudhoe Land supracrustal complex and the Thule mixed gneiss complex, as reported by Thomassen and Krebs (2004). Furthermore, iron oxide copper-gold (IOCG) type mineralisation is observed within the Etah Group. However, given the substantial volumes of redbeds and mafic volcanics within the Thule basin, it is conceivable that a basement source for the metals may not be necessary. Nonetheless, the presence of known Cu mineralisation in the underlying basement further enhances the overall Cu prospectivity of the basin.

The Thule basin presents potential fluid sources, particularly in the form of evaporite-derived brines. Gypsum and anhydrite are documented within the shallow marine sequences of the Dundas and Narssârssuk Groups of the upper Thule Supergroup. Notably, the Narssârssuk Group's Imilik formation features an 8-meter-thick homogeneous bed of gypsum, as reported in a geotechnical drill core south of the Pituffik Space Base by Davies et al. (1963). Additionally, the Aorfêrneq formation within the Narssârssuk Group exhibits various forms of evaporite, including thin beds, veins, nodules, and breccia matrix. Field studies also report evaporate dissolution breccias, providing evidence of vanished evaporites and probable brine generation.

Despite the Mesoproterozoic oceans exhibiting low seawater sulphate concentrations, the existence of giant deposits of this age such as White Pine, demonstrates that viable sediment-hosted Cu systems can develop in the presence of a readily leachable metal source rock, even without hypersaline and sulphate-rich brines (Jones et al., 2023).

Evidence of basinal fluids: a fluid inclusion study (Kettanah et al. 2016) of the gangue minerals in the Kiatak Pb-Cu-Ba occurrence (located within the Dundas Group of the Thule Supergroup and associated with a sill of the Franklin-Thule dyke swarm, c. 720

- 716 Ma) indicates two fluid types: prior to galena precipitation a high salinity (~20 wt.% eq. NaCl) basinal-type aqueous brine cooled from temperatures >300 °C and was trapped first in early calcite, and with further cooling, in barite together with solid bitumen inclusions. Following galena crystallisation, secondary inclusions containing a similar brine, but of lower salinity, higher Ca:Na ratio, and lower temperature, were trapped in calcite. Corrosion of galena was followed by precipitation of lower temperature (~100 °C) barite from a second fluid, comprising immiscible water and methane.

Evidence of basinal fluids is apparent in a fluid inclusion study conducted by Kettanah et al. (2016) on gangue minerals in the Kiatak Pb-Cu-Ba occurrence, situated within the Dundas Group of the Thule Supergroup and associated with a sill of the Franklin-Thule dyke swarm dating to approximately 720 - 716 Ma. Two distinct fluid types have been identified prior to galena precipitation, a high salinity (~20 wt.% eq. NaCl) basinal-type aqueous brine cooled from temperatures exceeding 300 °C, initially trapped in early calcite, and later in barite along with solid bitumen inclusions. Subsequent to galena crystallisation, secondary inclusions containing a similar brine, albeit of lower salinity, higher Ca:Na ratio, and lower temperature, were confined within calcite. The corrosion of galena preceded the precipitation of barite from a second fluid at a lower temperature (~100 °C), composed of immiscible water and methane.

Furthermore, the presence of high total organic carbon (TOC) black shales at various stratigraphic levels within the Thule Basin suggests a probable methane source. These black shales, akin to those in other Bylot basins described as shale gas reservoirs by Greenman (2022), indicate the potential for methane generation within the Thule Basin.

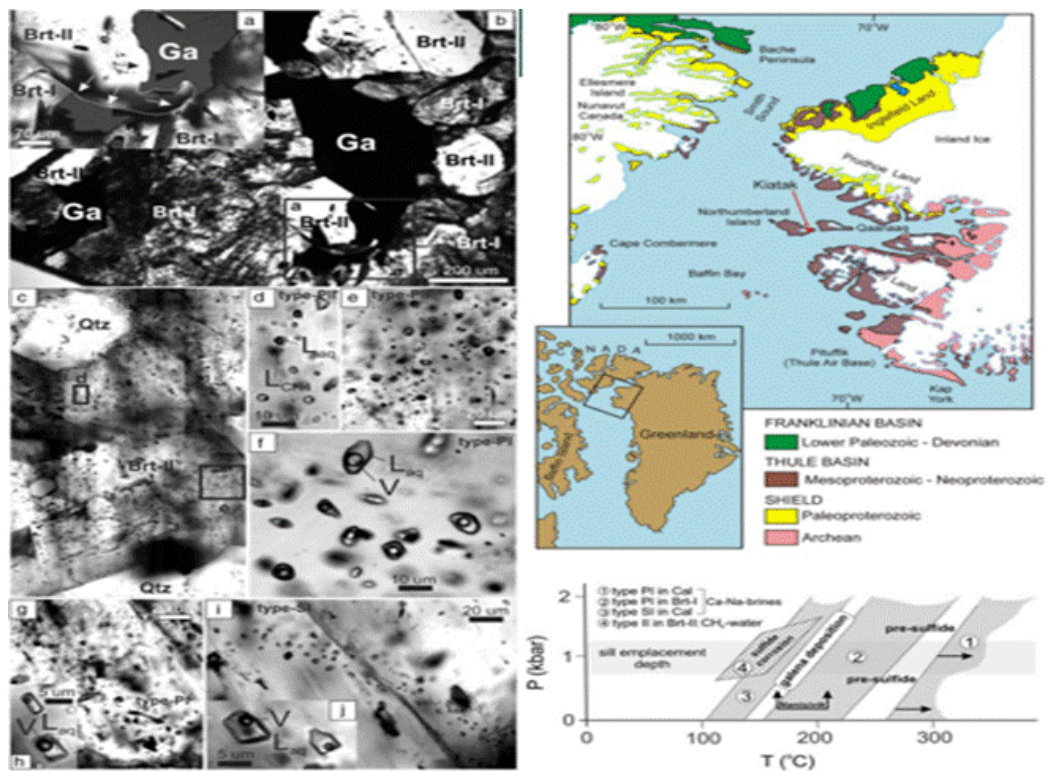


Figure 11. Fluid Inclusion Study of Kiatak Pb-Cu-Ba occurrence (Kettanah et al. 2016)

Drivers & Pathways of Fluid Flow

Energy drivers within the Thule Basin encompass multiple episodes of voluminous mafic magmatism associated with two Large Igneous Provinces (LIPs): the Mackenzie LIP, approximately 1.27 billion years ago, and the subsequent Franklin LIP around 720 - 716 million years ago, as identified by Pu et al. (2022) and Dufour et al. (2023). These events suggest a potential geodynamic trigger for large-scale fluid flow, possibly linked to incipient basin inversion or compression induced by far-field stresses from Grenvillian orogenesis, similar to the contemporaneous Midcontinent Rift.

Fluid pathways within the basin are delineated by various structural elements, including basin margins, extensional basinal faults, grabens, half grabens,

unconformities, breccias, and local folding. Evidence of syn-sedimentary faulting is present, along with inherited structures from the underlying Archaean and Paleoproterozoic basement. The Thule Basin is predominantly dissected by the Thule half-graben system, characterized by WNW-ESE-trending faults, some of which have experienced displacement of several kilometres. Many major faults exhibit signs of hydrothermal alteration, with reports of mineralisation containing quartz-barite-pyrite-chalcopyrite. Notably, the basin remains unmetamorphosed, preserving its permeability and facilitating fluid flow processes.

Metal Deposition

Trap rocks within the Thule Basin consist of thick sequences of reduced sediments, including carbonates and pyritic black shales with high Total Organic Carbon (TOC), predominantly found in the upper stratigraphy of the Thule Supergroup, as noted by Dawes (1997; 2006). These sedimentary packages likely served as in-situ reductants or trap rocks for copper-bearing fluids.

Evidence of hydrocarbons in the basin, indicated by the presence of methane and solid bitumen in fluid inclusion and petrological studies conducted by Kettanah et al. (2016), suggests the existence of mobile reductants. This presence, alongside the in-situ reductants mentioned earlier, is believed to enhance the overall copper prospectivity of the Thule Basin.

Dispersion of Fluids

Indicators of widespread fluid flow are evident throughout the Thule Basin, notably in the extensively leached/bleached redbeds of the Baffin Bay and Nares Strait Groups, where hematite destruction by reduced fluids is observed.

The unconformity between the sediments of the Thule Supergroup and the underlying Archean-Paleoproterozoic basement exhibits significant hematisation upon exposure, both in the rocks above and within a bleached regolith below the unconformity. These findings strongly suggest interaction with oxidised fluids.

The presence of zinc-lead mineralisation higher in the stratigraphy prompts speculation about its relation to a sediment-hosted copper system. These occurrences could possibly represent the depletion of such a system or are associated with a distinct mineralising system or fluid source.

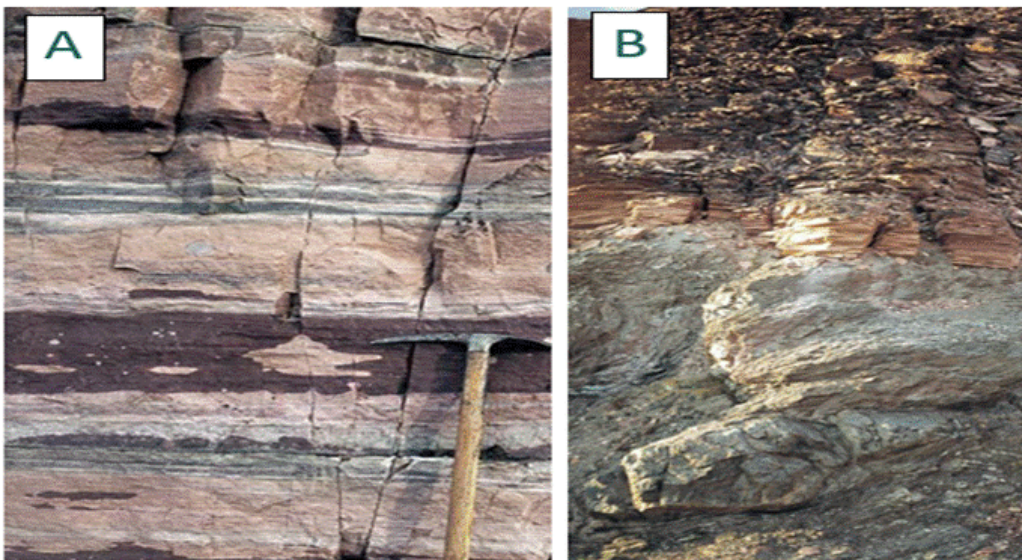


Figure 12. (A) Bleaching of ferruginous sandstone with relict redbeds, Northumberland Ø. (B) Unconformity below the Thule Basin at Bowdoin Fjord with noticeable bleaching of basal sandstone beds and a pale regolith zone up to c. 2 m thick.

Thule Basin Exploration History

The Thule Basin has not been subjected to systematic or commercial mineral exploration for base or precious metals. The primary exploration efforts have been directed towards ilmenite-rich heavy mineral sands found on raised and active beaches, sourced from the Ti-rich mafic sills and dykes intruding the Dundas Group of the Thule Basin. Base metal exploration has been limited to prospecting conducted by the geological survey.

- 1950's: Geological mapping by the United States Geological Survey (USGS) of the area surrounding the US Military's Pituffik Space Base.
- 1950's - 1994: Geological Survey of Greenland (GGU; now the Geological Survey of Denmark and Greenland, GEUS) carried out numerous geological mapping expeditions in Northwest Greenland including the Thule basin. Resulted in the production of the 1:500,000 scale geological map of the Thule area in 1991. Survey geologist, Peter Dawes was responsible for much of the original mapping.
- 1989 - Present: Ujarassiorit (Greenland's annual public minerals hunt) has returned several high-grade Cu and Zn-Pb samples from the Thule basin including several samples with >10% copper.
- 2001, 2003, 2007: Geological Survey of Denmark and Greenland (GEUS) carried out stream sediment sampling and prospecting. Several sediment-hosted Cu occurrences discovered.
- 1994-1995: Minor regional prospecting by the Greenlandic state-owned exploration company, Nunaoil A/S
- 2010-2015: Hunter Minerals Pty Ltd began exploration of ilmenite-rich heavy minerals sands (2010-2015).
- 2015-Present: From 2015 to present Bluejay Mining plc (through its 100% owned subsidiary Dundas Titanium A/S) has carried out extensive exploration and drilling of the ilmenite-rich sands. In 2019, Bluejay shipped a 42,000-tonne bulk sample from their Dundas ilmenite project to the Port of Contrecoeur in Canada, representing the most northerly sealift of dry bulk cargo ever completed globally. Bluejay received an exploitation mining licence for the project in December 2020.
- 2017-Present: Greenroc Mining plc have also been exploring an adjacent ilmenite-rich heavy minerals sands project, which is currently at an earlier stage of exploration compared to Dundas.

References

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About Bluejay Mining plc

Bluejay is listed on the London AIM market, Frankfurt Stock Exchange and its shares also trade on the Pink Market in the US. The Company is advancing multiple highly prospective projects in Greenland and Finland. Bluejay offers both portfolio commodity diversification focused on base, energy and precious metals in Tier 1 jurisdictions.

Bluejay's most advanced project, through its 100% owned subsidiary Dundas Titanium A/S in Northwest Greenland, is the Dundas Ilmenite Project, which is fully permitted with a JORC Mineral Resource of 117Mt at 6.1% ilmenite and a maiden offshore Exploration Target of between 300Mt and 530Mt of ilmenite at an average expected grade range of 0.4 - 4.8% ilmenite in-situ. Bluejay has agreed a Master Distribution Agreement with a major Asian conglomerate for up-to 340ktpa of its anticipated 440ktpa annual output. The Company has signed on a major European bank to head the financing syndicate for Dundas. Bluejay's strategy is focused on finalising and securing financing ahead of commencing commercial production at Dundas in order to create a company capable of self-funding exploration on its current and future projects.

Bluejay, through its wholly owned subsidiary Disko Exploration Ltd., has signed a definitive Joint Venture Agreement with KoBold Metals to guide and fund exploration for new deposits rich in the critical materials required for the green, future and electrification energy transition (the Disko-Nuussuaq nickel-copper-cobalt-PGE Project). The JV has completed intensive analysis and interpretation of the extensive geochemical, geophysical, and geological data collected during the previous exploration campaigns. Leveraging KoBold's proprietary artificial intelligence (AI) and machine learning (ML) platforms, this comprehensive analysis has resulted in the identification of seven initial priority targets within the project area. These seven priority targets exhibit spatial characteristics indicative of potential deposits on a scale comparable to renowned mining operations such as Norilsk, Voisey's Bay, or Jinchuan. The JV is now planning a focused ground-loop electromagnetic survey to refine and prioritize each locality appropriately.

Disko Exploration Ltd holds two additional projects in Greenland - the 692 sq. km Kangerluarsuk zinc-lead-silver project, where historical work has recovered grades of up to 45.4% zinc, 9.3% lead and 596 g/t silver; and the 920 sq. km Thunderstone project which has the potential to host large-scale base metal and gold deposits.

In Finland, Bluejay currently holds three large scale multi-metal projects through its wholly owned subsidiary FinnAust Mining Finland Oy. The Company has identified multiple drill ready targets at the Enonkoski nickel-copper-cobalt project in East Finland. Bluejay's Hammaslahti copper-zinc-gold-silver project hosts high-grade VMS mineralisation and extensions of historical ore lodes have been proven. The drill ready Outokumpu copper-nickel-cobalt-zinc-gold-silver project is located in a prolific geological belt that hosts several high-grade former mines. In August 2023, Bluejay successfully divested its Black Schist Projects in Finland to Metals One plc in a transaction worth £4.125 million (Bluejay currently owns c. 29% of the issued ordinary share capital of AIM listed Metals One plc).

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