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### BMP visit to China demonstrates the Greenland mineral potential for base metals, nickel, REEs and iron ore

The Greenland Bureau of Minerals and Petroleum (BMP) will again this year be exhibiting at the China Mining Congress & Expo from the 4-6 November 2012 in Tianjin, China. At the BMP booth #3412, visitors will have a unique opportunity to learn about the Greenland geology as well as the mineral potential for base metals, nickel potential, rare earth elements (REEs), iron alloys and 'how to apply for mining licences', which are among the main topics on display. On 5 November at 2-3.30 pm there will be a special Greenland session with participation of senior officials from the Greenland Government and companies active in exploration for iron, copper and REEs in Greenland.

### Positive results from North American Nickel Maniitsoq project

This district scale Ni-Cu-PGE exploration project is owned 100% by North American Nickel Inc. and consists of two contiguous exploration licences totalling 4,983 km<sup>2</sup> (larger than the entire Sudbury camp). It includes numerous high-grade nickel – copper sulphide occurrences associated with norite and other mafic-ultramafic intrusions situated along the southwest coast of Greenland.

The project is adjacent to year-round open tide water and is in a safe, stable, mining-friendly jurisdiction. The property is highly prospective for nickel, but is still very underex-

plored (average historical hole length is less than 55 metres). The project area received world-wide media attention in June 2012 when evidence was published in a scientific journal announcing that Maniitsoq is the location of the oldest, and possibly largest, meteorite impact yet discovered on earth.

Historic drill results include: Imiak Hill: 9.85 m @ 2.67% Ni, 0.60% Cu and Fossilik: 12.89 m @ 2.24% Ni, 0.63% Cu

Surface exploration and helicopter-borne EM and magnetic surveys completed in 2011 identified new targets and showed that modern, helicopter TEM is an effective exploration tool in this area. Over 3,500 line kilometres were flown at Maniitsoq in July, 2012. To date, helicopter-borne geophysical surveys have identified 75 conductive zones and a select number of priority targets for the first drill



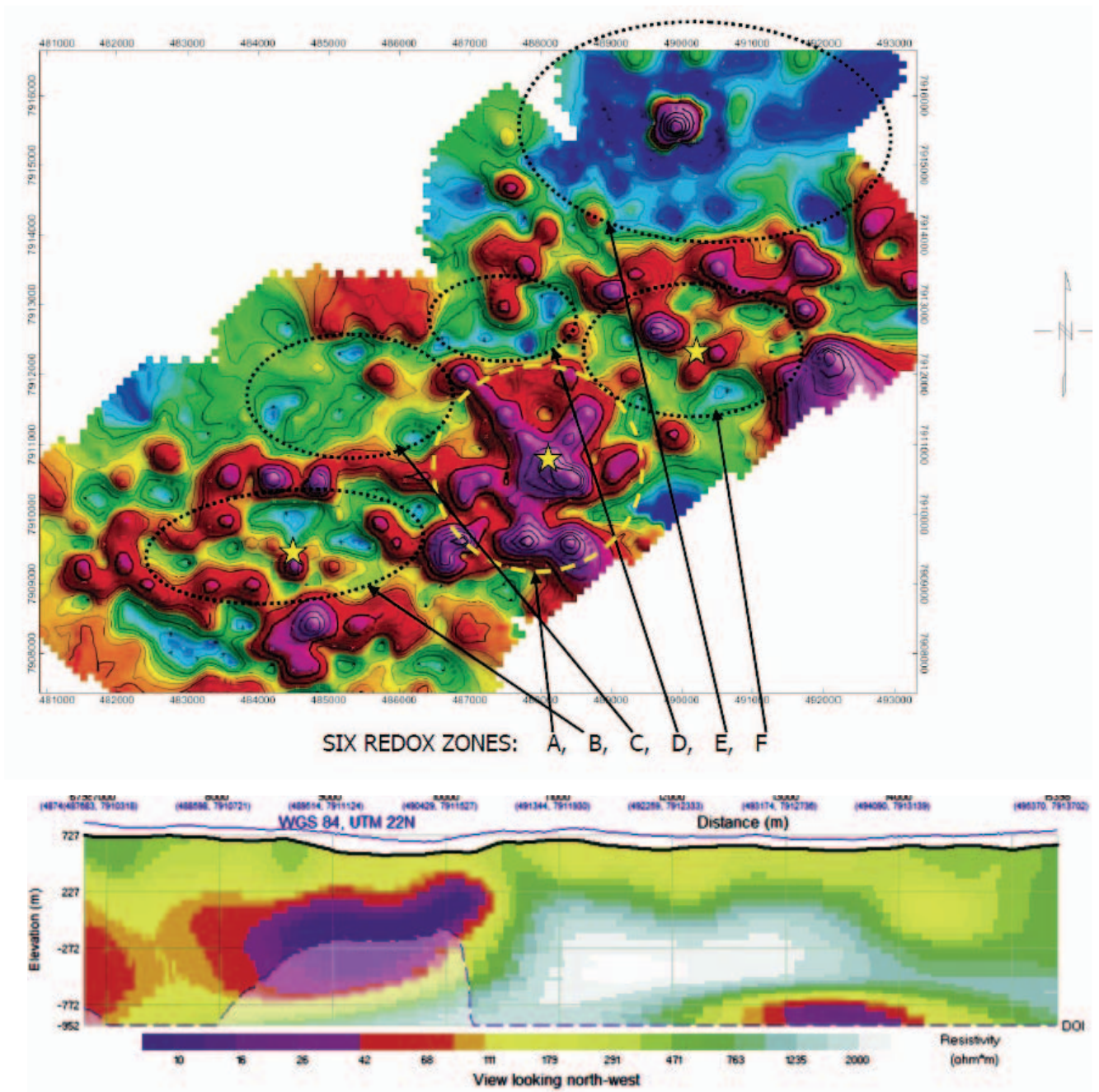
Images from the 2012 drilling program where nine drill holes (1550 m) were completed targeting geophysical anomalies. Preliminary results from this drill campaign indicate the property has the potential to host not only high-grade, semi-massive to massive sulphide type nickel copper deposits, but disseminated, bulk mineable nickel copper deposits, as well. Copyright North American Nickel.

program were tested in August/September 2012. This is the first drilling for nickel in the Greenland norite belt in 40 years. The drilling confirmed two styles of sulphide mineralisation i.e. high-grade, semi-massive to massive sulphide type nickel mineralisation and disseminated, bulk mineable nickel copper type mineralisation.

## Avannaa Resources advances four projects in 2012

Avannaa Resources had active field programmes on four grass roots base metal projects in Greenland during 2012 and will be continuing to explore for copper in Jameson Land, copper and nickel in the West Greenland flood basalts, and zinc in Washington Land and Kangerluarsuk.

At Kangerluarsuk, located 20 km north of the Black Angel Mine, Avannaa is focused on defining a major SEDEX type zinc-lead target hosted in the marginal zone of a starved basin. The prospectivity of the licence has been well established since findings of high grade SEDEX mineralisation by RTZ in 1992 were followed by strong positive zinc anomalies reported by GEUS from its regional stream sediment survey. Avannaa further localized a series of very strong geochemical anomalies within a 15 km long north-east-southwest trending lineament based on MMI (Mobile Metal Ion) and SGH (Soil gas Hydrocarbon), and bulk chemistry surveys. During 2012 the company has demonstrated that some of the main geochemical anomalies correspond to conductive bodies revealed by magneto-telluric survey using the ZTEM system (See figure below).



The upper figure from the Kangerluarsuk property is a 3-D SGH pathfinder class map for SEDEX type deposits prepared by Activation Laboratories Ltd. The yellow star is the location of an anomaly with a ranking of 6.0 which is the highest possible in the SGH system. The lower figure shows the apparent resistivity to depths of 1.5 km along a NE-SW trending profile based on a 357 line km ZTEM survey by Geotech Ltd. The low resistivity body at approximately 600 metres depth corresponds with the SGH anomaly. Copyright Avanna Resources.

A further 825 kilometers of ZTEM were flown at Disko Island and on the Nuussuaq Peninsular where Avannaa is exploring for Noril'sk style Ni-Cu-PGE deposits. The mineralisation model is that sulphide segregation and accumulation has occurred in deep seated sill systems feeding metal depleted picrites in the Tertiary volcanic pile. The survey has identified a number of deep conductors that may represent bodies of this type and which will require drill-testing. Avannaa also conducted a pilot seismic survey at Disko, data quality was excellent and results conform to the geological model. More detailed seismic work will be carried out in 2013 to define the location of target sills, understand the nature of the overburden and permafrost, and understand any other structural information that can guide the eventual drilling program.

## Geophysics identifies parallel mineralised bodies at Isortoq

West Melville Metals Inc. announced on the 24 September 2012 that surveys at the Isortoq iron-titanium-vanadium project in southwest Greenland have identified a second mineralised troctolite (host rock containing the Fe, Ti and V mineralisation) dyke adjacent and parallel to the main body. The Company also announced that it has acquired an additional exploration licence strategically located to cover the interpreted strike extension of the Isortoq dykes.



Unloading drill components at Isortoq Project. Copyright West Melville Metals.

“This is an exciting development in the evolution of the Isortoq Project”, stated Dr. Rory Moore, President and CEO of West Melville Metals. “The identification of a parallel mineralised body significantly increases the tonnage potential at the Isortoq Project. In addition, we are pleased to have been granted the additional Exploration Licence by the Bureau of Minerals and Petroleum, Greenland (BMP). This land is strategically located immediately adjacent to and on strike with the mineralised bodies”.

A total of 134 line kilometres of ground magnetic surveys were conducted over 11.5 kilometres of strike length along portions of the mineralised trend at Isortoq Main. The mineralised troctolite can now be traced over a strike length of 16.3 kilometres using interpretive geophysics and obvious surficial structural features combined with current and historic core drilling confirmations. Ground magnetic surveys suggest that mineralisation occurs in at least two distinct and separate, parallel bodies approximately 900 metres apart.

## Greenland Gold Resources advances V and Ni-Cu projects

Greenland Gold Resources completed their second field season in the company's Sinarsuk Ti-V license in August. The Sinarsuk Ti-V deposit is hosted within the Archaean Fiskenasset gabbro-anorthosite complex on the southwest coast of Greenland some 125 km south of the capital Nuuk. The Fiskenasset complex has a strike length of >200 km and covers roughly 5,000 km<sup>2</sup> with likeliness to other Precambrian intrusions such as Bushveld and Stillwater.



Saw channel profiling at Sinarsuk Ti-V deposit. Copyright Greenland Gold Resources.

Significant new surface discoveries and detailed geological mapping completed in the central part of the license area has doubled the target footprint estimated after the 2011 campaign. Ti-V mineralisation in this area is from 100-250 m wide and shows a consistent stratigraphy comprising gabbroic, peridotitic and dunitic rocks with massive magnetite/ilmenite banding grading into disseminated mineralisation. The mineralised sequence can be traced on surface for >13 km following a significant NE-SW striking magnetic signature.

Systematic surface sampling including 70 saw channel profiles has outlined a number of high priority drill targets, which are believed to have considerable depth and mining widths. Assays results for 2012 are expected in November.

Historic metallurgical test work has demonstrated that the vanadium tenor in a magnetite concentrate returns 2.18wt.% V<sub>2</sub>O<sub>5</sub>, which places Sinarsuk among the highest

tenor projects in the world. Both magnetite and ilmenite form annealed, polygonal aggregates with straight grain boundaries and sizes from 0.2 to 4.5mm, generally the grain size is >1mm making grind liberation easy.

In September, Greenland Gold Resources completed a 423 km VTEM line survey within the company's Ikertoq Ni-Cu license in the Søndre Strømfjord region. The survey covered the recently discovered high-prioritized Niaqornarsuit layered basic-ultrabasic intrusion as well as several other outcropping ultramafic targets and magnetic anomalies. Line data and geophysical anomalies are presently being compiled and modelled by Geotech, Canada. Previous field work in the Niaqornarsuit intrusion has outlined surface nickel grades up to 5.18% with copper and cobalt credits up to 2.1% and 0.3%, respectively. The nickel tenor at Niaqornarsuit averages an impressive 18.65% Ni being among the highest values ever reported from Greenland.

## Hudson Resources Inc. introduces new anorthosite project

Hudson commenced exploration on a very large anorthosite (calcium feldspar) body called 'White Mountain' located on the Company's Najaat Exploration Licence in the Søndre Strømfjord area. These types of deposits are unique in that they have high concentrations of aluminum, silica and calcium. Based on the work to date, Hudson has determined that the characteristics of this calcium feldspar rock have three potential high-value applications which are being investigated including:

1. As a new source of alumina to supply aluminum smelters;
2. As a new source of feedstock to the high end fiberglass (E-glass) industry; and
3. As a new source of filler material - a significant component of the plastics, paints and paper industries.

Hudson believes that nature of the material supports the potential to be a source of alumina. This would be an alternative method to the traditional Bayer process of producing alumina using bauxite. Hudson has entered into a confidentiality agreements with a company to investigate the recovery of alumina (aluminum oxide) using their proprietary technology and with a number of the key industry players in the fiberglass and industrial mineral filler markets to investigate the application of this material to their product lines.

James Tuer, Hudson's President, stated, "We are very excited about the White Mountain Anorthosite Project which is located only 4 km from tidewater and 80 km from Kangerlussuaq area. The proposed anorthosite project would be a simple open pit mining operation similar in scope to a quarry with little processing required to provide a high-value product to European and North American markets. To date, we have drilled 33 holes at White Mountain totalling 3,400 m over an area measuring approximately 6 km by 2 km. Almost 100% anorthosite was intersected in every hole demonstrating the massive nature of this body. In addition we have completed the extraction of a 100 tonne bulk sample. If a marketable resource can be developed it has the potential to provide significant cash flow with a short start-up time. We have completed one season of baseline environmental data with the objective of submitting an application for a mining license in the second half of 2013."



Diamond core drill rig at De Dødes West locality, at Melville Bugt. Copyright Red Rock Resources plc.



Blasted anorthosite material from the bulk sample collected in 2012. Copyright Hudson Resources Inc.

## Red Rock discovers new iron ore province at Melville Bugt

On 24 July 2012 Red Rock Resources plc (Red Rock) announced significant intersections of Algoma-style banded iron formation (BIF) during maiden drilling on its Melville Bugt Iron Project, north west Greenland.

The drill programme was completed in the middle of September, and totalled 4,061 metres in 27 drill holes. Four prospects were drilled, with twelve holes drilled at Havik East, six at Havik North-East, five at De Dødes West, and four at Haematite Nunatak. All holes that reached their target depths intersected iron formation, with each prospect containing ironstone units in excess of 46 m true width, and more than 30% of the core recovered is iron formation.

The Melville Bugt Iron Project is a 1,571 km<sup>2</sup> concession in north west Greenland that is prospective for iron and gold mineralisation. Red Rock has now completed two field seasons in partnership with NAMA Ltd.; in 2011 the geological team carried out large scale mapping, which was combined with airborne geophysical surveys and assay data from grab samples to identify areas of interest. Exploratory diamond drilling was the focus of the 2012 field season, during which the priority targets were delineated with a view to obtaining a JORC-compliant Mineral Resource Estimation for at least one target.

### Geological overview

The licence area is dominated by the ca. 2.9-2.7Ga Thule Mixed Gneiss Complex, a basement of mid- to upper amphibolite facies felsic orthogneiss with subordinate pelitic, mafic and ultramafic enclaves. Unconformably

overlying this is the ca. 2.7Ga Lauge Koch Kyst metamorphosed volcano-sedimentary supracrustal complex, which is the host to the BIFs discovered in the Project area.

### Magnetite targets

Four high priority magnetite-dominated targets were identified in the ice-free western licence area in 2011, the largest of which, Havik East, was a priority drill target during 2012. Havik East is composed of a magnetite iron formation up to 56 m estimated true thickness, which has been tightly-folded and stacked within a sediment-BIF-volcanic sequence. The BIF is characteristically banded and coarse-grained, and shows localised haematite replacement and magnetite enrichment which contribute to localised sections of increased grade up to 64% Fe according to preliminary handheld XRF results carried out on site.

Once the potential of Havik East was demonstrated, further drilling confirmed the presence of similar folded magnetite-BIF at the nearby Havik Northeast Prospect.

Many other similar magnetic anomalies remain untested, such as the ~8 km-long magnetic Tuukkaq anomaly along a ridge that is capped by relatively thin, slow-moving ice, so is accessible to drilling and is expected to be a key focus of future exploration programmes.

### Haematite targets

The eastern licence area is largely ice-covered, presenting a mix of covered and partially-covered targets identified by the 2011 aeromagnetic survey and reconnaissance mapping. The exposed targets are dominated by haematite-BIF, and drilling at two prospects, De Dødes West and Haematite Nunatak, has defined altered ironstones showing variable amounts of secondary haematisation of typical banded Algoma-style magnetite BIF. Field XRF returned grades of up to 70% Fe from these two prospects, which have estimated true thicknesses of up to 87 m, with further localised thickening due to sequence stacking.

The presence of pervasive haematite alteration of thick ironstone units has the advantage of extending exploration potential beyond the defined airborne magnetic anomalies, so a key aspect of on-going work will be to understand the controls on haematisation.

### Gold Potential

Gold potential has also been noted in the volcanic sequences of Havik East, De Dødes West and Haematite Nunatak, where sulphide minerals including pyrite, chalcopyrite, arsenopyrite and pyrrhotite have been documented in sections of intense brecciation and alteration.

The laboratory assay results of the drill programme are expected towards the end of 2012, and a consultant has been engaged to undertake Mineral Resource Estimation work with the team.

## NunaMinerals intersects wide gold interval at 'Amphibolite Ridge'

NunaMinerals is pleased to announce the assay results from initial drilling of the 'Amphibolite Ridge' gold project, within the Company's 100% owned Vagar licence in South Greenland.

The initial drilling program (1193 metres; 6 holes) tested the continuity over approximately 600 metres of several gold bearing quartz veins as well as the granitic host rocks. NunaMinerals believe that in addition to the high-grade quartz veins, there is potential in the Niaqornaarsuk Peninsula for low-grade bulk tonnage intrusion related gold mineralisation. Hence all drill core has been assayed, the majority in two-metre sections, in order to test the granitic host rocks.

Gold bearing quartz veins were intersected in 4 out of the 6 holes. Visible gold was identified in VAG-12-02 at 83.1 metres and at 132 metres.

Drill hole VAG-12-02 intersected 54.7 metres at 1.3 g/t gold from 68 metres depth, including 23.3 metres at 2.3 g/t gold. The gold intersection is hosted by granodiorite and granite with frequent quartz veins or veinlets as well as variable sulphide impregnation.

Ole Christiansen, CEO of NunaMinerals stated:

*"We are very pleased with these excellent results from the first drilling programme to be carried out on this project. Four out of six holes intersected gold. Hole 2 discovered a wide zone of gold mineralisation, with the end of hole still mineralised. We are therefore planning additional drilling with the aim of getting a better understanding of the spatial distribution of the mineralisation".*



NunaMinerals inspecting the discovery hole, Vagar DDH-12-02. Copyright NunaMinerals.

## Nordic Mining's JV-partner search for base metal at Wegner Halvø

Nordic Mining has a Joint Venture with Jiangxi Asian Mining Co of China centered on the east coast of Greenland at Wegner Halvø to the north of Jameson Land.

This Joint Venture has now been operating for some 4 seasons concentrating on the large sedimentary Triassic sedimentary copper deposits of the Pingo Dal area - also studied have been the copper and base metal - strontium deposits of the underlying upper Permian succession. In this location up to ten separate copper enriched mineralised horizons are known which can be up to 10 m thick. Copper is known to occur in sedimentary environments similar to the great Kuperschiefer deposits of Poland and eastern part of Germany. However copper and base metal mineralisation is also known from conglomerate, sandstones, limestones and arkose alluvial fans.



A group of geologists from Jiangxi Asian Mining Co sampling on the site of the best copper discovery at Wegner Halvø, Central East Greenland. Copyright Nordic Mining.

The group has completed its second season of drilling on the project. The main economic mineral sought is chalcocite although native copper, chalcopyrite, galena and sphalerite are known. Chalcocite provides the high grade copper concentrate for export.

## Aeromag 2012 survey completed in South-East Greenland

An airborne magnetic survey was completed in October 2012 in South-East Greenland. The area was surveyed using 500 m line spacing with flight lines oriented parallel to the coast and draped over the terrain. The 2012 survey will add new and important data to the existing database of modern aeromagnetic surveys for Greenland. In particular the new survey data will be a valuable contribution to the geological investigations and activities undertaken by the Survey in the mineral assessment programme for the region; later, the data will be available for activities by prospecting companies.

A total of 48,000 line km were flown covering the southern part of the North Atlantic Craton in South-East Greenland, which stretches from north of Kangeq (61°45'N) and further northward to Umiiviik (64°30'N). The Craton is dominated by gneiss with small supracrustal sequences of up to 1 km in width and strike length of several km, meta-ultramafic intrusions and several late-tectonic alkaline intrusions in the Skjoldungen area.

The survey was flown by EON Geoscience Inc. on a contract with GEUS. GEUS supervised the survey, performed the quality control and will do the interpretation of the data. The processed data will be released in connection with the PDAC in Toronto 2013. The survey was financed by the BMP.

The contract with EON Geoscience Inc calls for a northward extension of the survey during 2013. A similar amount of line km is expected to be acquired in the Aeromag 2013 survey.

## Announcing 'Greenland Day' in Perth 4 December 2012

The Greenland Bureau of Minerals and Petroleum (BMP) in cooperation with the Centre for Exploration Targeting (CET) at the University of Western Australia (UWA) invite you to the next Greenland Day in Perth, Western Australia. It is the fourth Greenland Day in a row since 2010. BMP offers you an opportunity to listen and learn about mineral exploration in Greenland. We hope you will attend the Greenland Day, which will be held on Tuesday December 4, 2012 at the UWA Club (University of Western Australia).

The Greenland Day is designed to provide an opportunity for resource companies and investors to understand more about exploration and mining opportunities in Greenland.

The technical conference program will include:

- Highlights of the recent activities and initiatives in Greenland
- General presentation of GEUS and CET – and why CET is involved in Greenland
- Introduction to 4 billion years of geological history of Greenland and available data
- Comparison between endowed terranes in Greenland and Australia
- Nickel mineral systems in Archaean ultramafic rocks in South-East Greenland
- The potential for nickel mineralisation in Greenland
- Potential areas for gold exploration in Greenland

Company projects presentations representing the following licensees:

Czech Geological Research Group (Granitic intrusions)  
 Greenland Minerals and Energy (REE, U, Zn)  
 Hunter Minerals (Thule Heavy Mineral Sand)  
 Ironbark Zinc (Citronen Fjord – Zn)  
 North American Nickel (Ni – Cu)  
 Tanbreez (Zr, REE, Nb, Ta)  
 Platina Resources (Au, Pd, Pt)

For further details please contact Henrik Stendal – [hdal@nanoq.gl](mailto:hdal@nanoq.gl)

## BMP awards the Greenland Prospector and Developer of the Year 2012

As per tradition the Bureau of Minerals and Petroleum (BMP) has awarded the Greenland Prospector and Developer of the year. The prize is awarded to a person or a company who has done an extraordinary effort in the geological exploration of Greenland. The prize was awarded at the annual PDAC convention in Toronto at the BMP reception.

This year the prize is presented to Avannaa Resources Ltd's CEO Nick Rose, who is also the founder of Avannaa Resources Ltd.

Avannaa Resources is a mineral exploration company, founded in 2006 and exclusively focused on Greenland. Avannaa's project portfolio includes base metals such as copper and zinc. The company has strong expertise in grass roots exploration and in knowledge of the geology and mineral exploration opportunities in Greenland. This expertise is being exploited in North, East and West Greenland with great success due to the company's clear strategy and focussed aims.

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Last year the prize was presented to geologist John Ferguson. The prize has also been awarded to Greenland based NunaMinerals A/S and to Canadian based Hudson Resources Inc.



Deputy Minister Jørn Skov Nielsen congratulates Avannaarsuaq Resources Ltd's CEO Nick Rose for the award as Greenland Prospector and Developer of the year. Copyright BMP.

## Calendar for BMP marketing

The BMP will be marketing the Greenland Mineral Resource Potential at the following upcoming events:

- **China Mining Congress and Expo**  
- November 3-6, 2012, Tianjin, China
- **Greenland Day in Perth**  
- December 4, 2012, Perth, Australia
- **Mineral Exploration Roundup**  
- January 28-31, 2013, Vancouver, Canada
- **PDAC**  
- March 3-6, 2013, Toronto, Canada



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