AREA REPORT

Mining policy in Greenland

By Knud Sinding

In recent years, following the closure of the Black Angel mine, Greenland has exerted great energy to attract exploration investment, and has extensively revised its mineral policy to further this goal. This article summarises the main points of this exercise and highlights those aspects of the Greenlandic policy changes which carry important lessons for other areas or countries hoping to attract investment in mineral exploration and production.

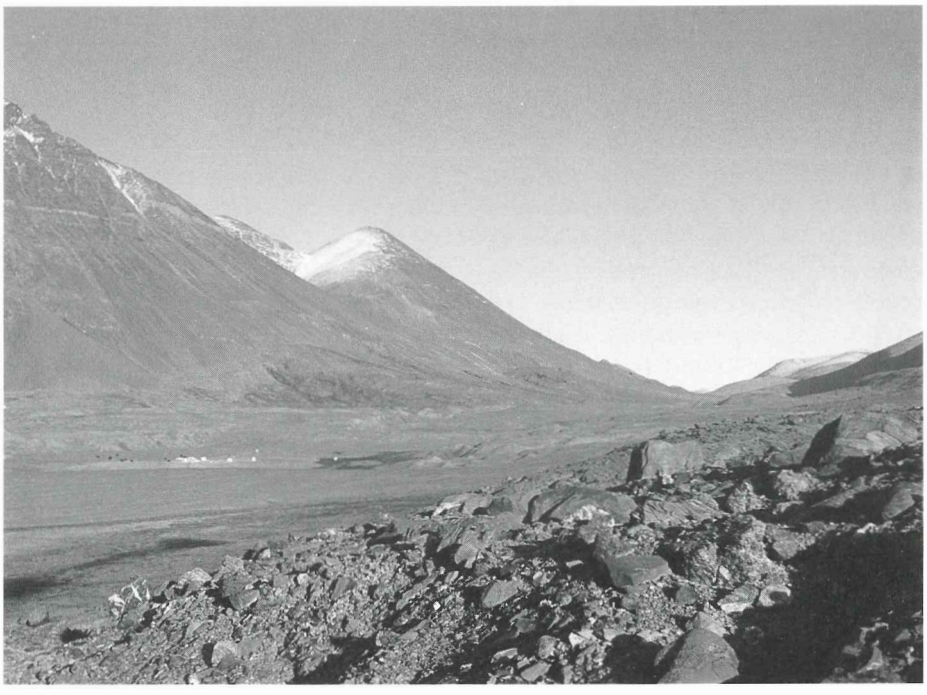
Greenland has in the past seen considerable mining activity, although this was located in only four places. Outside Greenland the most famous mine was undoubtedly the Black Angel mine operated from 1973 to 1990 by Cominco, Inc, and from 1984 by Boliden AB. Less known but of greater value was the Cryolite mine at Ivituut on the southwest coast which operated from the mid 1850s to around 1987, when the last waste dumps had been reprocessed.

Greenland is a Danish territory with extensive self-government. Its status as a Danish possession can be traced back to the colonisation by Norse vikings from Iceland in medieval times. However, modern history is often taken to begin in 1753, when the first Danish missionary landed in Nuuk, the present capital of Greenland.

The island remained a colony until 1953, when a new constitution in Denmark sought to integrate Greenland with the rest of the country (i.e. Denmark and the Faroe Islands). As time went by, this arrangement, where many decisions were made by the central government in Copenhagen, became increasingly unpopular with the Greenlandic people. Starting in the mid 1970s negotiations led to the introduction of self government or Home Rule, covering most areas of government. The exceptions were primarily foreign policy, monetary policy and justice. Management of non renewable resources was a critical issue, never completely resolved. The Home Rule agreement provides for a form of joint decision-making, where a committee of Danish MPs and Greenlandic MLAs act and advise on mineral policy issues. Although all minerals related decisions are formally made by agreement between the governments of Greenland and Denmark, it is a well established fact that the "joint Committee" plays an important role in determining policy.

The most recent development in Greenland's mineral policy has been the enactment of new mineral resource legislation in 1991, and the subsequent publication of standard terms for prospecting, exploration and mining permits.

In terms of actual mineral production Greenland was an early target, despite the extreme environment. Mining of base metals and cryolite at Ivittut was first



Platinova's zinc project in North Easterly Greenland, the Citronen fjord project. The camp can be seen in the center of the picture.

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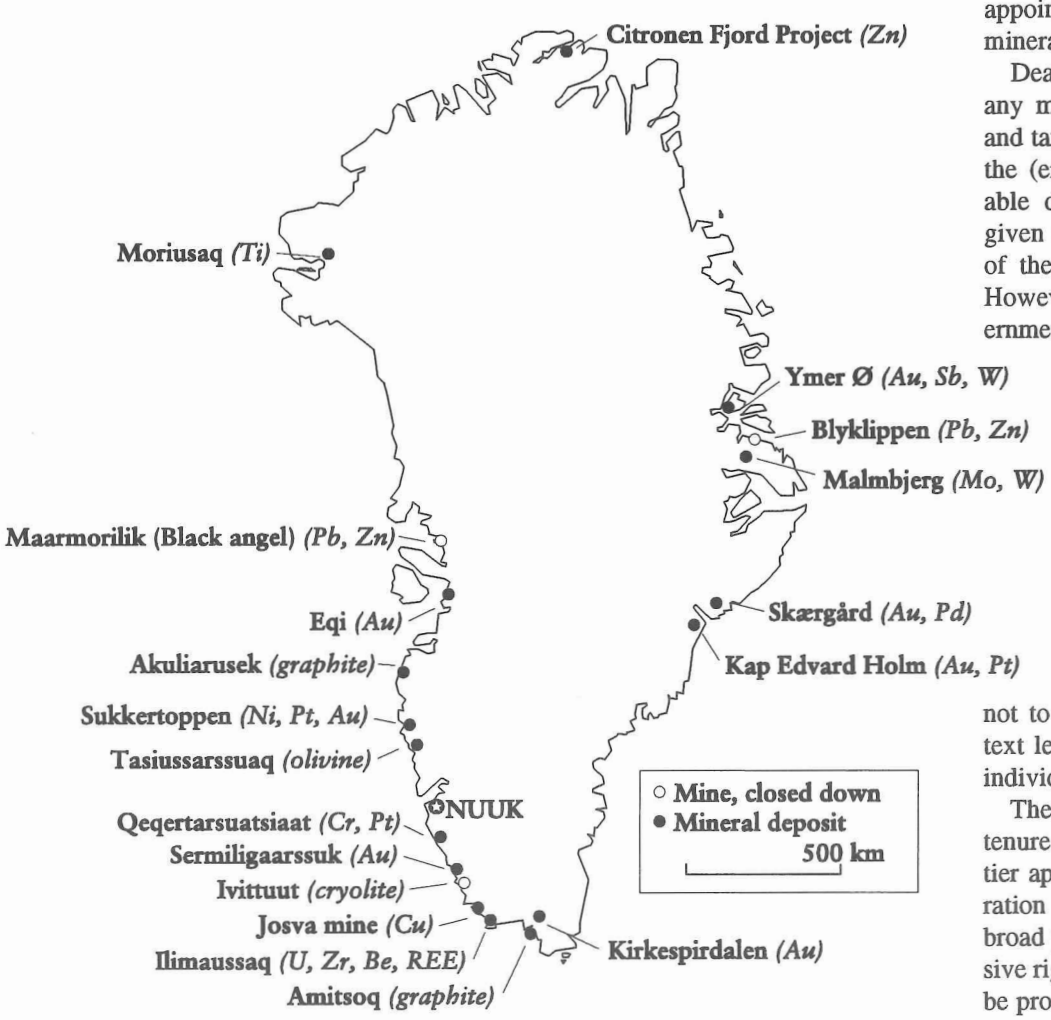


Major mineral deposits and former mines in Greenland 1993

contemplated in the 1850s, and really began in the 1860s. This mine in fact produced a stable source of government income and over the years, as the mine matured, the government of Denmark took an ever increasing share of the net profits from this mine. Total Government revenues have been roughly estimated at 3.86 DKK billion measured in 1985 prices (7 DKK equals approx. 1 USD).

The other mines in operation have included a state owned coal mine which never made a profit, located on Disko Island, and two lead-zinc mines. While the Black Angel was by far the largest of these the Mestersvig mine on the East coast was far smaller and operated in more extreme conditions.

The 1965 and 1991 Mineral Laws

The first mining law for Greenland was enacted in 1965. Prior to that all mineral rights had been issued on a discretionary basis under regulations dating from 1785, which gave exclusive mineral rights to the Royal Greenland Trading Company. Increased mineral exploration activity in the 1950s highlighted the need for more comprehensive legislation in this area. A commission of experts was appointed and its report proposed a draft mineral law in 1963.

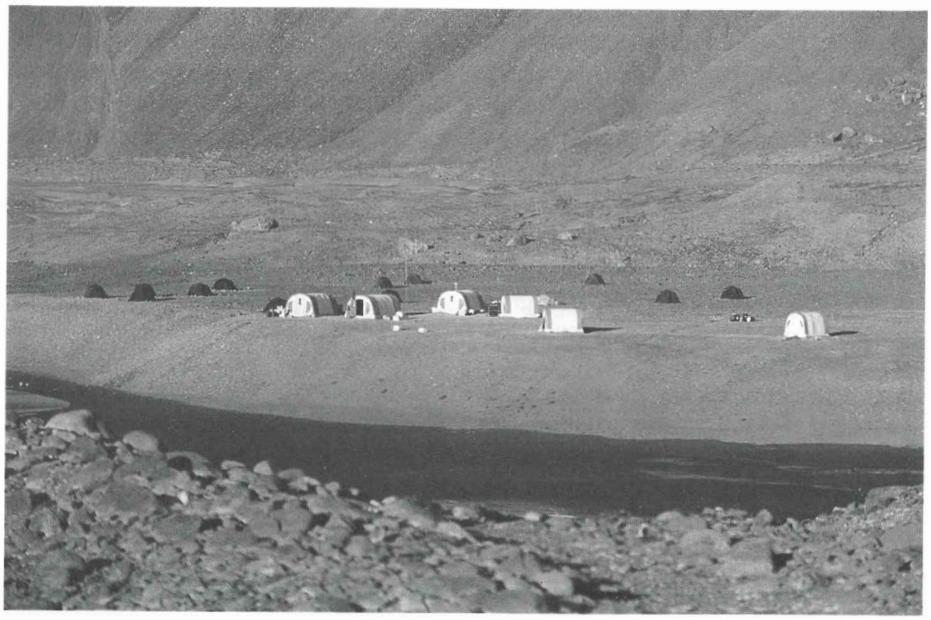
Dealing with the two key elements in any mineral legislation, mineral tenure and taxation, this proposal was based on the (erroneous) assumption that a suitable determination of taxation of any given mine could occur when the value of the one body had been established. However, the solution proposed that government should own half of any mining company but be paid dividends only when all development costs had been recovered, elegantly bypassed the valuation problem altogether. Compared to many other mine taxation systems such as royalties or corporate taxation this was also much less intrusive into operating decisions. This was not to be, however, since the final law text left all such details to be settled in individual mining concessions.

The other key element was mineral tenure. The experts' opinion was that a 3-tier approach was suitable. Early exploration or prospecting should require a broad permit which conferred no exclusive rights. More advanced stages should be protected by an extensive exploration concession, specifying the detailed conditions for mining, including, as noted, taxation. A number of routine matters were also set out in the final law text.

The Commission had made two crucial mistakes in its report, although elegantly bypassing one of them with the tax proposal. The other mistake was to separate the exploration right from the mining right necessary to take advantage of any discovery.

In addition to the two major problems noted above, a further problem developed after 1979, when Greenland became a self-governing territory. As part of the compromise surrounding the Home Rule legislation it was agreed, reluctantly by Greenland, that any resource revenues

The exploration camp at the Citronen fjord project.



would be used to finance the net unrequited transfers to Greenland. As a result, Greenland had no incentive to welcome exploration.

Such an incentive was introduced in the early 1980s, when a concession to explore for oil and gas in Central East Greenland was issued. This concession provided for state company participation, to be carried by the private partners. The state company was to be jointly owned by Denmark and Greenland.

The practice of requiring options for up to 50 per cent state participation spread to metallic mineral exploration in the mid-1980s. No legislation was passed to authorize this policy, and it was realized in the late 1980s that the option policy might well inhibit investment. Following an agreement reached in 1988 to share equally up to 500 million DKK of annual mineral revenues, the need for the participation of a state company was largely eliminated.

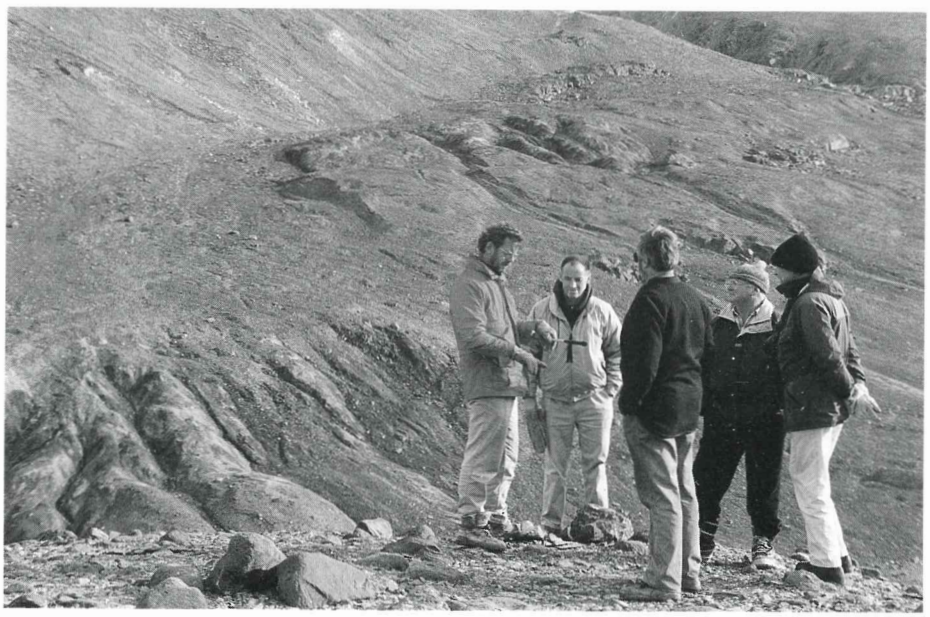
The 1991 Mineral Law departs from the mistakes of its predecessor and establishes more secure mineral rights which are available as soon as an exclusive exploration permit has been issued. A prospecting permit is still available but in principle it confers no rights to any discoveries made.

The exploration permit can either be separate from, or combined with, a production permit. In the former case the holder has the right to obtain a production permit, while in both cases a permission to begin production requires submission and approval of development and operating plans and procedures.

In the other key area, mineral taxation, some improvement has also been made. The 1991 Mineral Law enables the government to impose a form of land rental fee and, if so specified in the exploration/production permit, a production charge of some indeterminate size. The 1991 Mineral Law has been supplemented by sets of rules and regulations, as well as standard texts for prospecting and exploration permits which do not refer to production charges.

Taxation has instead been moved to the Greenland income tax legislation which means that mining is subject to the standard corporate tax rate of 35 per cent, with unlimited carry forward of losses. Deductions available for calculation of taxable income includes the normal items, while plant and equipment may fully be depreciated in the year of purchase.

The Mineral Law of 1991 and accompanying policies constitute considerable improvements relative to the situation before 1991, primarily because uncertainty about tenure and tax liabilities has been greatly reduced.



Cumbersome administrative aspects remain, however, and the new mineral policy leaves a considerable number of unanswered questions. These include the question of whether windfalls will be subject to taxation if they occur, and, more importantly, a range of issues related to how mineral resource benefits are to be used and how administration can be more responsive to the needs of the exploration investor. In the longer term an agreement must also be reached by Greenland and Denmark concerning the future organization and location of the administration of mineral activities. A detailed proposal for solving these problems has been made (Sinding 1994).

Control is the fundamental issue from which most of the problems of Greenland's mineral policy spring. Roughly speaking, Denmark is interested in revenues which can offset its unrequited transfers to Greenland. Greenland, on the other hand, has no incentive to welcome mineral activity (if they can maintain the level of transfer unchanged), unless the country receives a share of the benefits. One element of these is direct control over mineral activities. At present, the administration is in the hands of the Danish Minister for Energy, while Greenland wishes to transfer the administration to Home Rule control, and to locate it in Greenland.

For both parties it is necessary to realize that such a transfer would just turn the situation on its head without solving the conflict. A transfer would give Greenland the informational advantage and Denmark would be in the position of Greenland!

The prudent solution involves more sharing, as long as both parties have an interest. Thus it should be possible to place the administration under joint control, regardless of where the administration is located physically. If the conflict could be resolved in this way, albeit temporarily, the incentive for Greenlandic politicians to require a voice in individual allocations of exploration and production permits would diminish, leaving time for them to consider the more overall aspects of mineral policy.

Implications for emerging mineral countries

The changes in policy and remaining problems experienced in Greenland have a number of implications for other countries seeking to attract exploration investment in order to develop their resource potential. They can be separated into two very distinct groups, taxation and mineral rent, and property rights.

Capturing part of the mineral rent will always be a government objective given that this rent is the residual after all payments to production factors (including a risk premium). While there are accounting problems in defining exactly what constitutes mineral rent, it is clear that it is never possible to capture all of it for the state. The purpose of the mine taxation system is to capture a reasonable share of these rents. In order to do so, however, the system must be designed to cope with the cyclical nature of the mineral industries. This rules out some tax instruments such as royalties (i.e. production fees) and ordinary corporate taxes, and favours taxation systems able to capture sudden peaks in income without affecting production decisions.

It may be argued that having a mechanism in place to deal with such windfalls is preferable to a system where excess profits are not taxed, even if the latter will appear more attractive to investors. The reason is that investors can be expected to be rational assuming that windfalls will be taxed if they occur, and adjust their decision-making accordingly.

The other group of issues is property rights. It is generally acknowledged that private property rights promote efficiency in production. This also applies to minerals once they have been discovered. The fact that investments are necessary to find new mineral deposits means that the timing and content of mineral tenure rights are of great importance. Traditionally, mineral tenures have implied a right to mine, although subject to certain conditions. The ever growing importance of environmental protection has influenced the quality of mineral property rights by introducing stringent tests on project suitability after very considerable sunk costs have been incurred.

A large part of the uncertainty caused by environmental uncertainty could be reduced if the basic decision on whether or not mining is desirable in a given area is made before exploration proceeds. Further reductions in uncertainty could be achieved if some general environmental regulations are in place when exploration starts.

This is not to say that all countries should have identical environmental regulations, or that standards from developed countries should be imposed on less developed countries who may want to value environmental goals in a different way.

Summing up

The case of Greenland is distinct from most other emerging mineral investment-hungry countries as a result of the two distinct claimants to residual incomes from mineral extraction. In this situation the best way of reducing incentives for strategic behaviour by the parties is to share decision-making more equally and to acknowledge that such sharing is necessary as long as both Greenland and Denmark have strong economic interests in the mineral sector.

In a more general sense, such problems are rare and the questions of greatest importance are whether a plausible taxation regime and an efficiency promoting property rights structure are in place. Furthermore, in the longer term the investments into which mineral revenues are channelled are of great importance. ■