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NEWS RELEASE 20 JANUARY 2022

New Copper Targets Identified at ARC

- **Latest analysis identifies new "walk-up" native copper and copper sulphide targets for the upcoming field program**
- **New priority, walk-up, at-surface target identified along the Knuth Fault which is a Discovery Zone "lookalike" feature**
- **Two additional exposures of native copper mineralisation identified from recently unearthed historical documentation at Neergaard Dal**
- **Recent structural geology review reinforces evidence of a large-scale mineral system and regional fertility related to identified faults**
- **Exploration targeting and efficiency of upcoming field programs greatly improved through enhanced geological understanding of ARC**

GreenX Metals Limited (**GreenX** or **the Company**) is pleased to report the findings from ongoing geological analysis at the Arctic Rift Copper Project (**ARC** or **ARC Project**). The latest analysis identifies new "walk-up" native copper and copper sulphide targets for the upcoming field program (Figure 1).

GreenX in collaboration with its joint venture (**JV**) partner Greenfields Exploration Ltd (**GEX**) has advanced its understanding of ARC in northern Greenland. A recent structural geology report describes for the first-time structural features that are tied to the widespread copper sulphide and native copper mineralisation. In addition, an ongoing review of historical notes and data has identified a location containing two types of native copper mineralisation that further strengthens the ARC's analogy with the economically significant Keweenaw Peninsula in Michigan, USA, which contained a total pre-mined endowment of 16 Mt of copper.

This validates the JV's geological modelling on ARC and provides multiple new targets for sampling during the upcoming field season.

Mr Stoikovich, Chief Executive Officer of GreenX Metals said: "The latest supporting evidence for extensive and intense copper mineralisation in an entirely new province is very exciting. This true first-mover opportunity has tremendous potential for multiple major new copper discoveries."

Dr Bell, Project Leader said: "Our low-cost mineral system analysis program continues to gain momentum. The concepts for the new province are rapidly gaining supporting evidence and the precision of our targeting is increasing markedly. This greatly improves the efficiency of our upcoming field programs."

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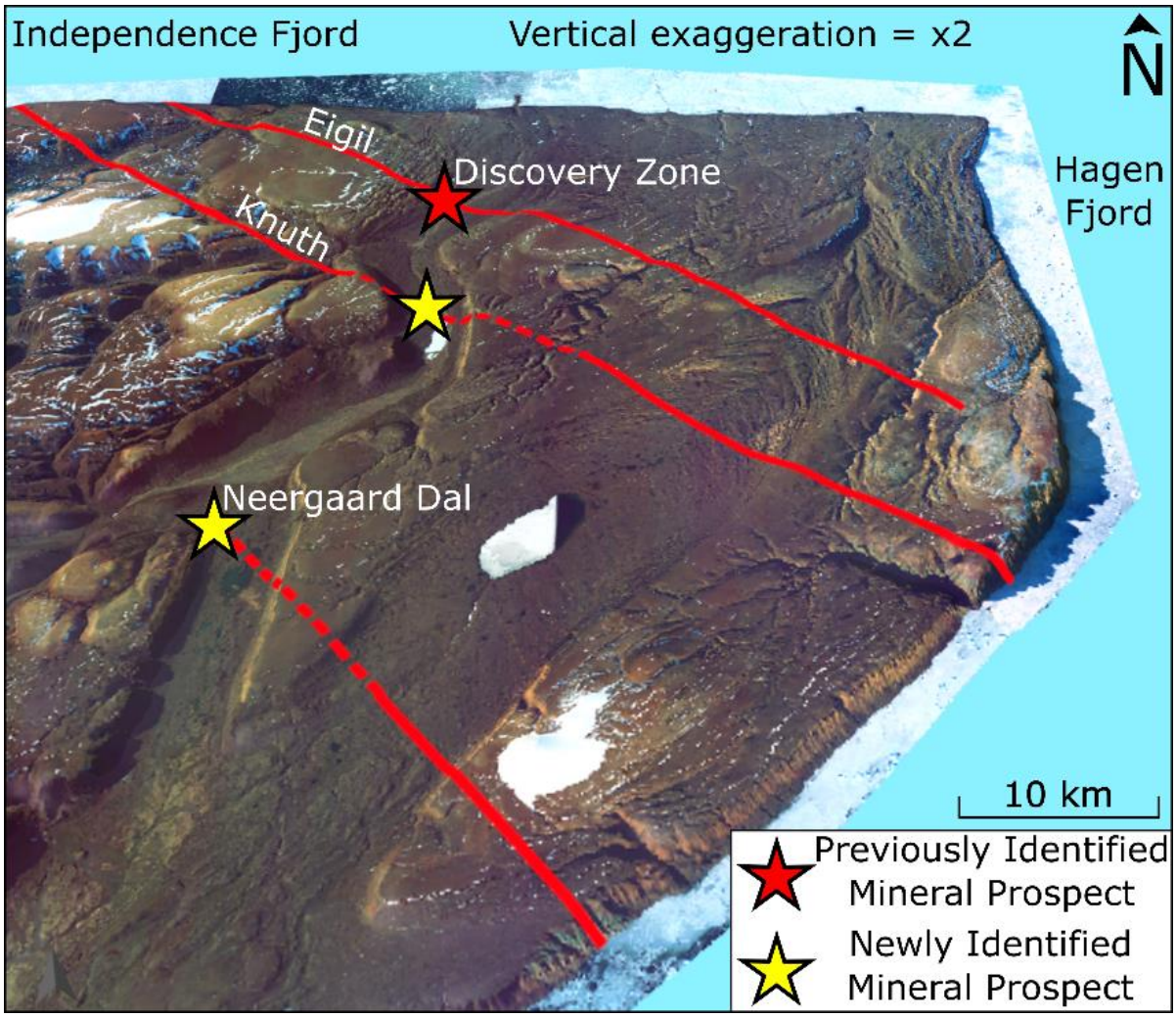

Figure 1: Draped satellite imagery over digital terrain model. Orthogonal view is towards the north looking down Neergaard valley. New structural interpretations showing the identified reverse faults and newly identified targets Neergaard Dal and the Knuth Fault look-alike of the Discovery Zone.

STRUCTURAL GEOLOGY REVIEW

A structural review of the currently available datasets of ARC's geology was recently conducted by specialist consultant Dr Mark Munro[1]. It was confirmed that the known copper mineralisation (Figure 2), including the native copper and Discovery Zone copper sulphides, is associated with reverse faults. Reverse faults are considered to be an important structural control on mineralisation at ARC, with the recent study both extending the known reverse faults with associated mineralisation and identifying new reverse faults (Figure 3).

Dr Munro holds a PhD in Structural and Metamorphic Geology from James Cook University. As a three-year post-doctoral researcher at the University of Western Australia he studied the mineralisation, alteration, and structure of deposits. In addition to his considerable field and structural knowledge, he is a 3D modeler and has global experience with precious and base metal projects. Following a position as a mapper with the Geological Survey of Western Australia, Dr Munro has spent four years working as an applied structural geologist for industry. He engages in the structural logging of drill core, in addition to both surface and underground mapping, with view to understanding the multi-scale aspects of deposit generation.

[1] Munro, Mark (2021). "*Structural Review of the Arctic Rift Copper Project, Greenland*", Munro Geoscience Pty Ltd

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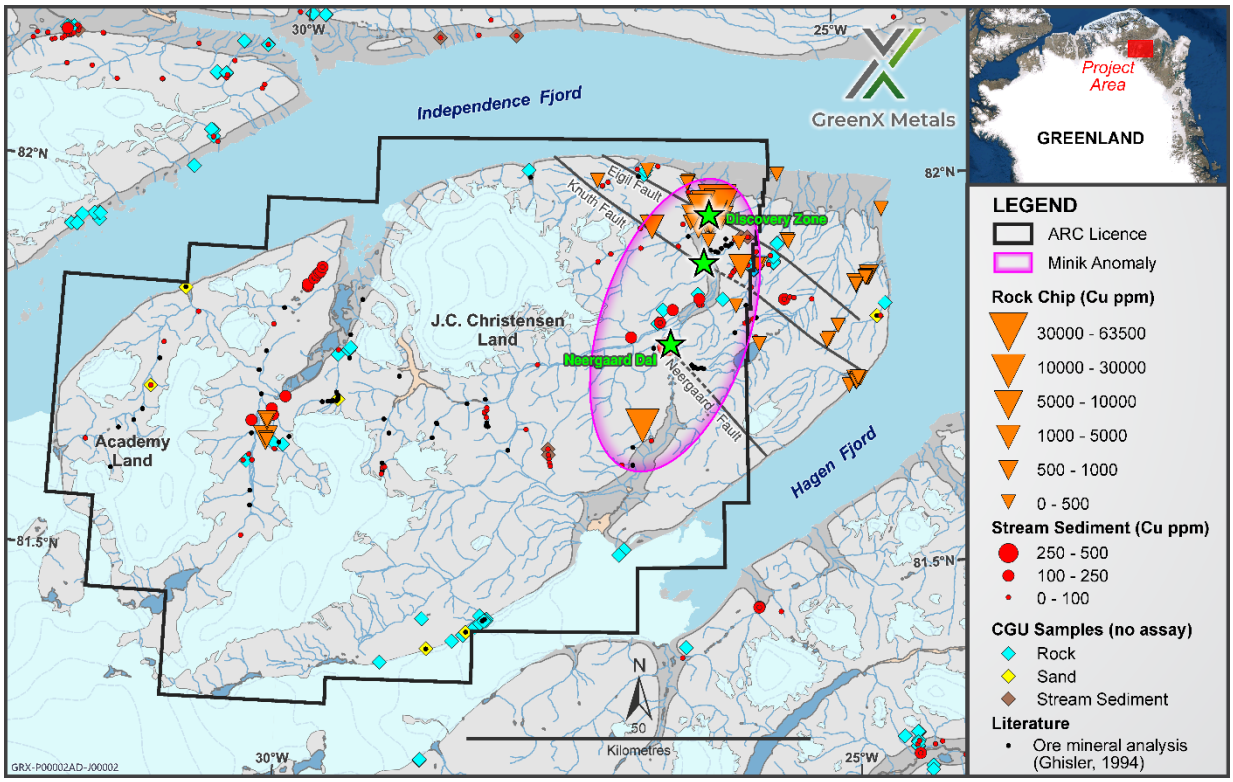

Figure 2: ARC licence area showing historical geochemistry, the Minik Anomaly and identified faults

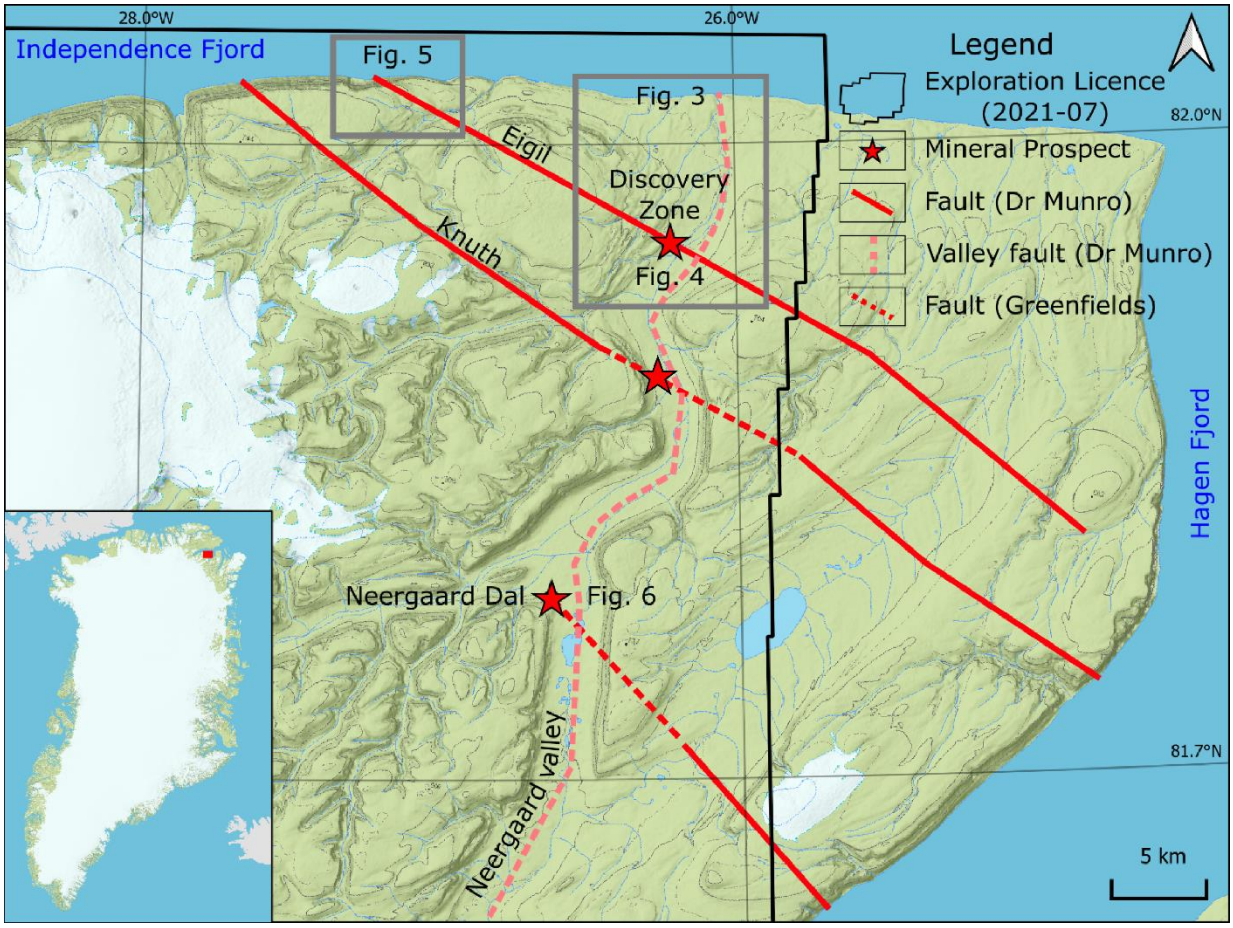

Figure 3: Significant reverse faults identified within ARC (Note: while reverse motion is constrained, the lateral/strike-slip motion is uncertain)

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Eigil Reverse Fault

Reverse faults are associated with the Discovery Zone copper sulphides (Figure 4), from which high-grade results have previously been reported (*GreenX press release, dated 6th October, 2021*). This set of faulting is now known as Eigil (Figure 3). The Discovery Zone includes 4.5m grading 2.15% Cu and 35.5 g/t Ag (true width, Chip Line #7); and samples from the 3m long Trench #1 grading 5.28% Cu and 112 g/t Ag and 3.55% Cu and 263g/t Ag (Figure 5). (*GreenX press release, dated 6th October, 2021*). This at-surface copper sulphide mineralisation is known to have a **strike extent of more than 2 km** trending beneath the shallow cover of the valley (Figure 4).

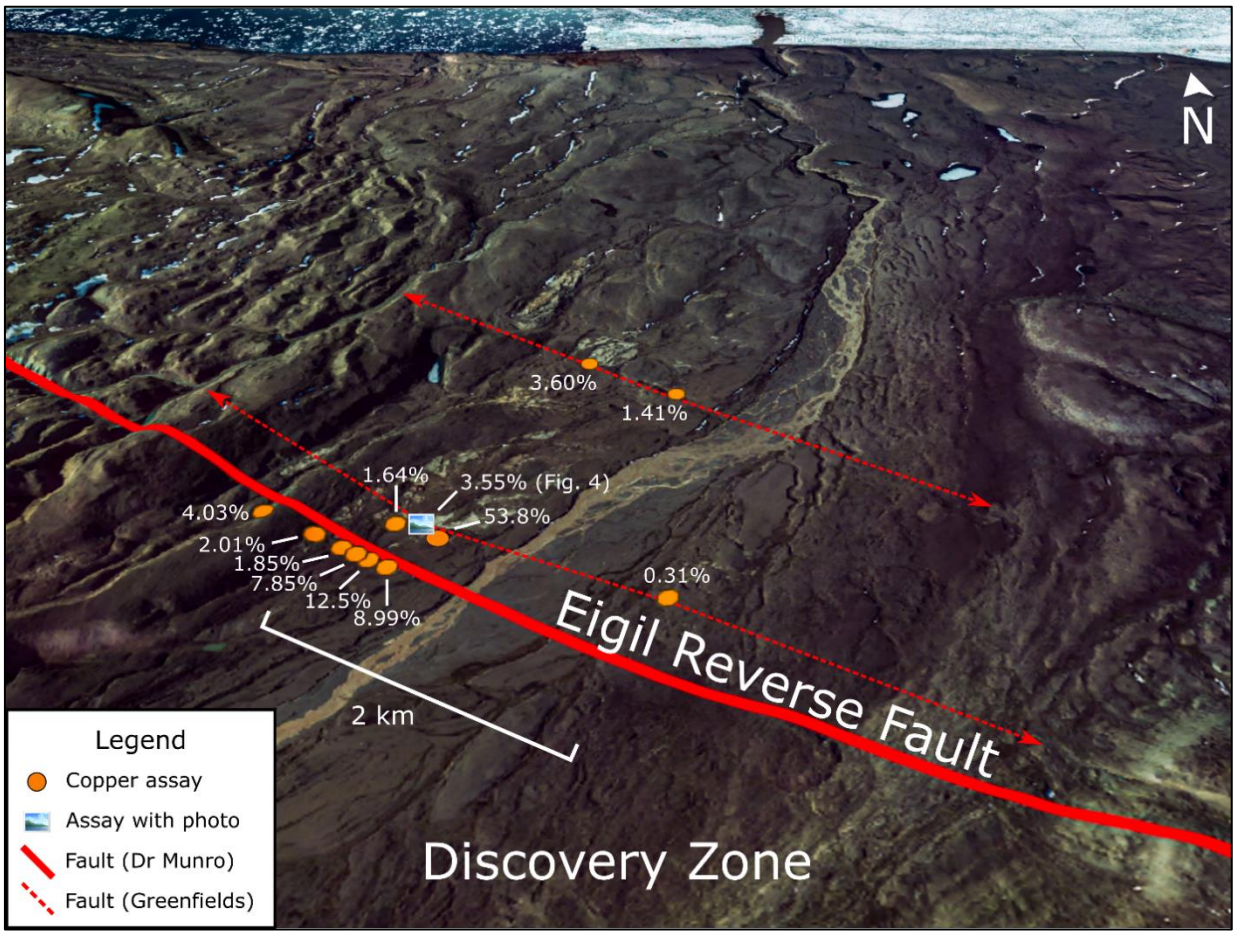

Figure 4: Oblique image of Neergaard Valley, showing the Discovery Zone
(Note: The assay values represent individual high-grade samples previously disclosed in Appendix A of the 6 October 2021 news release)

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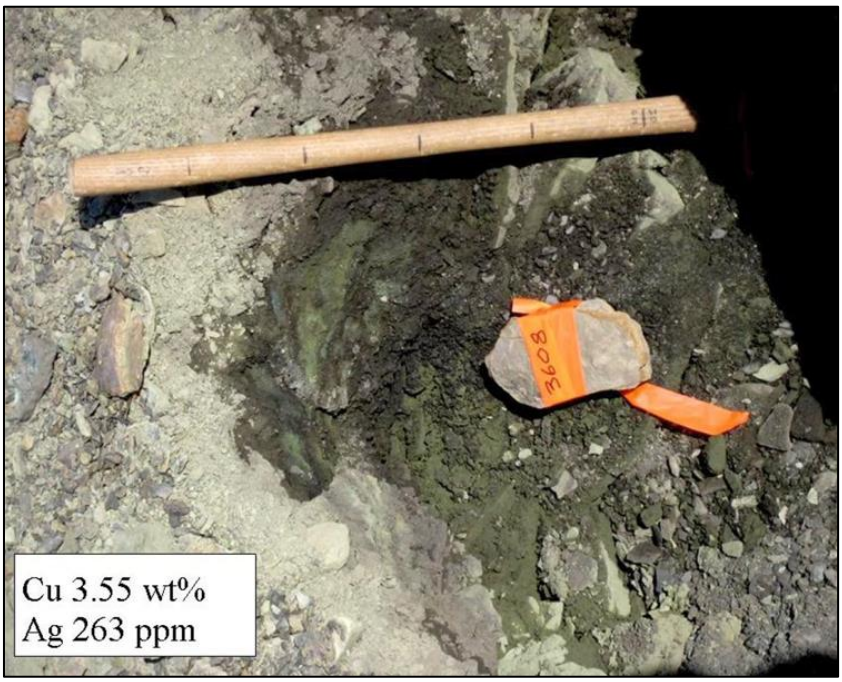

Figure 5: Intense "Black Earth" copper mineralisation from within the Discovery Zone (This photo is of sample 3608 within Trench #1, as previously disclosed on 6 October 2021)

The review by Dr Mark Munro has identified the Eigil reverse fault, an extension of the Discovery Zone, that trends to the northwest into Independence Fjord. This demonstrates known mineralised structures intersecting the Zig-Zag flood basalts (Figure 6), and further strengthens the ARC's analogy with the prolific and economically significant Keweenaw Peninsula. At this analogy in Michigan, the mineralised reverse faults are the fluid transport conduits for the strata bound native copper deposition in flood basalts, and copper sulphides in the overlying sediments. The Keweenaw Peninsula contained a pre-mining endowment of +7 Mt of copper contained in sulphides and 8.9 Mt of native copper.

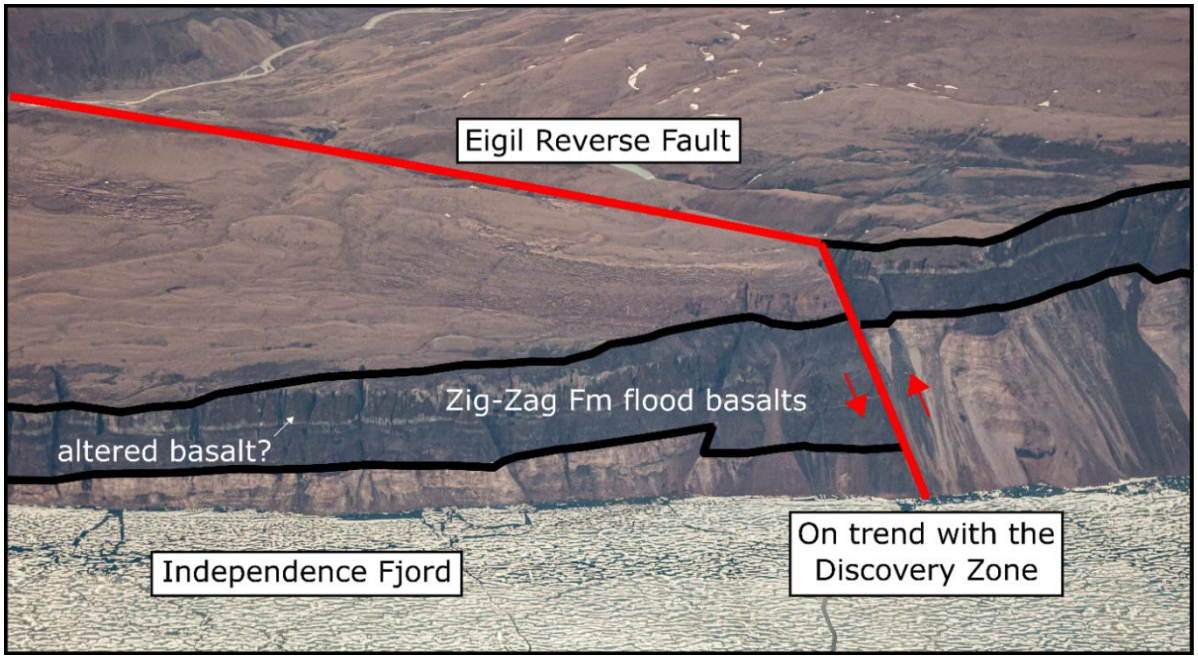

Figure 6: Extension of the Discovery Zone Fault ('Eigel')
(Note: This fault is in Independence Fjord, at approximately (82.03046, -27.17269), and the cliff height at the top of the fault is approximately 450m. The fault displays a southwest side-up (reverse) displacement)
Source: Photo taken in August 2021 and kindly supplied by Arctic Capacity Aps

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Knuth Fault

A second subparallel, northwest-trending reverse fault known as Knuth, is located 7 km to the southwest of Eigil (Figure 3). The Knuth Fault shows similar reverse motion and has never been sampled and represents an entirely new, easily tested zone that is highly prospective for copper mineralisation. Conceptually, Knuth has a similar strike extent to that of Discovery Zone, creating the **potential for a new area of high-grade mineralisation**.

Valley Fault

A third reverse fault is identified 15 km southwest of Knuth (Figure 3). The JV partners' extrapolation of this fault has it trending towards the Neergaard Dal native copper occurrence. At this occurrence in 1979, Government geologists found native copper clasts in scree below a cliff face with breccia-hosted and basalt-hosted copper mineralisation.

A new feature identified by Dr Munro is a fault that roughly trends north-south to NNE-SSW striking (defined by the Neergaard Valley) (Figure 3) with indications of a west-side-up, east-side-down movement. The Valley Fault may also have a reverse movement given the compression from an ancient mountain building event to the east. Both native copper and copper sulphides are known to occur at the confluence of the Valley Fault and the younger orthogonal reverse faults[2].

These observations are important as they reduce the number of faults to be examined and provide targets that can quickly be evaluated in the field. Consequently, the search space and hence exploration costs have been reduced, and timelines shortened.

HISTORICAL DATA SECURED – NEW NATIVE COPPER OCCURRENCES IDENTIFIED

The JV has secured digitised notebooks from the Government's reconnaissance field work that was performed in the area in 1979 and 1980. Valuable new information about sites of native copper was gained from translating these notebooks. Despite being very brief, the field work identified numerous examples of native copper in association with the basalt rocks in Neergaard Valley, the main north-south oriented feature of the Minik Anomaly (Figure 2) (*GreenX press release dated 6 October 2021*).

What is particularly striking is that in the centre of this anomaly there is a historical description of native copper occurring in both breccias (fissures) and gas-cavities occurring near one another (Figure 7). At the Keweenaw Peninsula, native copper specimens weighing over 500 tonnes were mined from fissures and underpinned the original 'gold'-rush. However, it was the copper found in gas-cavities within the flood basalts that underpinned much of the 99-year mining history of the district. The historical description of fissure copper next to cavity-hosted copper within ARC adds strong support to the Keweenaw analogy as well as evidence of a vigorous (favourable), breccia inducing mineralisation event. The JV partners will investigate this site as a matter of priority during the 2022 field program.

[2] While available data highlights reverse components along a number of the Northwest-trending faults, key exposures suggest that some record extensional (normal) activation. This suggests a history of potential reactivation.

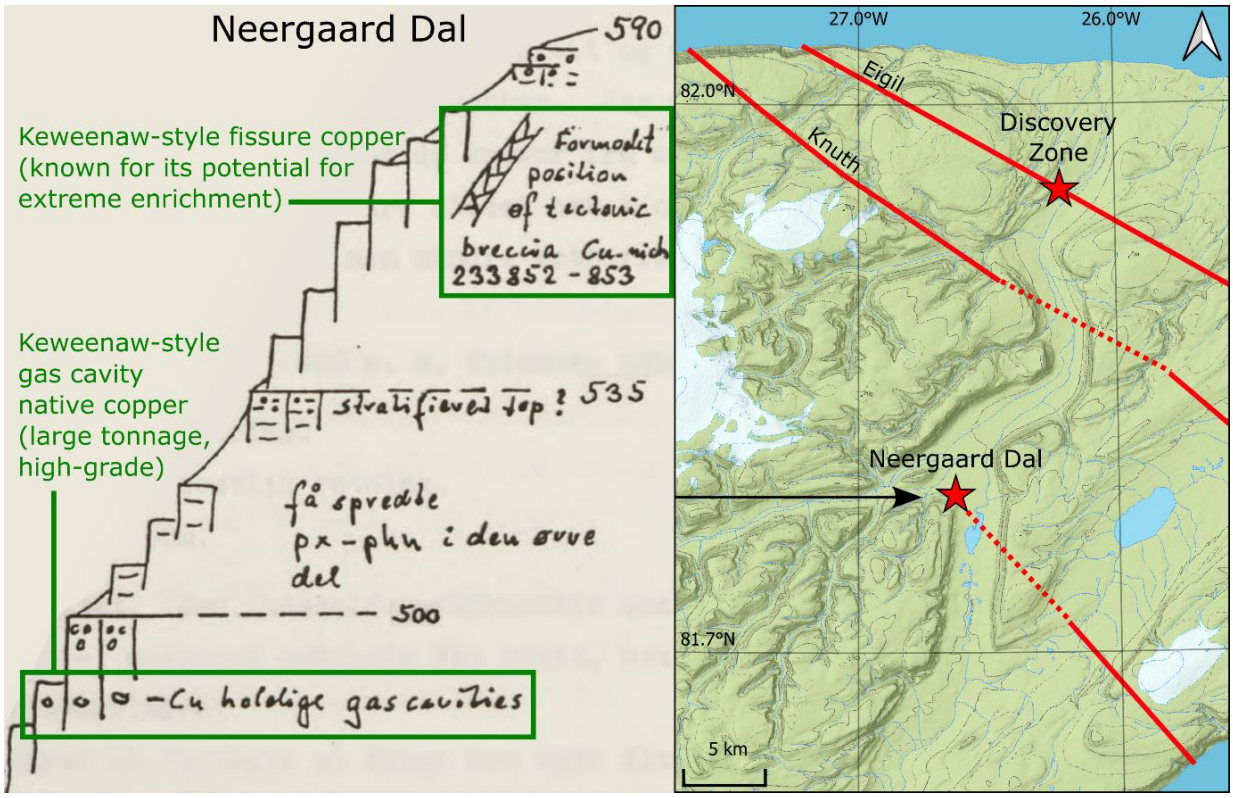

Figure 7: Journal entry describing native copper in fissures and gas cavities at a historical locality now known as 'Neergaard Dal' (map legend is the same as Figure 2)
(Source: Jepsen, Hans A. (1979). "Peary Land 1979 Dagbog Over Sommerns Feltarbejde", report file number 20883)

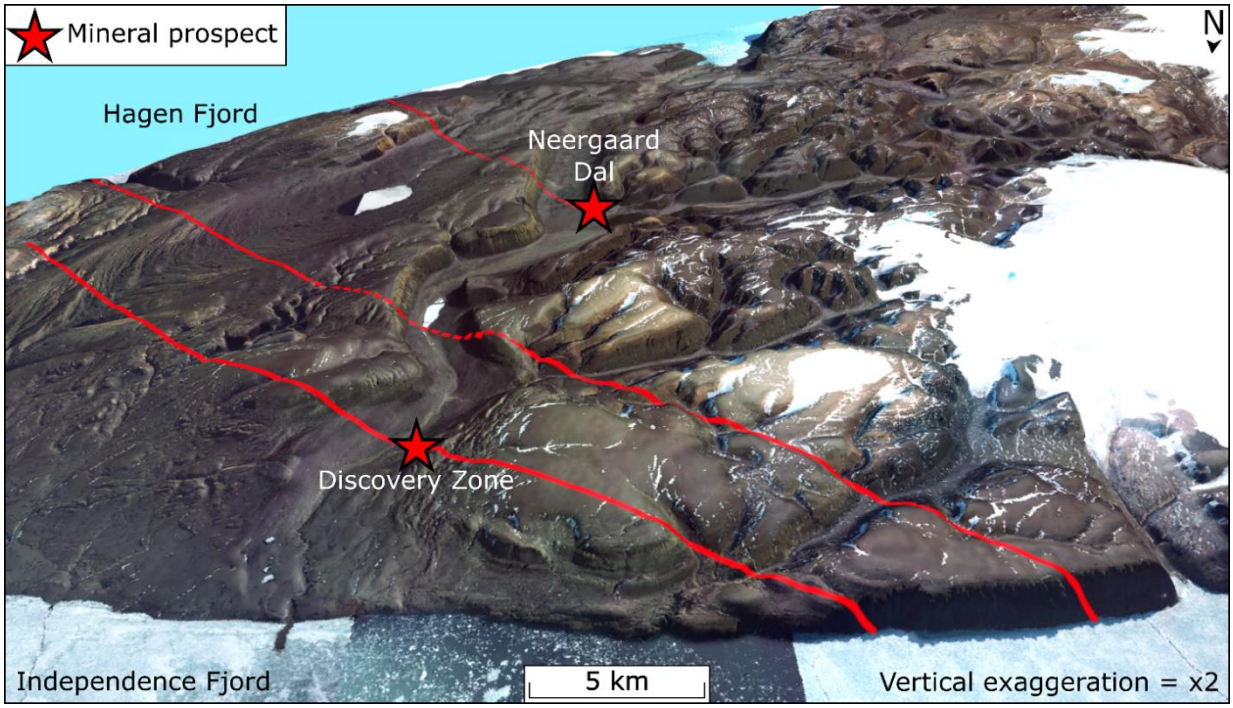

Figure 8: Draped satellite imagery over digital terrain model. Orthogonal view is towards the south looking down Neergaard valley. New structural interpretations link the Discovery Zone and Neergaard Dal prospects with reverse faulting

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REGIONAL DEVELOPMENTS

During early December 2021, Ironbark Zinc (ASX:IBG) announced that it secured a Preliminary Project Letter approval for a US$657m loan from the US Government's EXIM Bank for the development of Ironbark's Citronen lead-zinc project. The Citronen project is located approximately 150 km further north than ARC. The loan, if approved, will mean that the United States is financing most of the cost of developing the strategically important Citronen project. This project will include the construction of an airstrip and port at Citronen, which may provide infrastructure support for a future development at ARC.

Greenland has been increasingly recognised as one of the last great mineral frontiers, with interest from leading miners and commodities houses including Anglo American, Glencore, Trafigura, and IGO. More recently, major foreign governments have also stepped in to support and finance mineral development projects. The Australian Financial Review reported that Greenland 'has found itself in the middle of a geopolitical great game', with the funding for Citronen '[surfing] a wave of geopolitical project funding' in the Arctic region. The United States and the European Union are now all making concrete moves to finance mineral projects in Greenland.

ABOUT THE ARCTIC RIFT COPPER PROJECT

The Arctic Rift Copper Project is an exploration joint venture between GreenX and GEX. GRX can earn 80% of ARC by spending A$10 M by October 2026. The ARC Project is targeting large scale copper in multiple settings across a 5,774 km^2 Special Exploration Licence in eastern North Greenland. The area has been historically underexplored yet is prospective for copper, forming part of the newly identified Kiffaanngissuseq metallogenic province. This province is thought to be analogous to the Keweenaw Peninsula of Michigan, USA, which contained a pre-mining endowment of +7 Mt of copper contained in sulphides and 8.9 Mt of native copper. Like Keweenaw, ARC is known to contain at surface, high-grade copper sulphides, 'fissure' native copper, and native copper contained in what were formerly gas bubbles and layers between lava flows.

—ENDS—

Competent Persons Statement

Information in this announcement that relates to Exploration Results is based on information compiled by Dr Jonathan Bell, a Competent Person who is a member of the Australian Institute of Geoscientists (AIG). Dr Bell is the Managing Director of Greenfields Exploration Limited and holds an indirect interest in performance rights in Prairie. Dr Bell has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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'. Dr Bell consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

This announcement has been authorised for release by Mr Ben Stoikovich, CEO

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Criteria	Arctic Rift Copper project
Mineral tenement and land tenure status	The Arctic Rift Copper project ('ARC') comprises a single Special Exploration Licence ('MEL-S' 2021-07). The spatial area of the application is 5,774km^2, the boundary of which is defined by the points: 82°3'N, 29°18'W 81°35'N, 26°8'W 82°3'N, 25°41'W 81°30'N, 26°8'W 82°0'N, 25°41'W 81°30'N, 26°54'W 82°0'N, 25°43'W 81°25'N, 26°54'W 81°59'N, 25°43'W 81°25'N, 28°20'W 81°59'N, 25°44'W 81°21'N, 28°20'W 81°58'N, 25°44'W 81°21'N, 29°35'W 81°58'N, 25°46'W 81°19'N, 29°35'W 81°56'N, 25°46'W 81°19'N, 31°0'W 81°56'N, 25°48'W 81°27'N, 31°0'W 81°55'N, 25°48'W 81°27'N, 31°42'W 81°55'N, 25°50'W 81°34'N, 31°42'W 81°53'N, 25°50'W 81°34'N, 32°7'W 81°53'N, 25°52'W 81°51'N, 32°7'W 81°50'N, 25°52'W 81°51'N, 31°0'W 81°50'N, 25°54'W 81°54'N, 31°0'W 81°46'N, 25°54'W 81°54'N, 30°18'W 81°46'N, 25°55'W 81°58'N, 30°18'W 81°35'N, 25°55'W 81°58'N, 29°18'W An MEL-S confers an exclusive right to explore for mineral for three years at a reduced holding cost, provided each licence covers more than 1,000km^2. After three years, the holder of Special Exploration Licence has the right to convert the area, whole or in part, to conventional Exploration Licences. Due to the Coronavirus pandemic, all licence obligation in Greenland have been paused until the end of 2021, such that the MEL-S can convert to a normal licence at the end of 2024. The minimum expenditure obligation for a MEL-S is DKK500/km^2 indexed to Danish CPI as of January 1992. The GEX estimates the expenditure requirement will be approximately AUD1,080,000 per annum. However, the Government has waived all expenditure obligations for 2020 and 2021, and as such, no holding cost of the licence will crystallise until 31 December 2022. The obligation for 2022 will be calculated on 1 January 2023 based on the area under licence on a preceding day. Expenditure above the minimum regulatory requirement is carried forward for a maximum of three years. ARC is in good standing. There are no third-party royalties or other rights relating to ARC.
Exploration done by other parties	North Greenland was first commercially explored in 1969 and 1972, which identified native copper and copper sulphides in eastern North Greenland. It wasn't until 1979 and 1980 that more substantive work was performed, this time by the Government. ARC was subject to commercial exploration by Avannaa Resources Limited ('Avannaa') in 2010 and 2011. In its first year, Avannaa focussed its work in a small area in the northern part of the licence area known as Neergaard North. This work focussed on historical Government and academic work that had identified highly anomalous copper mineralisation. In 2010, the work included geochemical soil sampling, rock chipping and trenching of high-grade material associated with a NW-SE trending fault breccias. Based on the success of the 2010 program, Avannaa undertook a much larger regional reconnaissance program in 2011. This program involved a heli-supported geochemical sampling program over a large area designed to test the copper prospectivity of various stratigraphic positions, as well as extending the length of the 'Discovery Zone' identified in 2010. Both aspects of this program were successful in that the Discovery Zone was shown to have a minimum strike length of 2km before disappearing undercover; and that certain stratigraphic horizons show copper anomalism over a significant lateral extent. However, much of the extended area explored by Avannaa was located to the southeast of the ARC and is now located in a Government-mandated no-go zone for mineral exploration.
Geology	ARC contains a sequence of Mesoproterozoic-aged sediments sandstones belonging to the Independence Fjord Basin that have been intruded by highly altered dolerites and overlain by 1.2km of Mesoproterozoic-aged flood basalts ('Zig-Zag Fm' basalts). In turn, the basalts

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are overlain by 1.1km of Neoproterozoic-aged (1,000M to 541M years ago) clastic and carbonate sediments belonging to the Hagen Fjord Group. The lower portion of the Hagen Fjord Group is dominated by sandstones and siltstones, and the upper part by limestone and dolomites. Based on stream sediment samples, the iron oxide minerals switch from magnetite to the east of ARC, to haematite within ARC, which reflects a change in fluid oxidation state (from reduced to oxidised). Fluid flow is from east to west which implies that oxidation is a component of the copper dropping out of solution. The oxidation of a reduced fluid is consistent with the chemistry required to form native copper such as that observed in ARC. The metamorphic grade of the Zig-Zag Fm basalts is of the zeolite facies, and the Hagen Fjord Group sediments show lower grade metamorphism. There is adequate preservation aside from mechanical erosion.

Commercially interesting copper mineralisation occurs in both the basalts and Hagen Fjord Group sediments. The basalts are known to contain in situ native copper, and native copper is found extensively in the surrounding drainage systems. Significantly, the native copper specimens recovered by the Government in 1979, and by Avannaa in 2010 measured 17cm and weighed up to 1kg respectively. These large native copper specimens are thought to originate from amygdales (gas voids) in the basalt, although native copper occurring in faults is also known to occur within ARC. Greenfields considers that the age, setting, and mineral composition makes the Zig-Zag Fm copper analogous to the copper deposits of the Michigan Upper (Keweenaw) Peninsula, and a primary source of copper for the anomalies reported in the overlying sediments. The fault breccias that transect the basalts and Neoproterozoic sediments are interpreted by the Company to represent fluid pathways as there are zones of intense potassium alteration within the surrounding quartz dominated sedimentary rocks. These breccias, which are up to 25m wide, show copper mineralisation. The chalcocite and chalcopyrite copper-bearing minerals are significant as they demonstrate that sulphur has been added into a previously sulphur-undersaturated system. A source of sulphur is generally considered an important factor in the sediment-hosted copper 'deposit model'. Other important components of the deposit model are also reported, including pseudomorphed gypsum (a source of sulphur, and copper mobilising salts), hydrogeologic seals, and contrasting oxidation states. Copper sulphides occur in the predicted geological lithological settings. The highest copper grades are close to geophysical gravity, magnetic and electromagnetic anomalies. The ~640 km^2 area of geophysical and geochemical anomalism is dubbed the Minik Anomaly (or 'Singularity' in the supporting Technical Assessment Report)

The age of the known mineralisation concerns at least two episodes. The Company identifies the Elzevirian Orogeny (c. 1,250Ma) as the likely event associated with the native copper mineralisation in the basalts. However, the Neoproterozoic-aged sediment-hosted copper sulphides demonstrate that there was a second mineralising event associated with the waning Caledonian Orogeny (c. 390 to 380 Ma) The Elzevirian and Caledonian orogenies have a similar orientation. The c. 385 maximum age is supported by the absence of mineralisation known to younger than the Silurian Period (443.8 Ma to 419.2 Ma). The Silurian is associated with the formation of the Citronen zinc deposit, currently licenced by Ironbark Zinc Ltd. Greenfields considers Citronen and ARC's copper sulphides to have formed due to the same event. The known copper and zinc, combined with a Greenfields interpreted geological history, geochronology, and hydrothermal fluid temperatures, to define the +60,000km^2 Kiffaanngissuseq Metallogenic Province.

The basal flows of the Zig-Zag Fm basalts show a marked depletion in nickel. Such a depletion suggests that the nickel may have been deposited into sulphides and conceptually, as nickel sulphide deposit. There has been no effective commercial work on testing the nickel sulphide potential. Pentlandite, a nickel-bearing sulphide, is observed in at least one of the intrusions beneath the basalts. There is no other evidence upon which the nickel-sulphide prospectivity can be evaluated at this stage.

The known copper mineralisation, both sulphide and native, appears to have a structural control. An independent structural geologist, Dr Mark Munro, conducted a review of ARC and confirmed that in an area otherwise dominated by normal faulting, the there is clear evidence of reverse faulting which GEX observes to correlate with the known mineralisation. This review was based on satellite imagery, as well as oblique photography of the fjords taken in 1979/1980. Dr Munro's review also included GEX's revised lithological and structural mapping based on the same data, and largely concurred with GEX's interpretation

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	relative to the historical mapping. This reverse faulting does not appear to have been previously reported in the literature. Furthermore, and new to GEX's understanding was that Dr Munro identified that Neergaard Valley ('Dal' in Danish) as being a fault with a west side up motion, possibly in a shortening motion. At the analogous Keweenaw Peninsula, reverse faulting is considered a primary control on copper mineralisation, and it closely associated with both the native copper and copper sulphides in Michigan. An interactive Government portal that contains the geology, and supporting reports can be accessed via: http://www.greenmin.gl/home.seam . A fully referenced Technical Assessment Report on ARC, can be accessed at **http://dx.doi.org/10.13140/RG.2.2.18610.84161** .
Drill hole information	No drilling has ever occurred within the ARC or in the surrounding area.
Data aggregation methods	All historical assay results presented in this release are based on those published by third parties. Greenfields has made a point of reporting the weighted-averages and has avoided individual high-grade results that may not be representative of the mineral system. No bottom- or top-cuts have been applied. No metal equivalent calculations have been performed.
Relationship between mineralisation width and intercept lengths.	The reported historical trenching and channelling results are presented on both 'as is' sub-perpendicular intersection, and where available estimates are available, true-width basis. Accompanying statements accompany all true-width estimates. No sub-parallel or parallel sample intervals were collected or disclosed. These results are disclosed in GRX's news release dated 6 October 2021.
Diagrams	All relevant maps are presented in the main body of this document, with additional tables and figures available in the Technical Assessment Report and the GRX news release dated 6 October 2021.
Balanced reporting	Greenfields has sourced and reasonably presented the relevant results, where available. The reader is cautioned that geochemical rock chip samples, by their nature, are not representative samples. Geochemical rock chip samples are erratically collected, lack scale and design. Geochemical results must be viewed as empirical evidence of anomalism, and not as a representative indication of mineralisation. Furthermore, due to the historical nature of the samples, it is not possible at the time of publication, to perform checks and balances on the numbers quoted in the literature.
Other substantive exploration data	In 1998, the Government conducted an airborne electromagnetic survey in the north of the ARC. The flight lines were carried out at an altitude of 120m above ground on a 400m line spacing. The geophysical data is freely available on the Government portal. Sediment-hosted copper typically does not respond to most geophysical methods and as such, the data is not suited to direct-detection. The only exception is 3D induced polarisation methods that have not been conducted in ARC. However, Greenfields identifies that the magnetic anomaly is coincident with a gravity anomaly and interprets this signature to represent an iron-enriched hydrothermal footprint. Native copper and copper sulphides occur within this anomaly. No bulk density, geotechnical, metallurgical, rock characterisation, or groundwater analysis has been performed. Greenfields is unaware of any deleterious or contaminating substances associated with the known mineralisation.
Further work	Despite the highly encouraging results and strong indications of a large mineral system, the ARC is at an early stage of exploration. Greenfields has tightly constrained the main mineralising events, but currently only 2D data are available. Obtaining 3D data down to the basement of the basins will help in modelling the movement of metal rich fluids. Due to the extensive outcrop, high-quality rock sampling is recommended to provide a baseline geochemical profile in addition to quantifying the copper-silver grade of the samples.