



## GREENLAND MINERAL EXPLORATION NEWSLETTER

MINEX 38 · December 2010

## Greenland Day 'Down Under'

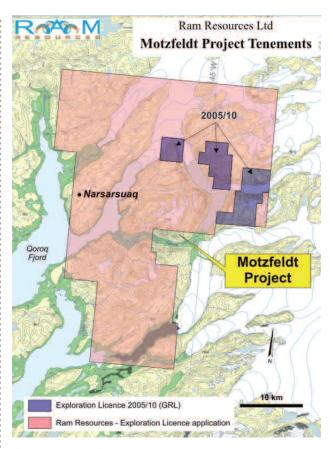
The Bureau of Minerals and Petroleum for Greenland will be hosting Greenland Day in Perth on Tuesday 7 December 2010 at the Parmelia Hilton. This conference, which in its second year, will see senior officials from the Greenland Government give an overview of the Greenland economy and showcase a range resource of focussed investment opportunities in the country. In addition, a range of Australian and international resource companies with projects in Greenland will also present their investments.

The conference program will cover a range of topics from operating conditions in Greenland and how to apply for mining licences, right through to a review of the geological environment and the potential for mineral deposits. The presentations at the Greenland Day are divided into four themes comprising precious metals, iron alloys, speciality metals and base metals.

- Precious metals such as gold are found in greenstone belts (e.g. Storø deposit), in granite-related gold (South Greenland) and in mafic intrusions (Skaergaard deposit)
   the latter deposit contains equal amounts of palladium and platinum.
- Iron alloys (Fe, Ti, V, Cr, Mo, W) are illustrated in presentations concerning Banded Iron Formation (Isua deposit) and by the magmatic Gardar titanium-vanadium magnetite deposit.
- The speciality metals (REE, Zr, Nb, Ta) are demonstrated in talks on the Sarfartoq REE deposit, the Kvanefjeld REE deposit, the Kringlerne Zr and REE deposit and the Motzfeldt Sø Ta-Nb deposit.
- Base metals as found in the SEDEX Citronen Fjord zinc deposit will be presented.

# Australian Ram Resources - a new player in Greenland

Ram Resources Limited is an Australian company listed on the Australian Securities Exchange (ASX). The key project is the Motzfeldt multi-element (Ta-Nb-REE) Project located in Southern Greenland. The Motzfeldt Project is contained within Greenland Exploration License 2010/46 which comprises three adjacent areas totalling some 84 km² and which is shown in blue on the map. Most of the detailed exploration work to date, has been carried out in the central area of this licence. Ram has also applied for Exploration Licence 2010/09 (shown in pink on the map) covering an area of approximately 970 km² and which sur-



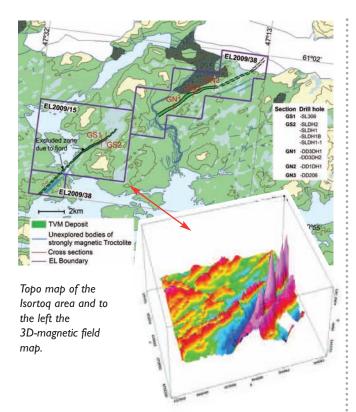
Map of the Motzfeldt area.

rounds the existing Exploration Licence 2010/46. This licence has yet to be granted.

Key objectives for the 2010 exploration programme are as follows:

- Extending the drilled area along strike at known anomalies
- Establishing an initial inferred resource from known anomalies
- Increasing knowledge of the REE potential of the deposit
- Improving the understanding of the geochemical relationships which will assist in defining higher grade zones
- Follow up surface sampling and mapping to identify drill targets for the next season

The 2010 field programme will include a drilling programme of 10-12 NQ diamond drill holes for approximately 2,000 m. Ram Resources will also be cut and sample, a series of shallow trenches across known mineralised zones as presented on the company web site.



### The Gardar Project in South Greenland demonstrates very large resources of Fe, Ti and V

Hunter Minerals Pty Ltd released the following information to Minex News regarding a hitherto unknown magnetite-rich deposit in South Greenland, licenced since 2004. The basic background for this discovery was inspired by the location of the Voisey's Bay nickel-copper deposit, Labrador which is associated with troctolite magmatism. Environments in Greenland with possible similar mineral accumulations have often been speculated to be the Proterozoic Gardar Province which has known occurrences of major basic intrusions and dykes.

The Gardar Project, located in the Isortoq area east of the Nunarsuit peninsula, turned out to be hiding impressive magnetic and electro-magnetic geophysical anomalies which after drilling tests were due to be magnetite-rich troctolites by graben-faulted lopolithlic intrusions.

Drilling intercepts suggest inferred resources of at least 1 billion tonnes with concentrate grades of 62.6% FeO,  $19.1\%\, \text{TiO}_2$  and  $0.32\%\,\, \text{V}_2\text{O}_5$ , divided between to subareas striking least 8 km in length in a 120 m to 175 m wide graben-faulted lopolith with thicknesses in the general range 150 m to 230 m.

A scoping study has been undertaken to acquire sufficient information for JORC code compliant resource calculations. This study includes a limited ground geophysical survey, 30 core holes totalling 4,500 m and additional test work on magnetic separation, metallurgic concentration as well as port site and power plant evaluations.

# Avannaa Resources reports drill results from its REE prospect in West Greenland

Avannaa Resources Ltd has completed a large field programme on its REE deposit in licence 2010/05 in the Karrat Isfjord region of West Greenland. Information on work during May and June 2010 that included 1740 m of diamond drilling in 10 holes at two localities, was released 8 November 2010.

The results confirm the 2007 rare earth element (REE) discovery on the Niagornakavsak peninsula (NIAQ) and the 2009 discovery at the Umiamako Nuna peninsula (UMIA). The NIAQ discovery hosts tens of million tonnes of potential REE ore. The REE mineralisation is a lithologically distinct horizon of banded carbonates hosted in an amphibolite unit of the Palaeoproterozoic Karrat Group. Maximum elevation of the ore body is 56 m above sea level and the deepest drill penetration of the ore body was to 168 m below sea level. The shape of the body is approximately tabular and core data suggests it pinches and swells with a true thicknes between 10.3 m and 32.5 m.TREO+Y typically varies between 0.8 wt% and 1.5 wt% with some layers giving up to 1.9 wt% and the average being 1.02 wt%. The proportion of HREO+Y content varies from 5.3% to 30.2% with the average being 12.8%. REE are mainly hosted by bastnaesite, monazite, allanite and other REE silicates. Within the area of drill intersections and surface exposure the body contains tens of million tonnes, with a substantial amount accessible to open pit mining.

## Tanbreez evaluates its Zr-REE project in South Greenland

The Tanbreez deposit (also known by its Danish name 'Kringlerne') is hosted in the Kakortokite sequence. This sequence is the lower most exposed part of the peralkaline Ilimaussaq intrusion, which is built up of three successive intrusive phases. Distribution of REEs in the Kakortokite deposit, which is exposed over 7 km² with a minimum thickness of 280 m, has recently been evaluated by the company. Hank Schönwandt, company representative, summarises (BMP/ GEUS Workshop 2010) the project:

"A floor sequence is exposed on the south side of the Kangerluarsuk Fjord and consists of a rhythmically layered rock called Kakortokite. Eudialyte together with the other rock forming minerals appear as cumulus phases in the Kakortokite. Eudialyte is a Na-rich zirconosilicate with varying amounts of other elements including REE. The composition of eudialyte sensu stricto (ss) in Kakortokite is a Ca- and Fe-dominated species".

The whole Kakortokite sequence is about 280 m thick of which the lower part shows a spectacular layering with 29 units each composed of a black, red and a white layer. The

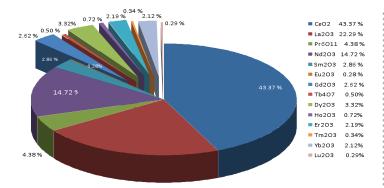


Diagram of the Tanbreez commodities in the kakortokites.

rockforming minerals are alkali feldspar, nepheline, eudialyte and arfvedsonite. The white layer is enriched in alkali feldspar and nepheline, the red layer in eudialyte and the black layer in arfvedsonite. Layering reflects the colour of the dominant minerals. The sequence merges upwards into the Lujavrite series of which the lowest unit is a green aegirine Lujavrite which through a transitional zone is followed by a black arfvedsonite Lujavrite'.

"Over the years different types of investigations on samples representing the whole stratigraphy of the Kakortokite has concluded that no cryptic variation has been found in the cumulus minerals and consequently surprisingly little change occurs in the mineral composition of the Kakortokite. However, a much stronger fractionation trend has been reported from the overlying lujavrite.

"As eudialyte ss is by far the most common Zr-bearing mineral in the Kakortokite and of the cumulus minerals the only REE-bearing mineral therefore a linear correlation would be expected between  $ZrO_2$  and rare earth oxide. More than two thousand samples representing 14 drill holes, totaling 2148 m, covering the border zone and the lower part of the Kakortokite stratygraphy clearly shows a linear correlation between  $ZrO_2$  and niobium, yttrium as well as with heavy and light REEs). The diagram demonstrates the distribution of the total REE (except Y) in the Kakortokite drilled and is also the likely distribution of REE in the whole of the deposit" concludes Hank Schönwandt.

## Greenland Minerals & Energy Ltd outlines the Kvanefjeld multielement project

Greenland Minerals and Energy Ltd is a mineral exploration and development company with a focus on Greenland. The Company's flagship project is the Kvanefjeld rare earth elements (REEs), uranium, and zinc project located near the town of Narsaq in south Greenland. Kvanefjeld is the first multi-element resource defined within the Company's broader project area over the northern Ilimaussaq complex. With a resource that contains 4.7 M tonnes of rare earth oxide (REO); 283 Mlbs  $U_3O_8$  and 1M tonnes Zn. Regional exploration has

unearthed new multi-element zones that have the potential to substantially increase the resource inventory further as reported on the Company's website.

## NunaMinerals identifies high grade gold zone in South Greenland

NunaMinerals 10 November 2010 was pleased to announce that further to the stock exchange release in July 2010 on the positive Phase 1 exploration results for its gold exploration programme in South Greenland, additional follow-up results from Phase 2 exploration, notably:

- Very high gold grades up to 1013 g/t gold in multiple quartz veins
- Host granitic rocks return values up to 12.1 g/t gold.

**NunaMinerals** also announced 25 October 2010 the results from the carbonatite-hosted REE projets (Qeqertaasaq and Tikiusaaq). The trench sampling at the Qeqertaasaq project and assays of surface grab samples from the core area of the complex, which contain up to 7.8% TREO and have an average grade of 2.0% TREO.

More recent assays on samples from trenches excavated across carbonatite dykes in the core area have yielded up to 13.2% TREO with an average grade of 2.8%. The main REE mineral is previously reported to be ancylite. The REE composition of Qeqertaasaq samples is 50% cerium, 27% lanthanum, 16% neodymium, 5% praseodymium and 2% other REEs. NunaMinerals also owns the Tikiusaaq prospect, where surface grab samples contain up to 9.6% TREO.

NunaMinerals and partner Revolution Resources (former Nuukfjord Gold Ltd) also announced (12 August 2010) initial drill results for the Storø, Nuuk Gold Province in West Greenland. A total of 15 diamond drill holes have been completed for a total of 2,225 meters from 9 pad locations. A drill plan map is available on the company website illustrating hole locations and individual hole details. Recent Storø surface mapping and geological review have expanded on earlier structural interpretations revealing that gold-bearing quartz veins, along with essential sulphide mineralisation, are bound within a structural corridor defined by the axial plane. Regional work, focused on numerous other areas within the Nuukfjord Gold Province has continued and initial analytical results from that work are expected soon.

# PhaseTwo drilling completed on Hudson's REE project in Greenland

Hudson Resources Inc. announced 29 September 2010 that it has completed the second phase of drilling at the Sarfartoq Rare Earth Element (REE) project in Greenland. A total of 3,000m of diamond core drilling was completed on the ST19, ST24 and ST1 targets. Together with the





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phase one programme, a total of 8,000 meters of diamond core drilling was completed in 2010. Drilling at ST1 focused on defining the rare earth bodies to assist in the preparation of a resource model.

Hudson has engaged GeoSim Services Inc. to complete an independent resource estimation of the ST1 Zone. This NI43-101 resource estimate will be the first carried

out on the project. It is anticipated to be completed before the end of the year.

James Tuer, president of Hudson, commented as follows: "We are extremely pleased with the productivity and success of our 2010 field season. With the success in finding wide zones of REE mineralisation, the drill programme was increased by 60% from 5,000 m to 8,000 m. We also conducted a trenching programme at ST1 to help delineate the zone at surface. Going forward, we have outlined an aggressive plan to define an economic resource at ST1 and will be commencing metallurgical testwork in the last quarter of 2010. We plan to initiate engineering studies in 2011 subject to complete results from this year's programme. The ST1 zone is expected to be just the first of several REE deposits discovered on the property as we continue on this largely unexplored carbonatite complex."

Mineralogical work conducted on 20 samples suggests that the rare earths are present in carbonatite as the REE-fluorocarbonate minerals bastnasite-(Ce), synchysite-(Ce), synchysite-(Nd) and minor monazite-(Ce).

# The Government of Greenland clarifies the current zero-tolerance policy regarding uranium

With the recent media coverage of Greenland's uranium policy, Naalakkersuisut (the Government of Greenland) would like to clarify that the current zero-tolerance policy regarding uranium will continue to apply. The press coverage seems to be related to the fact that on 9 September 2010 Naalakkersuisut approved a clarifying addition to the rules which regulate exploration for mineral resources. This clarification means that companies which have found and demarcated mineral resources containing radioactive elements can apply for a licence to prepare assessments of the environmental impact and social sustainability. In making this addition to the Standard Terms, Naalakkersuisut hopes to bring about more knowledge about the health and safety issues regarding radioactive elements in occurrences where the actual goal is other metals than the radioactive ones. This addition is in line with Naalakkersuisut's ambition to secure more knowledge about the consequences of exploration and exploitation of radioactive elements.

The addition to the rules explicitly states that a licence to complete such environmental impact assessments etc. does not give right to a licence to explore for or exploit radioactive elements.

Greenland's uranium policy remains therefore unchanged and the zero tolerance for exploration and exploitation of radioactive elements continues intact.

The next Greenland Day to be held by the BMP will be at the PDAC, Toronto 7 March, 2011, where the latest update of Greenland opportunities for mineral deposits will be highlighted.

For further information please contact the Chief Geologist at BMP Henrik Stendal – hdal@nanoq.gl.

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