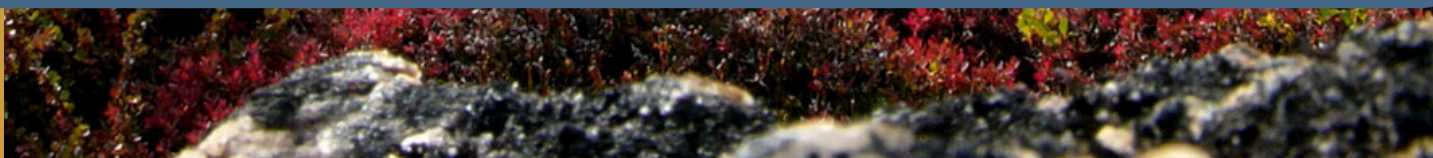




Rare Earths Mining in Kringlerne, Greenland

Critical Factsheets on Mining Projects



This factsheet is part of a series of case studies on contested mining projects, to shed light on the reality of local populations and the environmental impacts by extractivism.

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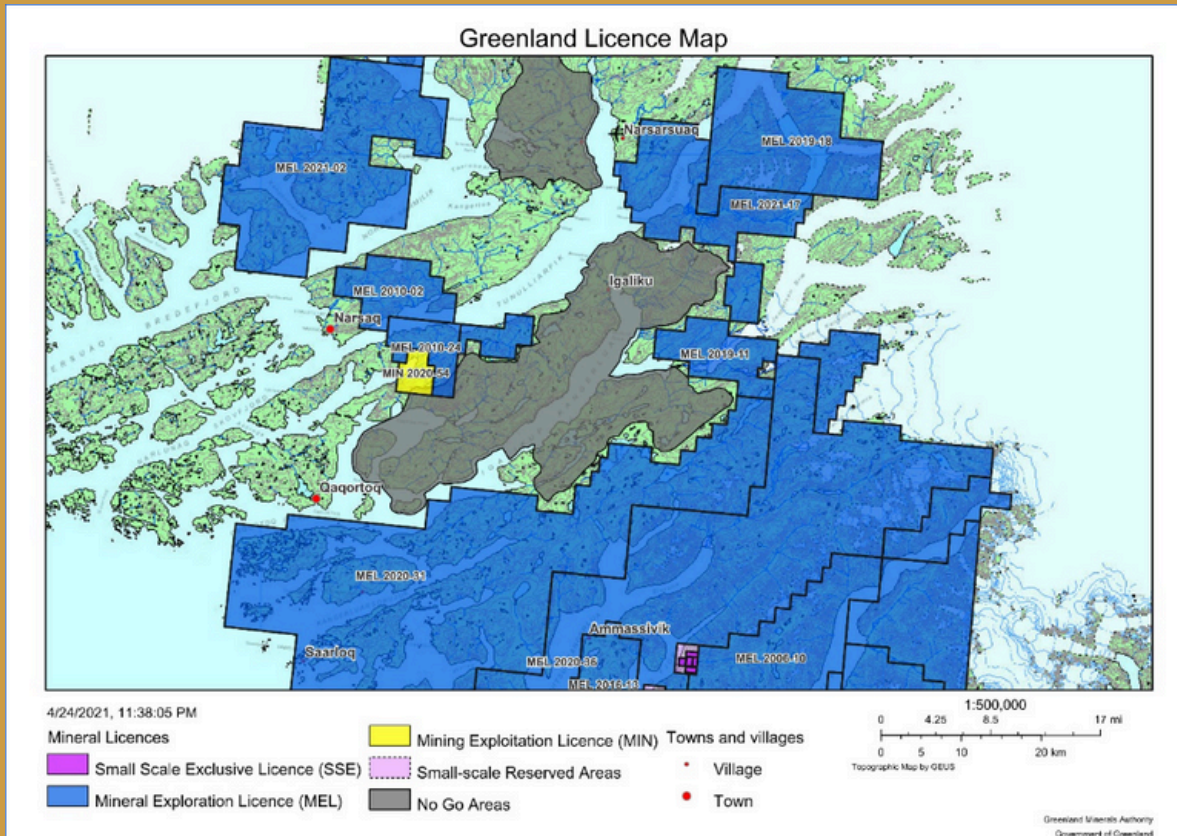
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1. BASIC INFORMATION

Municipality: Kujalleq Municipality, South Greenland
 Companies: Tanbreez Mining Greenland A/S
 Minerals: Various rare earth elements incl. feldspar, eudialyte, arfvedsonite
 Status: On hold

Concession and mining area:



Mineral licenses in Kommune Kujalleq. MIN 2020-54 (yellow area) marks the Kringlerne exploitation license area. Source: Greenland Minerals Authority, April 2021

2. SUMMARY

Kringlerne in South Greenland, locally known as Killavaat Alannguat, allegedly contains the biggest deposit of rare earth elements in the world. The proposed mining project is owned by the Australian junior company Tanbreez Mining Greenland A/S (currently in the process of being taken over by Critical Metals Corp.), which has been granted an exploitation license, but presently lacks sufficient funding to continue with the project. If implemented, the project will have a significant negative impact on the environment and potentially threaten the nearby Kujataa UNESCO World Heritage Site. South Greenland is the lushest and most fertile part of the country and has been home to farming culture in Greenland for over 1000 years. Kujataa is thus considered a cultural landscape, because of the inhabitants' close connection with the land.

3. PERMITTING HISTORY & EIA STATUS

The licensing of the large-scale Kringlerne mining project has been fraught with problems. The approval by Greenland's Mineral Resources Authority was based on the EIA public consultation dating back to 2013, with documentation that is outdated by now. The documentation, for instance, did not include the 2016 addendum to the EIA report, and did not mention any plans for a chemical separation plant, which was stipulated by former authorities. According to a report from a Danish law firm, the plant would have a daily consumption of up to 2,000 tons of sulphuric acid. Also, the EIA report from 2013, only describes ten years of mining operations (five years for each of the two open mine pits) whereas the exploitation license allows 30 years of operations. This means that not all impacts throughout the operation (or long-term) are taken into account. Lastly, the Mineral Resources Authority granted the exploitation permit before a plan for the operation and closure of the mine has been approved. In short, the exploitation permit of the Kringlerne project is based on incomplete and incorrect information.



Qaqortoq, the nearest town from the mining area. Photo: [Gregor Julien Straube](#)



4. PROJECT SUSTAINABILITY

A number of highly critical position papers were submitted and presented at the EIA hearing by Greenpeace Denmark, the National Association of Greenland's Municipalities (KANUKOKA), Kommuneqarfik Sermersooq (neighbour municipality to Kujalleq Municipality), Avataq, DCE/GN, DTU Wind Energy and WWF in Greenland. They provided evidence on several problematic aspects of the Kringlerne mining project, including:

- 1) The uncertainty regarding the annual mineral production and the de facto life-span of the mine;
- 2) Water pollution by lead and other heavy metals, which could spread from the planned storage facility (for tailings and waste rock) in Foster Lake to rivers and fjords;
- 3) Pollution by fluoride can have large-scale damaging impact on the environment;¹
- 4) Impacts by dust and particle emissions, which were insufficiently assessed. According to Kommuneqarfik Sermersooq, mining operations will increase the quantities of dust in Narsaq town by 43 per cent and in Qaqortoq by 9 per cent. In addition to lead, the dust will contain uranium, thorium, zinc, arsenic and other toxic elements;
- 5) Significant CO₂ emissions from the mining project, as described in the EIA report, equaled 3,5 per cent of Greenland's total CO₂ emissions in 2012.

During the public hearings, it was revealed that compounds containing fluoride are found close to the mine site. However, fluoride was not covered in the tests carried out before the publication of the hearing material.

Due to these environmental risks, the Outstanding Universal Value (OUV) of the nearby Kujataa World Heritage Site could be under threat from the Kringlerne mining project. Furthermore, the cumulative impact by all the mining projects in the region would exacerbate the environmental harm. This creates the obligation to carry out a Heritage Impact Assessment (HIA) by Kringlerne and the other mining projects to assess the combined consequences of mining on the Kujataa World Heritage properties.

The organisations above also drew attention to various negative socio-economic impacts that the mining project would likely cause. South Greenland is the lushest and most fertile part of the country and has been home to farming culture in Greenland for over 1000 years. Because of the inhabitant's' connection with the land, Kujataa is known as a cultural landscape. The Kommuneqarfik Sermersooq pointed out that the project will harm agriculture in the region, because of the dust emissions from the open pit mine, which could spread over a large area and impact food production through bioaccumulation in livestock, wildlife and fish.

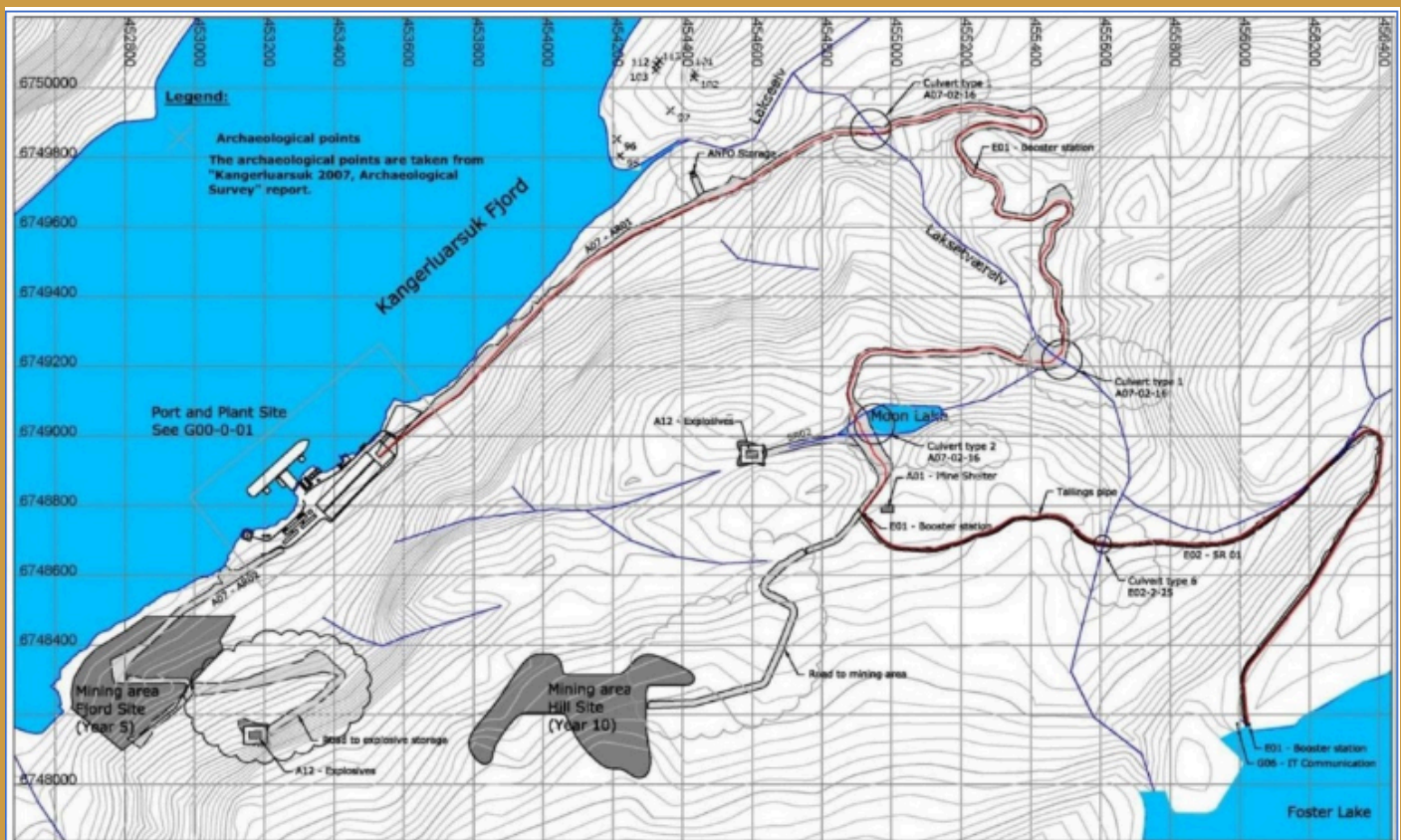
[1] During the public hearings, it was revealed that compounds containing fluoride are found close to the mine site. However, fluoride was not covered in the tests carried out before the publication of the hearing material.

5. STAKEHOLDER ENGAGEMENT

The project is relatively distant from inhabited areas, so there has not been much engagement of local populations. However, various communities (Kommuneqarfik Sermersooq as well as the National Association of Greenland's Municipalities), and civil society organisations have expressed their concerns (see above). Unfortunately, the social and environmental concerns expressed by all the organisations during the public hearing in the EIA process were structurally ignored. Only the plans for the chemical separation plant were scrapped, because the owner of the mining project (Tanbreez Mining Greenland A/S) admitted that it would cause excessive pollution.

6. TECHNICAL FEASIBILITY

Tanbreez Mining Greenland A/S is a small family-owned junior mining company, which does not have the technical capacity to develop and operate a multi-billion mining project of this technical complexity (with the potential to become the biggest industrial project in the history of the Danish Kingdom). As with most mining projects in Greenland, all infrastructure has to be built from the ground up (see the project layout below).



Description of the overall design of the Kringlerne mining project with two open pit mining sites, tailings deposition in Fostersø (Foster Lake) and the crusher, separator and all other facilities located at the fjord. Map: Tanbreez Project, EIA, August 2013.

7. FINANCIAL FEASIBILITY

Tanbreez Mining Greenland A/S does not possess the financial capacity to develop and operate the mining project. The objective of Tanbreez is to increase the value of the project and then to sell it to a large international mining company, that does have the technical capacity and necessary funding to develop and operate the mine. Kringlerne is currently in the process of being taken over by the Australian-American company Critical Metals Corp, which currently also does not have the financial resources to realise the project.² In order to be developed, the Kringlerne mining project needs considerably more investment, thus the lobbying by the two companies, particularly in the U.S.

8. COMPANY ESG PERFORMANCE

Tanbreez Mining Greenland A/S does not have a track record when it comes to ESG performance, given the fact that it has no prior experience with mining. The company has only appeared in the news because of its attempts to undermine the sovereignty of Greenland. The company's owner has met U.S. officials weeks before Trump's offer to buy Greenland in 2019.

Currently, Tanbreez is in the process of handing over ownership of the Kringlerne mining project to the Australian-American company Critical Metals Corp. The management of Critical Metals Corp is almost identical to another mining company, European Lithium, which has been fined by The Austrian Financial Market Authority three years in a row because of market manipulation, among other offences. Greenlandic law does not grant permits to a company that has been fined for breaching regulations.

9. ADDITIONAL SOURCES

EURAD deliverable D9.17 ROUTES – Implementation of the ROUTES ICS action plan second phase. Transparency in establishment of national radioactive waste facilities: Criteria for good transparency, national case studies and recommendations, p. 90-99.

[2] Critical Metals Corp also does not have sufficient capital to develop the Wolfsberg project, which is a much smaller mining project. Publication of the hearing material.



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