

Frontier play shows promise

By Lydia Brisbout

AFTER ONLY ONE field season, Greenland Minerals and Energy Ltd has already established a resource at its Kvanefeld rare earth, uranium and sodium fluoride project in southern Greenland.

The Perth-based company, which acquired an initial 61% of the project in July 2007 (this can be increased to 100%), announced a maiden JORC compliant inferred resource in May this year.

This was followed by an updated inferred resource late last month of 334 million tonnes grading 0.03% uranium oxide (at a cut-off of 0.015%), including 215 Mt at 1.21% rare earth oxide (REO) (up 163%) and 201 Mt at 1.11% sodium fluoride (up 68%).

Currently, REO makes up about 70% of the in-ground value of Kvanefeld, which is located 8 kilometres north of Narsaq on the southern tip of Greenland, with uranium oxide accounting for almost 25% of the value and sodium fluoride the balance.

Although a moratorium is currently in place in Greenland on the mining of radioactive materials, a review of these laws is underway and Greenland Minerals has the permission of the government to explore Kvanefeld as a multi commodity deposit.

According to its manager of special projects, John Mair, further resource upgrades are expected in the coming months as the final assays from the 10,000 metre drilling program undertaken in 2007 become available and results from the current 15,000m drill program are received.

"When we first looked at Kvanefeld, it was something we recognised that, based on historic data, looked like a relatively modest uranium occurrence but had the potential to be a lot bigger," Mair said.

"Not only that (but) it was something that could potentially host a whole suite of elements in economic concentrations."

With the current resource based only on part of the 2007 drilling program, Kvanefeld is certainly displaying some of that promise.

"We know the REO resource is going to grow because the uranium-rare earth correlation is very good, so we are expecting that to increase significantly before we

even look at the 2008 assays," Mair told *Gold&Minerals Gazette* and brokers at a recent presentation.

"And at this point it looks like, from a geological standpoint, that considerable rare earth grades could extend out beyond the 150 parts per million uranium oxide data which currently defines the resource shell."

The 2008 program, aimed at increasing the total resource at the project as well as upgrading the JORC category of the existing resource, was due to wind up at the end of this month, with assays from this work to be received progressively over the next eight months.

Precedent set

Kvanefeld was previously evaluated as a uranium source by the Danish Atomic Energy Agency in the 1970s and 1980s, and Greenland Minerals was recently granted access to about 11,000m of core from historic drilling which will also be assayed in the coming months.

Beneficiation, metallurgical and mineralogical studies are already in progress, with initial work revealing that the rare earth elements (REE) and uranium at Kvanefeld are predominantly hosted by steenstrupine, a phosphor-silicate mineral, while the sodium fluoride present is largely hosted by villaumite.

"In a deposit like this you have 95% of the commodities of interest locked up in about four minerals and a big focus we have at the moment is understanding the mineralogy," Mair explained.

"We know what the minerals are, but it is as much about the waste and beneficiation as it is about the metals of interest because it is about getting as much of that value into as small a volume as possible so you require minimal use of acid."



Drilling at Kvanefeld poses some logistical challenges.



Greenland Minerals' managing director Rod McIlree on site.

Further beneficiation work is planned for 2009 to feed into a scoping study later in the year.

Environmental baseline studies are also continuing and – given Greenland Minerals inherited six of the eight years of required data from the previous operations – are likely to be finalised in the near future.

In light of its success so far, Mair is quick to point out that Kvanefeld represents only "the first foray" into Greenland by the company, which has also identified seven new exploration targets that it is currently evaluating.

Conceding it may not be the first country to spring to mind when thinking of underexplored mineral provinces, Mair believes the nation's mineral endowment, active geological survey, publicly available geochemical and geophysical data, potential access to hydroelectricity and numerous deepwater ports will soon see the country enjoy wider recognition as an exploration and mining destination.

"Greenland remains one of the last frontiers for mineral deposit discovery, and is a politically stable, mining friendly jurisdiction," he asserted.

"From a geological standpoint it is a highly prospective place (and) has got very diverse geology prospective for a whole range of commodities."

Having raised a total of \$31 million late last year, Mair estimates the company will still have about \$18-20 million in the bank at the end of this year with which to fund further work.