

Minex No. 55

Mineral Exploration Newsletter
2023

Government of Greenland
Ministry of Mineral Resources and
Justice

CONTENT

Government News.....	1-3.
Greenland Mining and Exploration Updates.....	4-15

Welcome to MINEX

– a window into exploration and mining in Greenland today.

In Greenland 2022 we saw a return to near normal after the challenges related to COVID-19. The increased global attention on minerals critical for the green transition has added further focus on Greenland, both in the traditional exploration and mining industry, but also new fields such as carbon capture and storage. Greenland's vast hydropower resources can become a key feature in developing these projects. In this issue of Minex you will find Government news as well as company and project updates

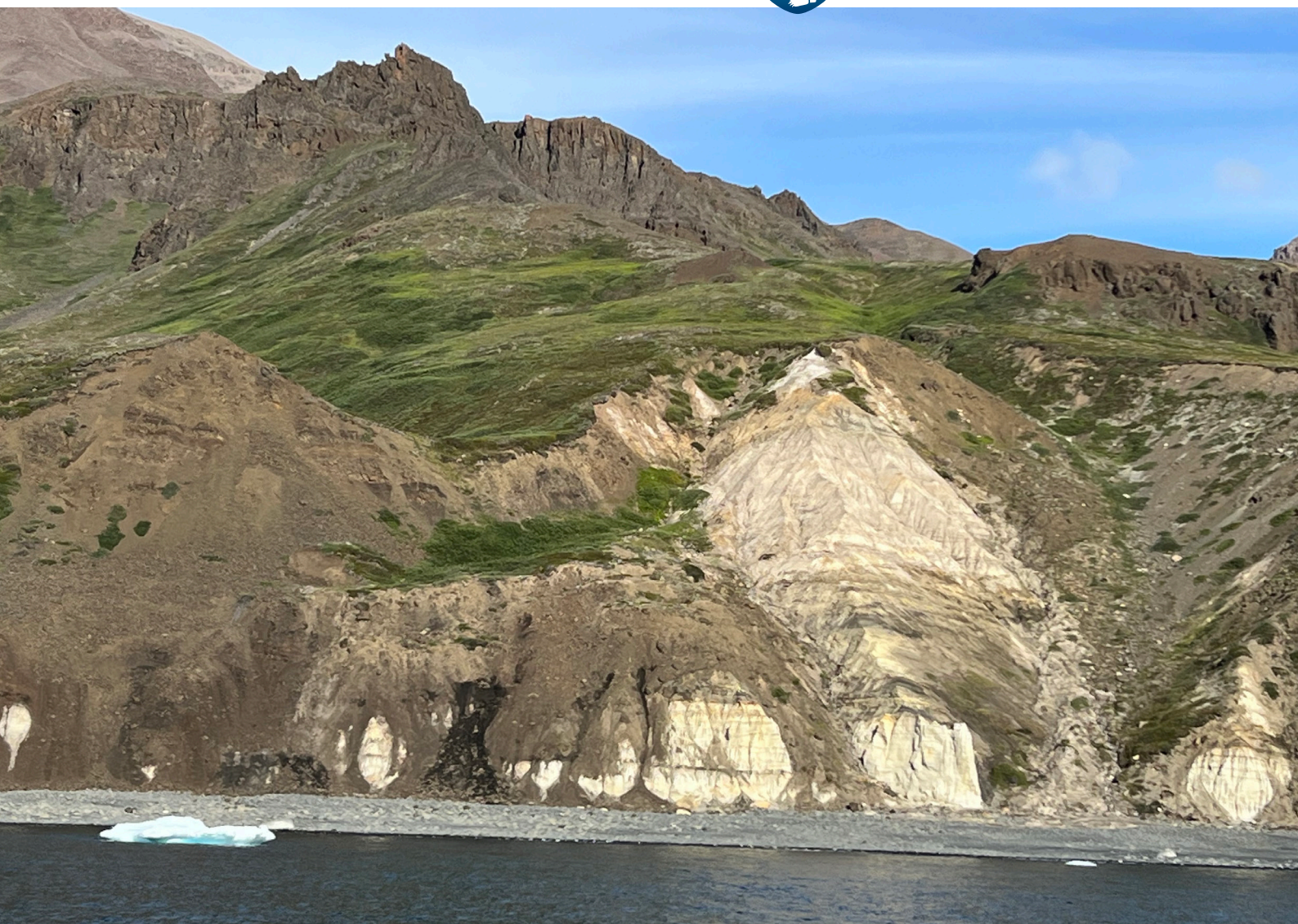
Enjoy reading!

Aqqaluaq B. Egede

Minister of Mineral Resources and Justice



NAALAKKERSUISUT
GOVERNMENT OF GREENLAND

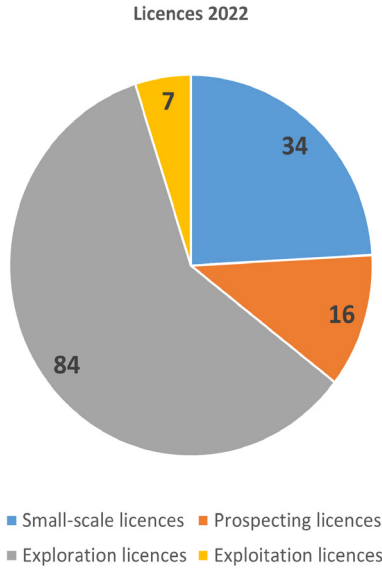


Licence status

During 2022, the number of exploration licences has remained fairly constant throughout the year, but the level of field activities has increased significantly as the effect of COVID-19 related effects wear off.

For up-to-date licence information, licence map, licence applications and regulations, please visit

<https://govmin.gl/en/licensing/>



Number of licences by type. December 31, 2022



Helicopter equipped for hyperspectral data acquisition. Kap Simpson, NE Greenland, Ministry of Mineral Resources and Justice. 2022

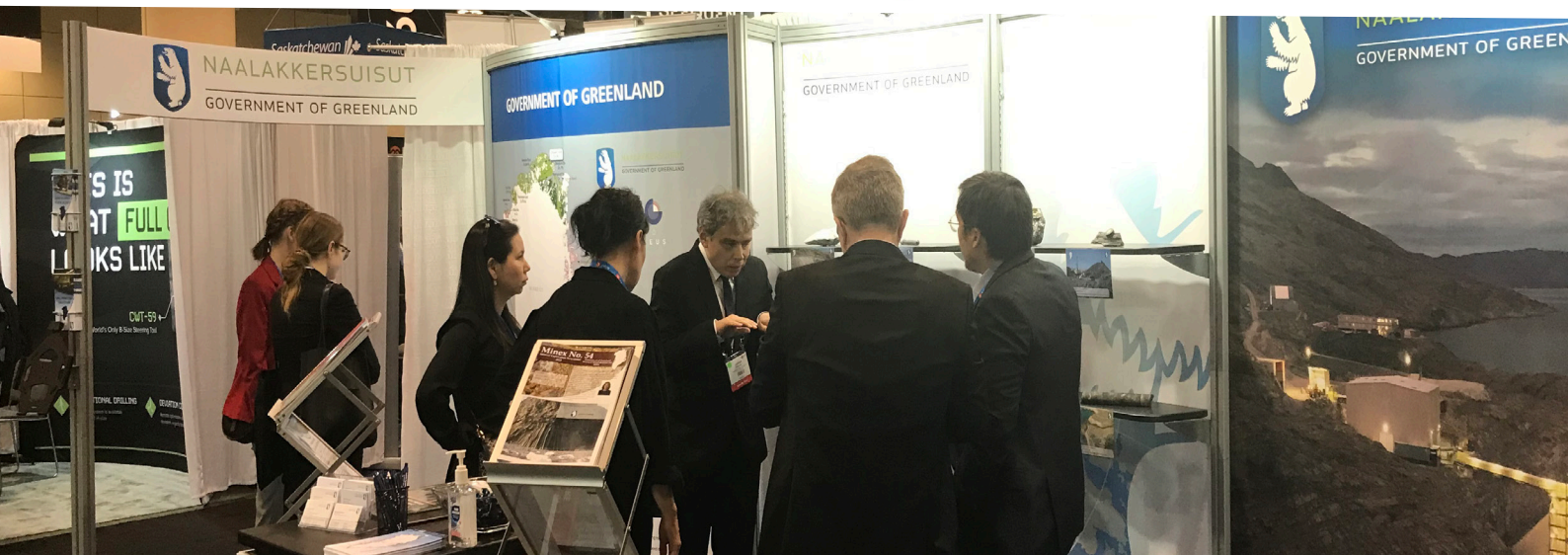
Conventions 2023

The Ministry of Mineral Resources and Justice will be present at various marketing events, where interested stakeholders can learn about Greenland's mineral potential and open-ground prospects, the ongoing exploration and mining projects, business opportunities, and also pick up publications and data packages relevant to exploration in 2023.

We would like to invite all interested stakeholders to visit us at the booths, as well as to enquire about meeting with us separately during the conferences. For more information or for enquiring about a meeting, please contact asn@nanoq.gl.

AME Roundup 2023, Vancouver. January 23-26
Booth 516/518
www.roundup.amebc.ca

PDAC 2023, Toronto. March 5-8
Booth 417
Greenland Day, March 6, Room 205B
www.pdac.ca



Greenland's Green Minerals Report

A Path to Market Report for the Sustainable Development of Elements and Minerals Critical to Clean Energy Technologies

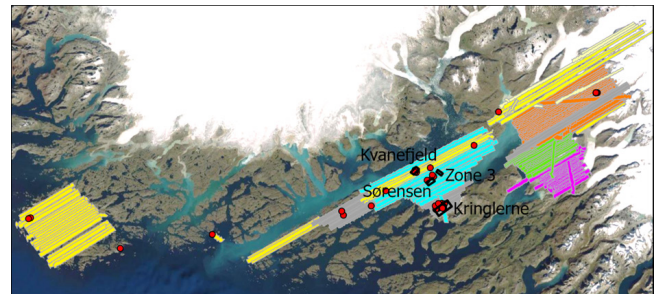
Demand for green minerals is expected to increase significantly as the world continues to shift toward renewable energy. In a 2021 published report, the International Energy Agency (IEA) projects that the clean energy goals contained within the Paris Agreement correlate to an estimated 400% increase in demand for specific green minerals by 2040. IEA also predicts that, as the pace of new renewable energy installations increases,

there will be supply constraints for green mineral as early as 2030, with a particular emphasis on cobalt, copper, nickel, molybdenum, and key rare earth elements (REEs), such as neodymium and dysprosium. The report provides a summary of the current state of mineral resource development in Greenland.

The report has been prepared by Deloitte & Touche LLP ("Deloitte") for the U.S. Department of State ("DOS") under a contract between Deloitte and the DOS.

Hyperspectral data from South Greenland to be released

In 2019 an airborne hyperspectral survey was conducted along with ground-based field work to collect spectral data and rock samples. The hyperspectral survey and mineral mapping of the Gardar Province is a collaboration between the U.S. Department of State and the Government of Greenland. Field operations were conducted by the project partners that include the U.S. Department of State, the U.S. Naval Research Laboratory (NRL), the U.S. Geological Survey (USGS), Asiaq - Greenland Survey and the Ministry of Mineral Resources and Justice. Airborne data covering approximately 3000 km² of rugged terrain with a focus on the Ilímaussaq intrusion and Igaliku Igneous Complex were collected. The processed data and project report will be released shortly.



AISA DUAL coverage of the study area during NRL's 2019 airborne survey.

www.govmin.gl

Department of Geology activities in 2022

In 2022 geologists from the Ministry of Mineral Resources and Justice initiated and carried out a number of geoscientific projects aimed at increasing the knowledge of the Geology of Greenland as well as promoting the economical potential.

- Sampling and assessing the Tikiusaaq Carbonatite SE of Nuuk in a joint project with The US Department of State
- Sampling and assessing the Alkaline intrusions at Kap Simpson, NE Greenland in a joint project with the US Department of State
- Geoscience mapping and assessment of the economical potential of Hudson land, NE Greenland in a joint project with GEUS
- Mapping the potential for Carbon Capture and Storage in Greenland
- The National Mineral Hunt. Ujarassiorit
- Focus on critical minerals in relation to the EU



Kap Simpson, Northeast Greenland. 2022 Field season

www.govmin.gl

R500 Greenmin Ltd.

Focussed on olivine for carbon sequestration



R500 Greenmin

Natural sequestration of CO₂



R500 Greenmin is the holder of MEL 2020-48, which crosses the Fiskefjord. The company identified 5 Olivine occurrences which were visited in 2021. Samples were analysed by SGS in early 2022. Based upon the results of the site visit and of assaying, the company has prioritised one occurrence on the Southern side of the Fiskefjord in Quassugarsuaq which outcrops over 6.35 hectares. (site no 3)

Mineral analysis indicated that the quality of the Olivine is lower than that of the historical Seqi mine, as it is characterised by high levels of Amphibole at least at surface.

R500 Greenmin's primary focus is to discover and mine Olivine (Forsterite) from coastal deposits for Carbon Capture and Storage programmes managed by CO₂-Zero Ltd, a carbon sequestration company focused on enhanced mineral weathering and R500 Greenmin's strategic partner. R500 Greenmin will continue to evaluate site no.3 and will consider applying for new licences in olivine rich areas in the Region.

Sequestration and Olivine

Mineralogical characteristics of Olivine affect its sequestration dynamics. The location and behaviour between iron and magnesium or fayalite and forsterite in the grains, determine the exposure potential of magnesium to carbon dioxide. Porosity affects the transportation of CO₂ in liquid (water) to deeper penetration and consequential

weathering and reaction rates.

The presence of other elements, in particular Chrome and Nickel may have negative environmental impacts in the event of precipitation.

Sequestration activities

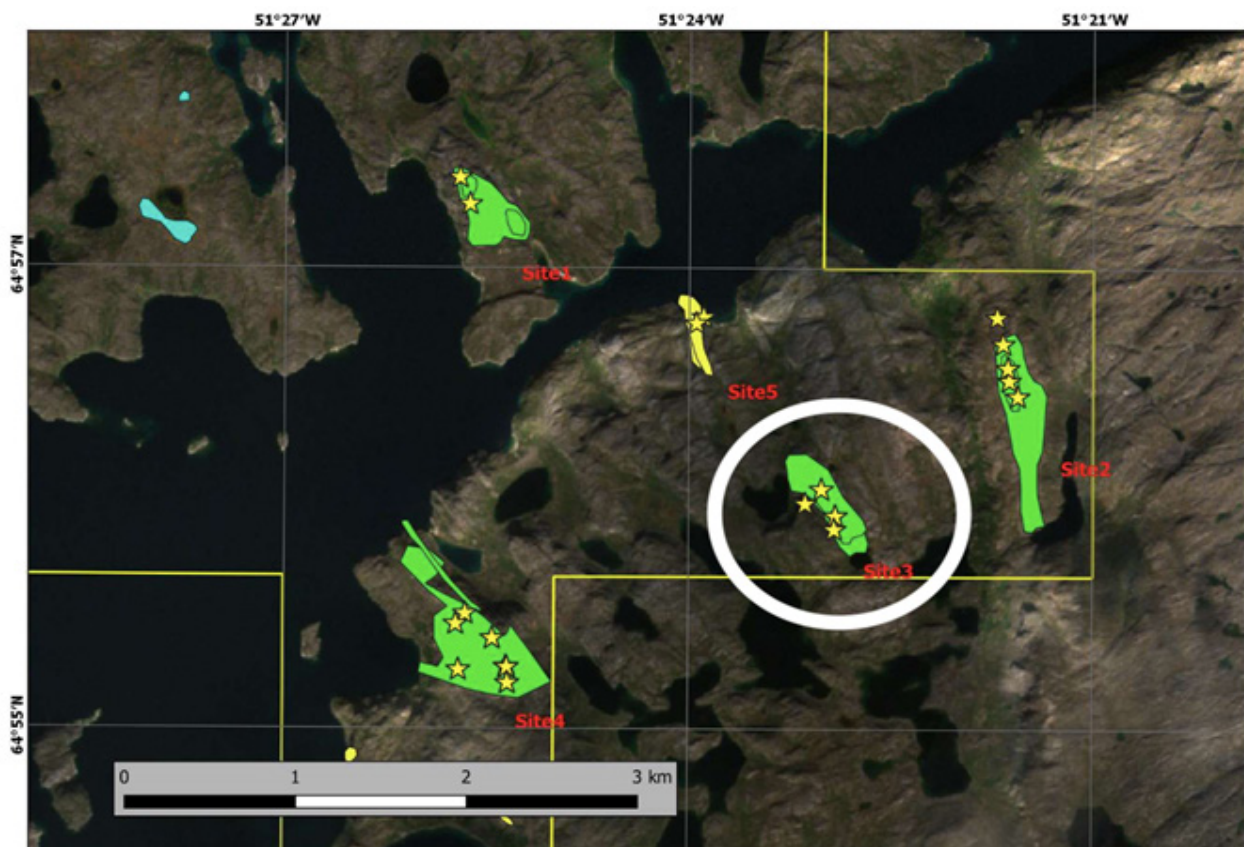
CO₂-Zero has been carrying out pilot test work in Turkey and France and the positive results are the basis for a large scale project that is being discussed with the Government of a West African country, targeting the capture of 200 000 tonnes of CO₂ annually, requiring nearly 300 000 tonnes of olivine; 1 tonne of Olivine has the capacity of permanent capture of 628 kilos of CO₂.

Required parameters

High grade Forsterite is important for the feasibility of carbon sequestration projects. The cost of raw materials (olivine) and in particular logistics and handling can be challenging to the sale of carbon offsets. CO₂-Zero estimates that the cost of capturing 1 tonne of CO₂ through enhanced weathering needs to remain below \$50.

While CO₂-Zero is looking at technologies for enhanced weathering in colder climates, ie. closer to source, particularly in Greenland, hotter and humid locations still remain the primary environments for enhanced mineral weathering of olivine.

www.resource500.com



Greenland Resources Inc.

Announced Positive NI 43-101 Definitive Feasibility Study; received ERMA support; commenced sponsorship agreement with the Kommuneqarfik Sermersooq; and obtained approval for the ToR ELA/SLA

NEO:MOLY

Greenland Resources Inc. is a Canadian mining company that owns 100% the Malmbjerg molybdenum project, a world class Climax-type pure molybdenum mineral deposit near tidewater in east-central Greenland.

In February 2022, the Company published an NI-43-101 Definitive Feasibility Study completed by Tetra Tech, which concluded an expected Base case after-tax IRR of 22.4%, NPV6% of US\$1.17 billion and a Levered pre-tax IRR of 40.4%, after tax IRR of 33.8% and payback of 2.4 years. The project has Proven and Probable Reserves of 245 million tonnes at 0.176% molybdenum disulfide (MoS₂), for 571 million pounds of contained molybdenum metal. During the 20-year life of mine, the project can produce 24.1 million pounds of molybdenum metal per year, as the high-grade Mo is mined for the first half of the mine life, the average annual production for years one to ten is 32.8 million pounds per year of contained molybdenum metal at an average grade of 0.23% MoS₂. The project has an environmentally friendly mine design focused on reduced CO₂ emissions, reduce water usage, low aquatic disturbance and low footprint due to modularized infrastructure. Consistent with primary molybdenum deposits, the ore body is very low in impurities like phosphorus, tin, arsenic, and therefore can meet the highest specifications of high-performance steel, an industry lead worldwide by the European Union. Excluding China, only 10% of the total molybdenum production is primary molybdenum production, Malmbjerg will be 50% of that. Mining primary molybdenum uses significantly less energy



and reagents than mining bi-product molybdenum. In June 2022, the European Raw Material Alliance, a European Union Body responsible to secure strategic raw material project for the European Green Deal, announce that it will support Greenland Resources in securing finance for the Malmbjerg Molybdenum Project and strengthening relationships with downstream molybdenum users in the EU industry ecosystem. Currently, Europe is the second-largest global molybdenum user but has no production of its own.

In July 2022, Greenland Resources, beyond legal obligations, commenced a sponsorship agreement with the Kommuneqarfik Sermersooq municipality aimed at helping the local community of Ittoqqortoormiit, the only nearby settlement located 190 km to the southeast of the Malmbjerg Project. The agreement establishes support in areas like education and mining training, support the upcoming 100-year anniversary of the founding of Ittoqqortoormiit, the restoration of the new curation of the museum, among others.

In September 2022, Greenland Resources announced that the Government of Greenland, approved the Terms of Reference for the Environmental Impact Assessment and Social Impact Assessment, which constitute the first of two Government approvals needed to obtain an exploitation license for the Malmbjerg Molybdenum Project in Greenland.

www.greenlandresources.ca



Amaroq Minerals Ltd.

Amaroq Minerals Ltd. Extend Exploration Activity During 2022

TSX.V : AMRQ LON : AMRQ



Amaroq Minerals



Through the year Amaroq (formerly AEX Gold Inc.) expanded its license holding to a total of 7866Km² making it the single largest license holder in Southern Greenland and the 3rd across the country. Coupled with this the Company completed its joint venture with ACAM to extend its reach beyond gold and precious metals and into the critical metal space.

In order to capitalize on this, Amaroq conducted its most ambitious exploration season to date which included diamond drilling across three separate targets on three separate licenses.

Nalunaq saw the construction of two new mountain roads to allow access to the full up-dip extension of the Valley Block. Upon completing these roads the Company undertook ~2,500m of infill and ~6,500m of extension drilling on this recently defined high grade plunge that mirrors the previously recognized and historically mined, Mountain, Target and South Blocks. Exploration work was also conducted across the Mountain Block in order to model the up dip extension of the mineralized material above the 720L.

At Vagar Ridge, four drillholes were completed either side of the host granodiorite ridge, expanding out from the historical drilling conducted here by Nuna Minerals.

The aim for this work was to assist in geological interpretation of this large gold anomalous zone and to understand the alteration and mineralization styles hosted here. Amaroq intend to lean on the geological understanding and experience gained from Nalunaq while also assessing other mineralization styles in the Vagar Ridge area and across the Vagar licence.

Core drilling was also completed at the Sava licence close to Narsarsuaq. Here two ~150m scout drillholes were completed on 2 of 3 identified IOCG targets from the 2021 season. This was coupled with extended ionic geochemistry and surface grab sampling programmes. All these are starting to paint a picture of an evolving copper belt running from Kobberrineburgt in the West through to Sava in the East.

All this core was sampled and prepared on site thanks to the newly installed and commissioned Containerised Preparation Laboratory at Nalunaq.

In addition to these three key projects, Amaroq flew ~11,000 line Km of airborne geophysics over North Sava and the Nanoq regions and further reconnaissance exploration around the Sermilik fjord.

All together this made for a very active 2022 field season for the Company

www.amaroqminerals.com



Drilling West Sava, 2021 and logging Vagar Ridge core at Nalunaq Camp



Eclipse Metals Ltd.

Eclipse Metals Early Readings Show Astounding Magnetic Rare Earth Ratios At Grønnedal

ASX:EPM

Eclipse Metals Ltd has recently concluded an exploration drilling program to assess the potential of their Exploration License Area covering the historic Ivigtût mine site and the Grønnedal carbonitite complex. Samples collected during the program are now en route to Perth, Australia, for laboratory analysis. Eclipse is extremely enthusiastic about the initial portable XRF readings, measured in Greenland before shipment, and hope to see similar results reflected in laboratory value (Q1 2023). XRF analyses of samples have returned encouraging values and relative ratios for praseodymium (Pr) and neodymium (Nd), discussed in detail below. These results indicate that the Grønnedal REE bearing carbonatite deposit is significant on a global basis.

Lower La and Ce values, to be confirmed with comprehensive laboratory assays across the Grønnedal complex or a significant part thereof, indicate a higher commercial value of the mineralization containing magnetic REE such as Pr and Nd, often termed the 'magnet feed' REE, that are critical for high-performance magnets used by and in high demand from the automotive sector and for wind turbines. This can be compared with other rare earth deposits: i) Grønnedal Pr+Nd: 55% of the measured 4REE (La+Ce+Pr+Nd) ii) Mountain Pass* Pr+Nd: 17% of the measured 4REE (La+Ce+Pr+Nd) iii) Mount Weld CLD* Pr+Nd: 25% of the measured 4REE (La+Ce+Pr+Nd)*
Reference: Technology Metals Research, TMR (2015)

eclipse



Founded in 2010, the company has historically only undertaken exploration programs on their Australian mining tenements where conditions are equally harsh, however extremely different to the drilling conditions in Greenland. For this reason, Eclipse has been guided by Greenlandic and Danish experts in their fields, to assist with navigating the project and employ best practices for these conditions. Danish field geologist, Ole Chistiansen, with Greenlandic heritage was perfectly positioned to assist on-site and offer his expertise during the field program. Eclipse looks forward to Ole and other local experts assisting in future work programs on this exciting project.

Support of local communities, government agencies and local contractors (such as drilling contractor 60 North, who provided both drilling services and personnel) was vital to the completion of this program. In turn, Eclipse endeavors to engage in collaborative efforts with local communities going forward and will advertise in local communities for any on-site positions which may become available for future projects. The company is committed to developing a strong ESG framework for the Greenland projects to include minimal environmental impact; developing and preserving Ivigtût's history by providing assistance with the restoration of the Ivigtût museum, and use of renewal energy wherever possible.

As an Australian company, Eclipse Metals Ltd commissioned this project with collaboration from Greenlandic enterprise. The company hopes that, going forward, the project will not only benefit the company, but also the country and the Greenlandic public.

www.eclipsemetals.com.au



Geologists Ole Christiansen and Pele Tobias Vetterlain on-site at Ivigtût

Ironbark Zinc Ltd.

Support by Glencore and Trafigura

ASX:IBG

Ironbark
Zinc Limited



Ironbark Zinc Limited had a busy 2022 at the Citronen Project, culminating in a site visit with representatives from US Government owned EXIM Bank in July of this year. The site visit was conducted as part of US EXIM's ongoing due diligence related to its potential debt funding of the Project. The due diligence work was focused on both technical, commercial and ESG related issues and EXIM was assisted by RPM Global and Greengate Advisers (both US based) for these tasks.

In May 2022 Ironbark announced an MOU with Norway based LNS A/S to explore potential partnerships at Citronen and various representatives from LSN, including President Mr. Frode Nilsen, also attended site in July 2022.

Discussions with both groups remain ongoing at the time of writing and a potentially major field season is being planned for 2023 at Citronen Fjord.

www.ironbark.gl



Lumina Sustainable Materials

LUMINA'S BUSINESS IS GAINING MOMENTUM RAPIDLY

WITH SEVERAL SHIPMENTS OF ANORTHOSITE DELIVERED TO A LARGE-SCALE EUROPEAN CUSTOMER, LUMINA HAS STARTED TO REAP THE FRUITS OF ITS LABOR.



When the bulk carrier Marietje Nora left port from Qaqortorsuaq in the Kangerlussuaq Fjord on November 5th with 8,000 tons of anorthosite in its cargo hold, it was floating proof of Lumina's achievement. The recipient, a very large European customer, has purchased several shipments of anorthosite in continuously increasing quantities.

Since Lumina Sustainable Materials decided the year before last to focus its efforts on its product Greenspar™, a refined anorthosite material that can be used in a variety of different industrial products such as e-glass, mineral wool, paints, and plastics, the enterprise has gained momentum. As one of few operating mines in Greenland, Qaqortorsuaq has grown to become a viable business, and Lumina already has a promising dialogue with interested American buyers.

Building materials with far less CO₂

Lumina is currently in the process of developing new anorthosite-based products with a number of different applications. It has managed to establish a highly efficient production, and the company is very focused on sustainability. Its anorthosite can be used to make a wide range of carbon-friendly or entirely carbon-free building materials and industry products. Also, Lumina's refining of anorthosite on the mining site is purely mechanical and does not involve the use of chemicals.

A well-oiled operation

Lumina's production has been through an elaborate process of finetuning and adjustment and is now running optimally and efficiently. The growing interest in Greenspar™ for various industrial purposes requires a fully stable and operationally reliable setup that is able to handle the large quantities of raw material. A great part of the success hinges on the highly experienced local manufacturing team with 25 dedicated people working in shifts to execute all scheduled steps of the manufacturing process.

Looking towards renewable energy

The fact that Lumina is in full activity now and delivering frequent shipments of Greenspar™ to the different markets around the world, while developing new products to meet the growing demand, is the much-needed boost that will help the company consolidate its position as a key player and innovator in this rapidly evolving industry.

Lumina's long-term strategy is to replace fossil fuels with renewable and sustainable energy sources, where wind, solar energy, and hydropower are possible choices, a shift that will improve the company's competitiveness and independence.

Lumina's production will undergo stable growth in 2023, which will also result in an increased number of employees.

www.lumina.gl



Greenfields Exploration Ltd.

Completes initial site visit to ARC Project in Northeastern Greenland



Greenfields Exploration



Greenfields Exploration Limited (Greenfields) is a mineral developer focusing on large scale projects within Greenland. Its current focus is the Arctic Rift Copper (ARC) Joint Venture with GreenX Metals Limited (GreenX LSE/ASX/GPW:GRX). The ARC project covers a 5,774 km² licence area and is known to be prospective for basalt, fault and sedimentary rock-hosted copper mineralisation as part of the newly-defined Kiffaanngisuseq mineral province.

During 2022, Greenfields and GreenX have focussed their field work on understanding and developing the ARC Project. The results of this work program have demonstrated the high-grade nature of the known copper sulphide mineralisation (Figure 1) and wider copper mineralization in fault hosted 'Black Earth' zones and adjacent sandstone units (Figure 2). The exact position of a native copper fissure at the Neergaard Dal prospect was also identified. During the site visit, the field team located an insitu peak sample grading 53.8% copper and 1,074 g/t silver, located along strike from historically reported float sample also grading 53.8% Cu with 2,480 g/t Ag.

Further along strike to the west, a well exposed zone is visually estimated to be around 5m wide, from which a pXRF analysis yielded a median of 4.47% Cu and 91 g/t Ag, verifying a historical report of 4.42% Cu and 187.5 g/t Ag from a 3m long trench.

One of the objectives of the site visit was to verify the Discovery Zone, given the extremely high grades reported historically. The location of the high-grade material was apparent from over 150m altitude and on the ground. Finding the native copper mineralisation at Neergaard Dal was similarly easy. Historically, a copper fissure was noted but this was recorded prior to GPS and so the exact location was unknown. A well-mineralised fissure was quickly identified, which bodes well for finding additional fissures in this area and further afield.

The full results are included in the GreenX news release dated 9 November 2022.

www.gexpl.com



Figure 1: Copper oxide coated chalcocite in sandstone from the Discovery Zone. This sample comes from 81° 57' 18.58", -26° 12' 0.86".

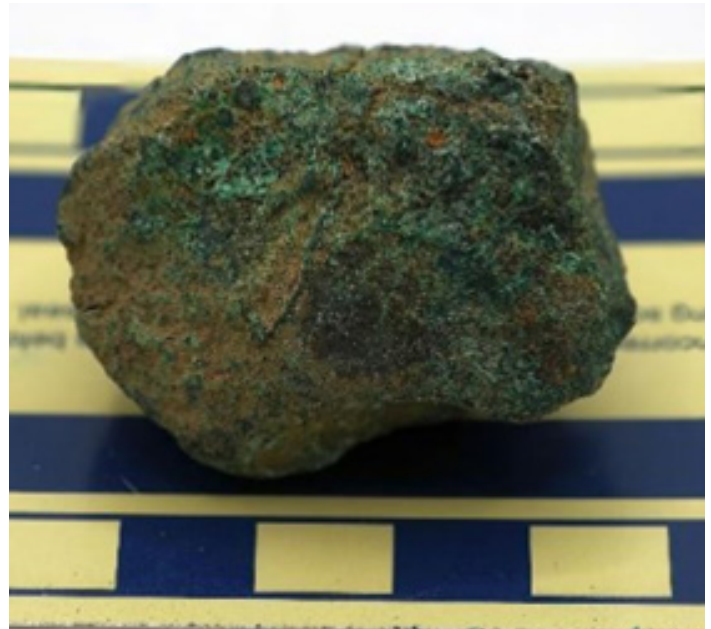


Figure 2: A clast of pure chalcocite recovered from the Black Earth. Note: this very dense sample has only moderate surficial alteration and is thought to be comprised mainly of chalcocite. The sample was recovered from 81° 57' 18.6000, -26° 12' 08.8940"

GreenRoc Mining plc

Fast-tracking the world-class Amitsoq Graphite Mine towards production – an exceptionally high-grade flake graphite project in Southern Greenland.

AIM: GROC

The Amitsoq Graphite Project, located in the Nanortalik region of Greenland, has been confirmed as one of the highest-grade graphite deposits in the world.

Based on phase-one drilling conducted in 2021, GreenRoc declared a JORC-resource (indicated and inferred) at Amitsoq of 8.28Mt at 19.75% graphite for 1.6Mt of graphite.

Further drilling in 2022 of 19 holes and 2,844m successfully delineated two main orebodies, the Upper Graphite Layer (UGL) and Lower Graphite Layer (LGL). The LGL is the most voluminous with a true thickness varying between 2.50m in the south and 20.69m in the north (Table and Figs. 1 and 2). LGL is also the richest with values typically in the 22-24% graphite range. A full suite of assays is expected by December 2022, and a significantly upgraded resource estimate is expected in Q1 2023. Additional high-grade graphite deposits and showings nearby the Amitsoq deposit are an indication of the significant resource potential of the region.

Testwork on graphite ore from Amitsoq was carried out by ProGraphite GmbH in Germany,

GREENROC

MINING PLC



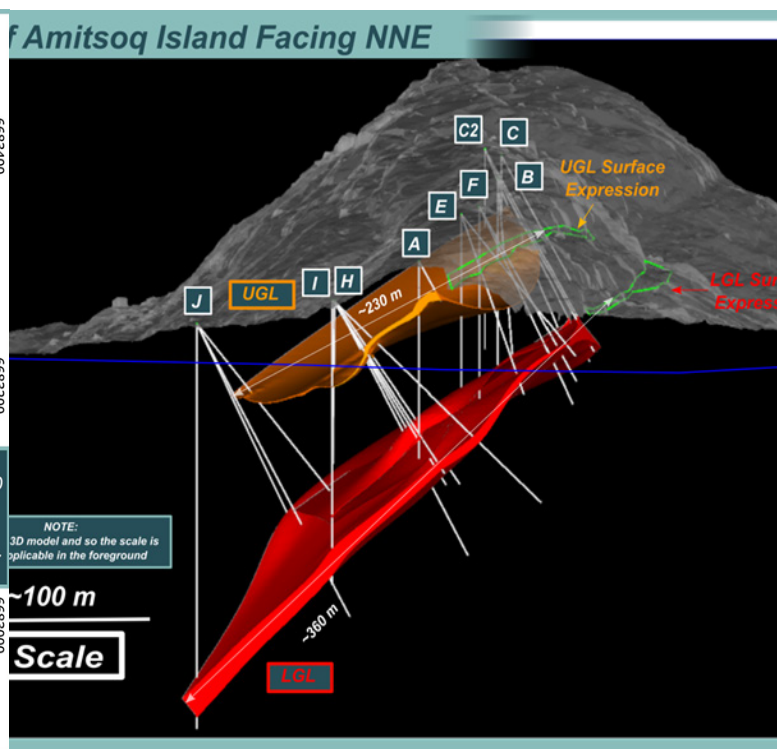
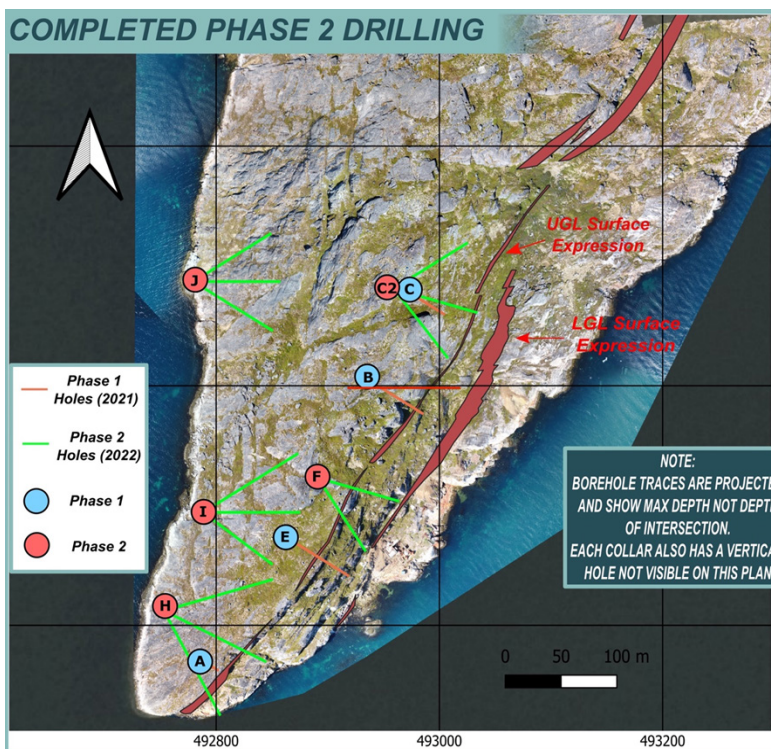
and the results show that in addition to delivering a 96% graphite concentrate by simple flotation, Amitsoq graphite is easily spheronised to anode-grade material, for use in EV batteries (Fig. 3). The EV battery industry will by 2030 be demanding more than seven times today's global production of graphite.

UVR-FIA GmbH is currently processing 700kg of bulk samples collected from old Amitsoq mine workings to constrain processing parameters and to produce graphite product for further spheronisation tests and for marketing purposes.

This summer also saw the completion of the bulk of the fieldwork involved in the Environmental Impact Assessment studies and the start of the Social Impact Assessments, the completion of which are important milestones on the road towards exploitation permitting and production.

A significant work programme is planned for the company during 2023 as GreenRoc focuses its efforts to develop Amitsoq deposit towards production. This will entail the ongoing EIA and SIA, processing bulk samples and conducting a Scoping Study.

www.greenrocmining.com



BLUEJAY MINING PLC.

*Fieldwork recommences on three Greenlandic Projects
in 2022*

AIM:JAY



Bluejay Mining Plc, listed on the LSE AIM market ticker JAY, is a Greenlandic centric mineral exploration and development company with assets also in Finland. Through its two wholly owned subsidiaries, Dundas Titanium A/S and Disko Exploration, it has four projects in Greenland:

- 1) Dundas Ilmenite (Titanium) Project: the most advanced project, is being developed towards production.
- 2) Disko-Nuussuaq Project: a 2,897km² licence with opportunities for magmatic massive sulphide nickel-copper-cobalt-platinum group metals deposits.
- 3) Kangerluarsuk Project: a 692km² licence with defined zinc-lead-silver drill targets.
- 4) Thunderstone Project: a 2,555km² licence, early phase, exploration project with potential for gold and base metals.

2022 was the first opportunity following the impact of COVID-19 that Bluejay were able to carry out material fieldwork on three of its Greenlandic Projects at Dundas, Disko-Nuussuaq and Kangerluarsuk. For Dundas 2022 commenced with the publication of important Electronic Nautical Charts covering the seaward approach and coastal waters for Dundas. In March the European Raw Materials Alliance (ERMA) announced their official support for the Dundas Ilmenite Project, their first for a project in the Arctic region. This endorsement also enables ERMA to secure a supply of ilmenite from Dundas for end users within the EU. Later in March Bluejay raised \$7m of equity to fund the Dundas Feasibility Study which is critical for the prospective financing of Dundas. The summer field season at Dundas comprised various works to increase confidence in an initial optimised mine plan schedule, drone surveying occurred for terrain modelling to aid detailed engineering and additional drilling. Various stakeholders, including potential service providers, and Bluejay's Master Distribution Partner also visited the site in this season. At Disko-Nuussuaq Bluejay is looking to discover a new battery metal district essential to supporting the global shift to green energy and net zero targets.

A significant milestone was met with the incorporation of Nikkeli Greenland A/S, the JV company which is now the new licence holder

at Disko. Nikkeli's creation represents the commitment of Bluejay and JV partner KoBold Metals in exploring and finding a resource of global significance. The progression at the JV utilises Bluejay's in-country and exploration experience together with KoBold's leading-edge technology and substantial backing from the world's leading investors and technological entrepreneurs. The 2022 field activities at Disko-Nuussuaq targeted numerous areas for massive nickel, copper, cobalt and platinum group metals bearing sulphides using cutting edge technology and included: 3,030 line kilometres of Falcon Airborne Gravity Gradiometer, Gravity, Magnetics and 2,115-line km of high resolution UAV Magnetics surveying. The geophysical data, mapping and the pending geochemical results for all target areas are currently being further integrated with existing data and interpreted by KoBold's expert team utilizing their proprietary artificial intelligence platforms to prioritise and ratify mineralisation targets for eventual drilling. Bluejay fulfilled the role of Field Operations Manager during the field programme.

At the Kangerluarsuk project, Bluejay carried out a comprehensive survey programme which included 587 km of aerial gravity and magnetic surveys to further refine targets ahead of a future drilling programme. These initial targets of significant zinc, lead, silver, and copper mineralisation were identified by historical mapping and sampling work conducted by previous operators. The license is located just 12 km north of the Black Angel mine an area well known for substantial and exceptionally high-grade zinc and lead mineralisation with an extensive and successful mining history. These surveys should represent a confirmatory programme which complements existing geochemical and geophysical data and is hoped to lead Bluejay to a significant future mine. The results are currently being processed. In late October Bluejay appointed Mr Robert Edwards as its Executive Chairman. Mr Edwards brings over 30 years of relevant experience in the natural resources sector to Bluejay. Mr Edwards served as a Non-Executive Director of MMC Norilsk Nickel, the world's largest producer of nickel and palladium. He also served as Non-Executive Chairman of Sierra Rutile Limited, a leading producer of mineral sands products.

www.bluejaymining.com

TANBREEZ MINING GREENLAND A/S



During the past year Tanbreez has concentrated on developing markets, in particular developing the company's US interests.

A thorough examination of this market, with assistance from the federal authorities, strongly suggests there is a market for a greater volume of product. As such Tanbreez will consider an increase in throughput around 3 million tons per year within a time horizon of about 5 years. It is anticipated the building of the plant will commence in 2024.

This means 2023 will be a busy year with not only a prospective float, but an extensive drilling program aimed at converting more of the 4.7 billion tons of ore from JORC Inferred to at least JORC Indicated. To aid with this the company has taken an option over a large RC drilling rig.

Also currently being completed from our 2022 work program is the plan for a track to the top of the plateau to allow access for the rig to the 5 x 3 km plateau, where rapid drilling with such a rig is possible.

Continual research is also being undertaken in the laboratory to find uses for the current wastes. The research to date has been so successful that we believe the by-products will produce ample cash flow resulting in the amount of waste to considerably reduced.

The company has reached an agreement in principle with the Greenlandic electrical company, Nukissiorfiit, to supply the plant with hydro power from a line just a few kilometres away. This will considerably reduce the carbon footprint of the project.

The proposed increase in through put will also result in a major increase in local job opportunities up from the current 80 direct jobs to possibly several hundred.

Geologically the last few years have cumulated in major advances in the geological interpretation with the Tanbreez project clearly now a metasomatic origin, with the resultant dramatic increase in potential for further ore.

The current resource stands at 4.7 billion tons of ore at 1.9% ZrO₂, 0.2% Nb₂O₅, 0.6% REO and 0.03% Hf₂O, Ta₂O₅ and possibly WO₄. However, as this can easily be upgraded by magnetic means, with the sale of the wastes anticipated to pay for the upgrade, the effective head grade is 9-10% ZrO₂, 2.5-2.7% REO (30% heavies), 1.0% Nb₂O₅ and 0.15% Ta₂O₅, HfO₂ and possibly WO₄.

www.tanbreez.com



Figure 1-Tanbreez orebody



Figure 2- Recent fieldwork attended by the owner, Greg Barnes and consultants

Resource 500 FEVTI Ltd.

Updates for Isortoq TVM deposit

Fe
V
Ti
**Resource
500**



During 2022, the company has focused on further evaluation of the Isortoq deposit as a carbon free and critical metals project producing concentrate for downstream hydro-metallurgical processing. The current resource is 70 mt. with an exploration potential in excess of 1.1 billion tonnes over two parallel dykes.

Critical Metals (Ti-V, Mg, P-Ree-Sr, Co)

Resource 500 has taken a geometallurgical approach to investigate the full mineral potential of Isortoq troctolite. A vanadium enriched titanomagnetite is the primary mineral in the troctolite ore (46%). Hydrometallurgical routes for recovery of Mg and Fe from Olivine (13-15%) are being explored. Initial consideration of recovery of Phosphorous and Rare Earths (>2500 ppm) from a tertiary Apatite (2%) concentrate are at an initial stage with cooperation from the Technical University of Norway. The potential for the recovery of Cobalt and Nickel from sulphides may also be possible through reverse circulation of the primary concentrate.

Carbon free potential

The green-energy potential of the Isortoq area is characterised by constant strong winds, glacial rivers and tidal flows.

Analysis of katabatic wind data generated by the University of Liege over 16 years shows constant strong SSW from the Icecap with average annual speeds of 9 m/s at 80 m height. The only period of low winds (3 m/s) occurs over 2 weeks in early July each year.

Two glacial rivers enclosing the deposit (Kuutsiaq River and the flow into the Isortoq Inlet) provide an estimated 16 mWh (April-November) and 6 m/W/h (December-April).

The 24.5 sq.km Tarajornitsoq tidal lake connects to the NW corner of the Nunaa Qorsuk Inlet through a 9.5 km ice-free channel narrowing to 25 m in two gorges provides the potential for dual-direction hydro power.

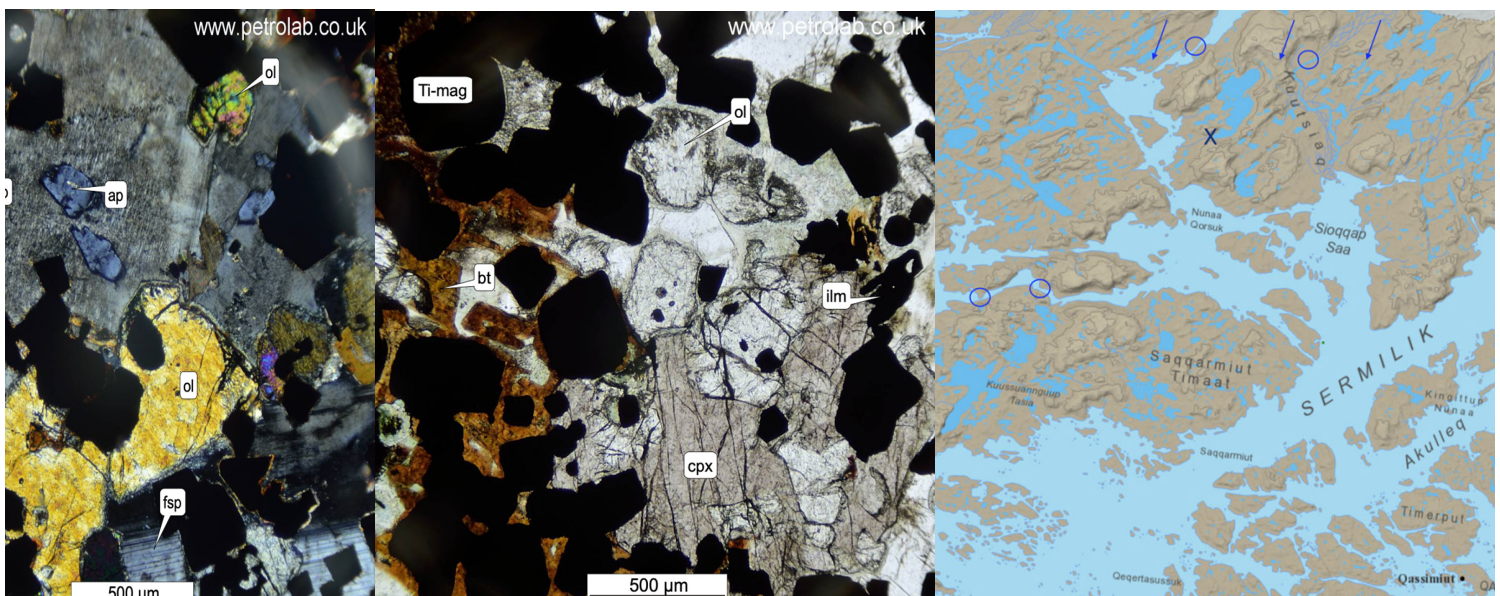
Isortoq development envisions the construction of a Milling and Magnetic Separation Facility requiring 20 mWh, producing a primary Ti-V-Femag concentrate. The use of a 7 kms conveyor system will replace trucking and cable or battery powered diggers and loaders will eliminate diesel.

The application of Olivine for carbon sequestration within a tailings facility will transform Isortoq into a carbon negative mine.

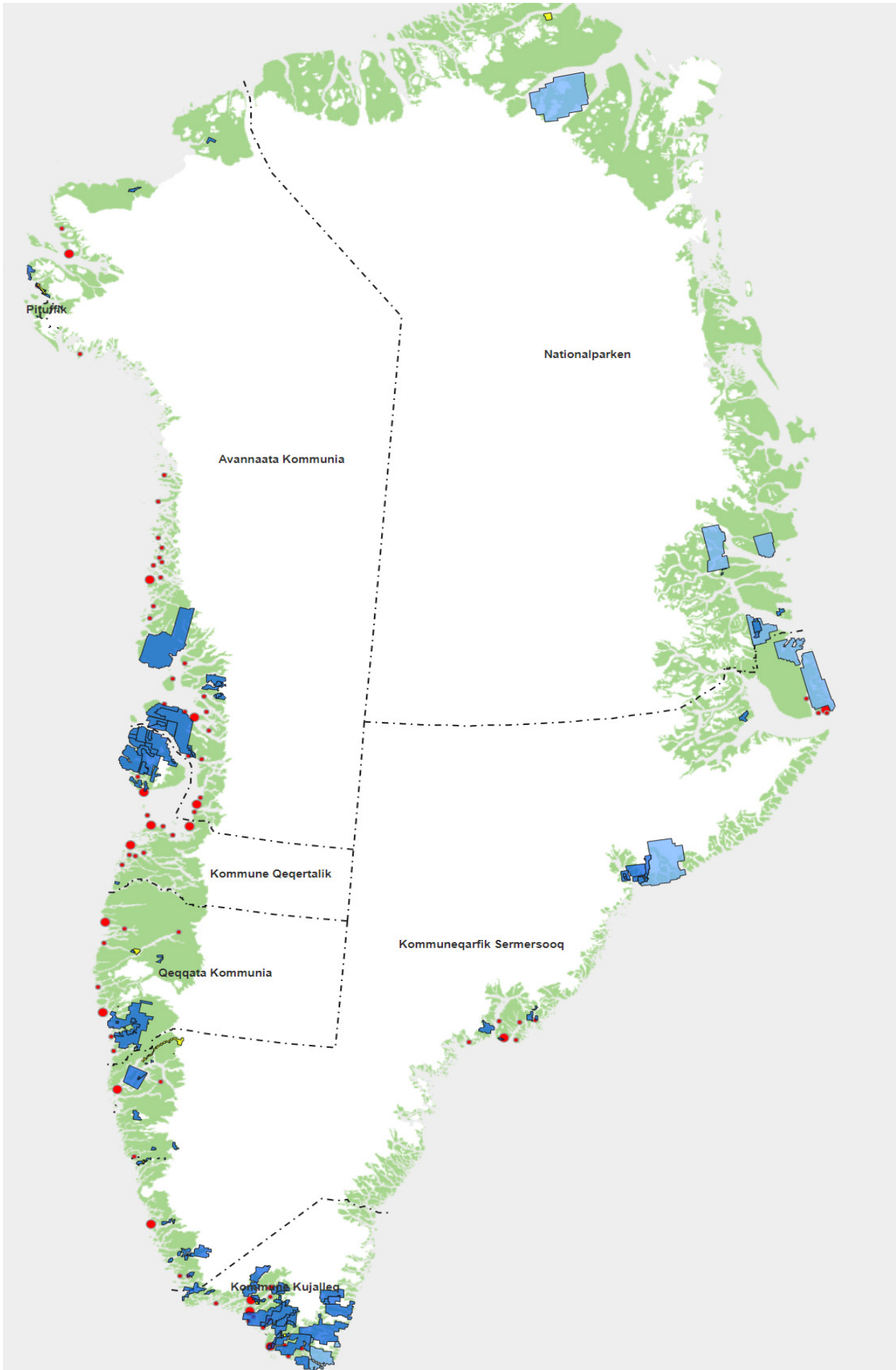
Financial Estimates

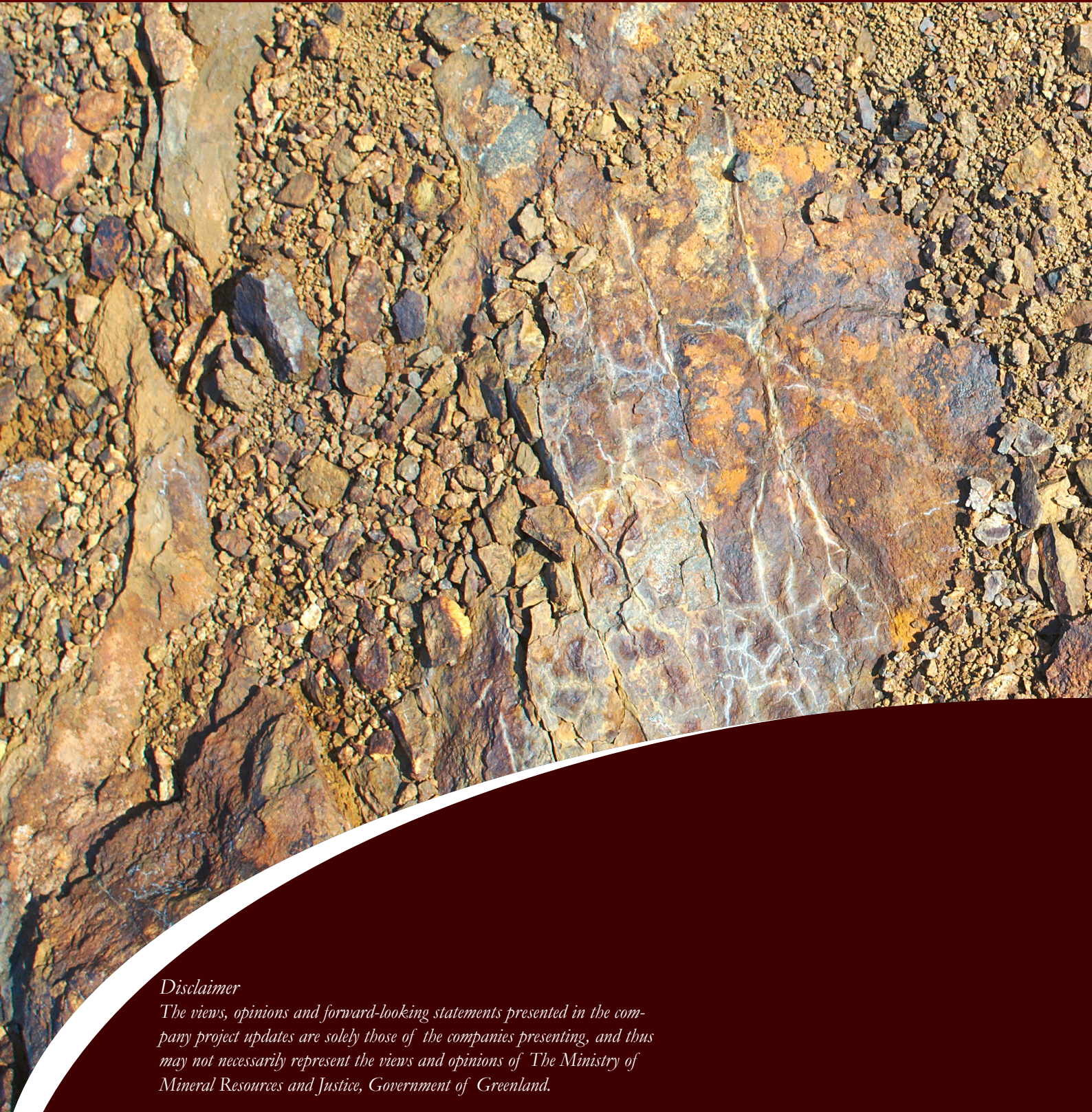
Initial estimates including a 40% contingency suggest a CAPEX of \$190 m and OPEX of \$32 tonne of concentrate. Resource 500 uses a ten year average commodity price for the TVM concentrate and discounts it by 40%. Modelled results are a \$540 m NPV and 42% IRR.

www.resource500.com



Current distribution of mineral licences in Greenland





Disclaimer

The views, opinions and forward-looking statements presented in the company project updates are solely those of the companies presenting, and thus may not necessarily represent the views and opinions of The Ministry of Mineral Resources and Justice, Government of Greenland.

Ministry of Mineral Resources and Justice

Imaneq 4, P.O. Box 930

Nuuk, Greenland



www.govmin.gl



asn@nanoq.gl



+299 34 68 00



Mineral Resources Authority

NAALAKKERSUISUT
GOVERNMENT OF GREENLAND

