



MINEX 26 · SEPTEMBER 2004

Greenland as a gold producing country – Official opening of the Nalunaq gold mine



The Nalunaq mine portal

The 26 August 2004 was the official opening of the Nalunaq Gold Mine A/S in South Greenland. This event has been under preparation for some time, and it has been thoroughly covered by MINEX (see MINEX Nos. 24 and 25). Extracts from the inaugural speech by Minister Jørgen Wæver Johansen are presented below as they demonstrate the mine's importance for the development of Greenland's mineral resources.

“Today marks an important milestone in the development of contemporary Greenland. Nalunaq Gold Mine is Greenland's first gold mine, and also the first new mine in the history of our Greenland Home Rule. Congratulations Nalunaq, congratulations Greenland and congratulations Nanortalik with a new industry and a new workplace for many. Those of us who have followed the project over the years, know how much work has been done and how many resources have been applied to prove, that right here – in Nalunaq – there is enough gold to open a gold mine, with good profits and with a good number of workplaces.”

On behalf of the Government of Greenland I would like to wish you, your owners and your partners all the best possible of luck – with running the mine and not least with gold prices. I allow myself to see this official opening of Nalunaq Gold Mine as a symbol of hope for the future of Greenland. Our country is moving towards new challenges and new times, where the wise exploitation of our mineral resources will be an important part of the basis of a sustainable economy in Greenland.

It is important for me to say that we in the Greenland Government are pleased with the good co-operation, we have had with the company during the inception of the mine. Hopefully, this is only the beginning of a long partnership. In the Greenland Government, we are convinced that the future will bring about many other projects to a point, where the company will take the important and decisive step to apply for the exploitation of a mineral deposit.”

See the entire speech at the home page of the Greenland Government:

<http://dk.nanoq.gl/enhed.asp?page=enhed&objno=522>

Nalunaq Gold Mine in brief

Nalunaq is a high-grade, narrow-vein gold deposit hosted in a ductile shear zone. The gold is associated with a ductile-brittle quartz vein, measuring from 0.1 to 2.0 metres in thickness with an average of 0.7 metres. Nearly 500,000 tonnes of measured and indicated resources, with an average grade of 26 g/t at a width of 1.2 metres, have been outlined to date in a small portion of the potentially mineralised structure.

Resource definition is a challenge at Nalunaq. The steep terrain requires careful preparation of platforms for the drill rig and all drill moves have to be helicopter supported. A total of



Port facilities at Nalunaq

90 diamond drill holes have been drilled from 35 pads (drill-sites), totalling approximately 14,230 metres of core. Moreover, drilling does not allow definition of resources, only structure, because of the high nugget effect. Systematic sampling in underground drifts is required to define bankable resources.

In total 2,712 metres of underground development has exposed the Main Vein along strike in four levels and up dip in 22 connecting raises between levels 300 m and 450 m. The consistent structure, followed in outcrop to more than 1200 m elevation, is supported by the underground development and suggests that the mineralised shear zone may continue throughout the entire mountain, providing a sizeable upside potential.

Determined exploration activity carried out during the field season – 30 exploration licences in force

The number of licences now in force represents a dramatic increase of around one third compared to the end of 2003 – an increase welcomed by the authorities. BMP is supporting this development with geophysical and geological mapping surveys and detailed investigations of some prospective areas of Greenland. Some of the recent



activities by the Geological Survey (GEUS) have already been reported in the newly issued publication: *Review of Survey Activities 2003 (Geological Survey of Denmark and Greenland Bulletin 4, 100 pages,*

2004). In 2004 exploration efforts are again focusing on diamonds and gold, however, commodities like nickel, platinum-group metals, niobium-tantalum, coloured gemstones and selected industrial minerals are also being considered.



Collecting of till samples near the Sarfartoq licence (GEUS)

Diamond exploration is mainly being carried out in Central West Greenland from where one company, Hudson Resources Inc. ("Hudson") has released the following news: Today (15 September 2004) Hudson has made the largest Greenland diamond find to date and has decided to expand its license area. During July, Hudson conducted a field program, which included the collection of approximately 675 kilograms of kimberlite material and till samples. A total of 120 diamonds greater than 106 microns in size were recovered from one sample location ("Garnet Lake") in West Greenland. Of these diamonds, nine were classified as macrodiamonds (defined as remaining on the +0.5 mm square mesh sieve). The three largest diamonds measured 1.90 x 1.70 x 1.42 mm; 1.98 x 1.34 x 0.98 mm; and 1.56 x 1.40 x 1.16 mm. This 107.9-kg kimberlite sample also contained another 31 microdiamonds in the 75-micron fraction. The Garnet Lake samples and a nearby sample yielding two diamonds were collected from the Sarfartoq Exploration Licence area. Through a joint venture with New Millennium Resources NL, of Perth Australia, Hudson has an 80% interest in all minerals, except niobium and tantalum. As a result of these findings, Hudson has made an application to acquire the remaining 89 km² of open ground to the north of the Garnet Lake area. Hudson now has an interest in 1,580 km² (390,425 acres) of exploration ground in the Sarfartoq region of West Greenland.

A Dighem Mag-EM geophysical survey conducted for Hudson by Fugro Airborne Surveys Corp. was recently completed. The survey was conducted at 100 m intervals for a total of approximately 2,000 line kilometres. While only a small fraction of the data has been analysed to date, it appears as if one significant low frequency EM anomaly exists within the lake on strike with the diamondiferous kimberlite dykes identified by Hudson during the 2003 field season.

"We are extremely pleased with the results from the Garnet Lake area" stated James Tuer, president of Hudson. "These results really confirm what we have always thought possible for the region – that it has the potential to host a world-class diamond mine. The really exciting thing about the find at Garnet Lake is that it validates our belief that there should be further occurrences like this in the region based on the extent of the kimberlite indicator mineral chemistry found in the tills. We expect to be in a position to initiate a drill program in February or March of 2005 when we can operate on the ice over the lakes."



The Crew exploration area in the vicinity of the Nalunaq mine

Gold exploration is being carried out at several locations. Crew Gold Corporation ("Crew") recently released updates on the prospecting in the vicinity of the Nalunaq gold mine. This summer's findings strengthen the view that South Greenland represents a promising gold region with a significant upside, which will probably be pursued aggressively over the coming years. The recent exploration work in the 530 km² Nanortalik concession revealed a number of new discoveries. A particularly encouraging mineral occurrence was discovered during the summer's work, consisting of more than 30 parallel quartz veins, with significant sulphide aureoles, and covering a more than 100 metres wide and several 100 metres long zone of mineralisation before being covered by the valley floor sediments. Significant extension along the strike is anticipated. This discovery may explain the exceptionally high background values for gold in the district. Structurally, the quartz veins form a shear-related vein system with pronounced ladder structure, indicating both left-lateral and right-lateral wrench in various parts of the systems.

A new license, the Akuliaruseq license area, acquired by Crew in 2004, is particularly promising in view of its location along one of the largest crustal shear-zones recognised in South Greenland, the Saarloq Shear Zone. Last year, a sample with a high gold content was collected from this area and awarded first prize in the national 'mineral hunt' competition - the 'Ujarassiorit'.



Drill camp and heli-path at the NunaMinerals Storø project

NunaMinerals A/S ("NunaMinerals") presented its fault-related gold potential on Storø island not far from the capital, Nuuk, in the 3 September issues of Mining Journal and in a web release on 25 August 2004. The field activity has resulted in the find of a new fault zone showing VG (visible gold) in several hundred metres along strike. The new zone is close to the so-called BD-zone at Qingaq, identified in 2003. The new find indicates that the gold-bearing zones on Storø are gathered in a series of related parallel as well as cross-cutting structures pointing to a good gold potential for the area. Preliminary gold contents of 20 g/t over 2.5 m are reported. The fieldwork continues at the time of going into press.

A mine to come soon? – the Seqi Olivine project in West Greenland

As already reported in MINEX 25, this project is progressing fast. The deposit is a large, homogeneous resource of the industrial mineral olivine, and is being investigated by Seqi Olivine AS, which is owned by Crew Gold Corp. In partnership with Minelco AB, a subsidiary of Swedish iron producer LKAB, Crew is currently completing detailed engineering, following a positive feasibility study, and are planning to apply for an exploitation permit for the start of production in 2005.



Aerial view of the Seqi olivine ore body

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Drilling at the Seqi olivine deposit

Seqi Olivine AS now states that the project is feasible with little technical risk; the olivine quality is suitable for the purpose. The planned quarry design, comprising only the western half of the deposit, has a life in excess of 20 years at the specified production rate. The project is initially assuming an operating season of April to November to produce the specified 1.1 million tonnes. Extraction of the olivine will be in open pit with 15-m benches using conventional drilling and blasting. The crushing equipment allows for the initial production of almost any grade of olivine. In this context, the material quality is usually the same, only the size fraction differs. A detailed topographic survey has been conducted and 1150 assays have been carried out on samples from 22 holes drilled in 2003. The assays have shown that the area hosts very high olivine quality. Current resources of 84.3 mill tonnes at 48.1 % MgO and 0.56% LOI have been identified.

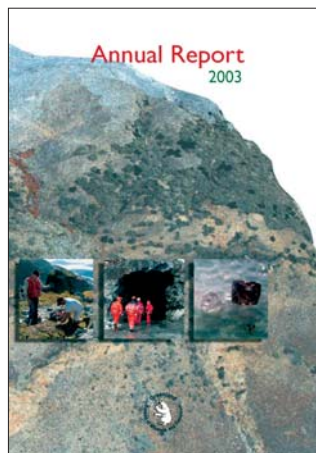
Greenland mining history preserved - the first mining museum to be established in the former mining town of Ivittuut

A mining museum in Greenland? The issue has popped up several times since the closing of the cryolite mine in

Ivittuut in 1987 after more than 130 years of mining operation. A new initiative launched by the municipality of Ivittuut, supported by the Greenland Mineralogical Society, seems to have passed from the drawing-board stage to actually setting up the premises in Ivittuut and planning the exhibits. The official opening is expected to take place during early autumn 2005. Main exhibits will display the history of the cryolite mine as well as other Greenland mining adventures.

Annual Report 2003 released

The Greenland Bureau of Minerals and Petroleum's annual report 2003 was released in June as a 16-page booklet with an informative and fact-filled overview of the year's achievements. The opening address by the minister responsible for mineral resources sums up the importance of increasing mineral exploration and exploitation.



Greenland is more than ever ready to work for attractive conditions for companies in tough competition with other countries. Greenland's geological potential for mineral resources is good, and the opening of the Nalunaq gold mine underlines that the country is a viable option for international mining investments.

Copies of the Annual Report 2003 are available free of charge and include the full story about ongoing mineral exploration activities. Please contact bmp@gh.gl to get your personal copy.

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