



Greenland Minerals and Energy Ltd is focussed on discovering and developing world-class mineral projects in Greenland; an important new minerals region looking to establish a strong resources sector

Primary focus - developing the Kvanefjeld multi-element project:
Large-scale, long-life, cost effective production of uranium, heavy and light rare earth concentrates, with strong growth potential

Kvanefjeld project global resource base:

861 Mt JORC-code compliant multi-element resource (REE, U, Zn), significant upside remains

Contained metal: 512 Mlbs U_3O_8 , 340,000 t HREO, 750,000 t Y_2O_3

The company is listed on the Australian Securities Exchange

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March 2012 Quarterly Report

Monday, 30th April, 2012

Highlights

- Initial Zone 2 mineral resource estimate confirms a second major multi-element deposit within the project area:
 - 242 Mt @ 304 ppm U_3O_8 , 1.1% total rare earth oxide (TREO)
 - High-grade upper lens of 119 Mt @ 400 ppm U_3O_8 , 1.2% TREO offers potential to significantly increase project mine life, and improve grade of mine-scheduled ore
 - Zone 2 features the same mineral mix as the giant Kvanefjeld deposit, located 6 km to the north
- Project global resource base expanded to 861 Mt, containing 512 Mlbs U_3O_8 , 340,000 t heavy REO, 750,000 t yttrium oxide, 4.4 Blbs zinc
- Zone 3 initial resource estimate anticipated in the coming weeks; set to further increase the global resource base
- Atmospheric leaching of REE-U-rich mineral concentrates yields >90% extraction of heavy REEs and uranium
- Enhanced process flowsheet completed, based on effective beneficiation followed by atmospheric sulphuric acid leach and solvent extraction recovery
- Prefeasibility study on Kvanefjeld stage 1 development scenario set for imminent release



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Introduction

Greenland Minerals and Energy Ltd ('GMEL' or 'the Company') is a mineral exploration and development company operating in southern Greenland. The Company is primarily focused on advancing the Kvanefjeld multi-element project (*both heavy and light rare earth elements, uranium, and zinc*) through the feasibility phase and into mine development.

The Kvanefjeld project is centred on the northern Ilimaussaq Intrusive Complex in southern Greenland. The project includes several large scale multi-element deposits including Kvanefjeld, Zone 2 and Zone 3. Global mineral resources now stand at **861 Mt** (JORC-code compliant), with further increases imminent with the initial resource estimate for Zone 3 anticipated in the coming weeks. The deposits are characterised by thick, persistent mineralisation hosted within sub-horizontal lenses that can exceed 100m in true thickness. Highest grades generally occur in the uppermost portions of deposits, with overall low waste-ore ratios.

The Kvanefjeld project area is located adjacent to deep-water fjords that allow for shipping access directly to the project area. An international airport is located 35km away, and a nearby lake system has been positively evaluated for hydroelectric power.

The company is currently closing out a comprehensive, multi-year pre-feasibility program that has focussed on identifying and evaluating the best possible process flow sheet for the Kvanefjeld project, taking into account economic metrics, environmental considerations, technical and market risk. Major technical advances through 2010 and 2011 provide the foundation for a simple development scenario with low-technical risk.

Importantly, the Greenland government introduced a uranium licensing framework for the Kvanefjeld project in late 2011. This provides a clear path to see the project move through the feasibility phase and ultimately into mine development.

The Company's aim is to be a cost-effective producer of metals of fundamental strategic importance and value to tomorrow's world. Rare earth elements (REEs) are now recognised as being critical to the global manufacturing base of many emerging consumer items and green technologies. However, China controls more than 95% of global REE supply, and has maintained a policy of significantly reducing export quotas. This continues to raise serious concerns to non-Chinese consumers over the long-term stability of REE supply and pricing, at a time when REE-demand continues to grow. Uranium forms an important part of the global base-load energy supply, with demand set to grow in coming years as developing nations expand their energy capacity to meet growing consumption.

March Quarter Activities

A major focus for the Company through Q1 2012 has been the finalization of drill results from the 2011 program, and the establishment of the initial resource estimate for the Zone 2 deposit, with an initial resource for Zone 3 expected in the coming weeks. These developments have served to further demonstrate the resource potential of the broader project area.

Also during the March Quarter, GMEL's project development team confirmed a key technical breakthrough; the ability to leach uranium and heavy REEs from mineral concentrates using conventional acidic solutions under atmospheric conditions. Together, effective beneficiation followed by atmospheric leaching form the basis of an enhanced process flowsheet. The Company has since been in the process of closing out a comprehensive multi-year prefeasibility program, with outcomes anticipated for imminent market release.

Environmental and social impact assessments are continuing on schedule and are anticipated for completion in late 2012 as key components of an exploitation (mining) license application.

Mineral resource development program: A case of systematic growth

The minerals resources of the northern Ilimaussaq complex have been increasing steadily since the point of project acquisition in 2007. The geological framework always highlighted the potential to unearth substantial mineral resources. Historic work programs, and the initial resource programs of GMEL focussed on Kvanefjeld plateau where uranium-REE mineralisation outcrops extensively. The most recent resource estimate for Kvanefjeld is 619 Mt, which represents the fourth resource estimate produced since acquisition of the project in 2007.

Exploration to evaluate the potential for further deposits in the northern Ilimaussaq complex commenced in 2008; however, it was the 2010 drilling campaign that truly confirmed the presence of significant multi-element mineralisation at Zones 2 and 3. The 2011 drill program then aimed at generating sufficient drill date to establish initial mineral resource estimates.

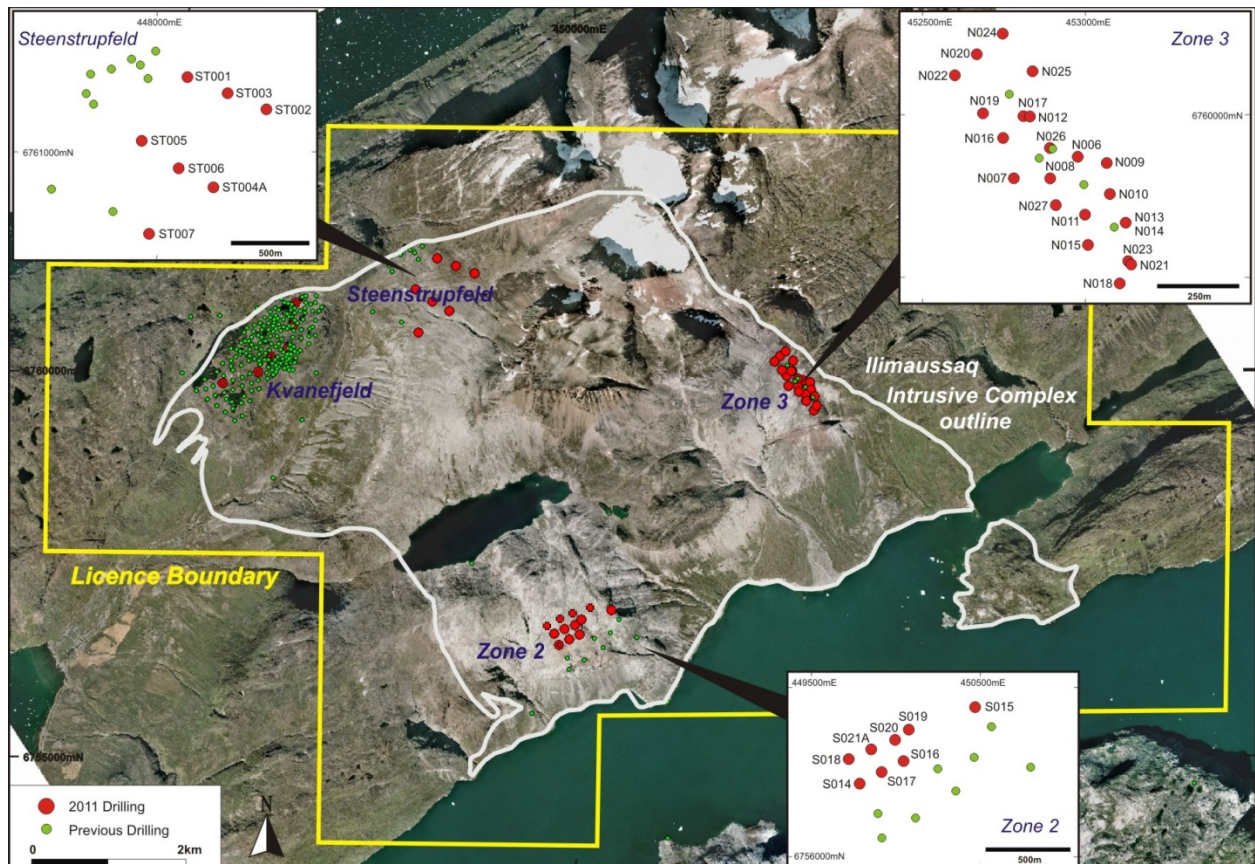


Figure 1. Overview of GMEL's multi-element project on the northern Ilimaussaq Complex in Greenland. A JORC-code compliant 619Mt resource has been defined at Kvanefjeld. The 2011 drill program concentrated on Zones 2 and 3.

The initial Zone 2 mineral resource estimate, independently prepared by SRK Consulting, was released on March 21st. Highlights of the Zone 2 resource estimate include:

- Zone 2 inferred mineral resource of **242 Million tonnes (Mt)* @ 304 ppm U₃O₈, 1.1 % total rare earth oxide (TREO)** , 0.26% zinc**
- Zone 2 contained metal inventory of **162 Mlbs U₃O₈, 2.67 Mt TREO**
- Higher grade upper ore zone of **119 million tonnes @ 400 ppm U₃O₈, 1.2% TREO**
- Zone 2 remains open towards the Kvanefjeld deposit located 6 km to the north
- Zone 2 resources hosted by the same rock-type as Kvanefjeld; conducive to the same enhanced processing method established for Kvanefjeld

With the addition of the Zone 2 resource, the global mineral resource for the overall project now stands at 861 Mt, with a contained metal inventory of:

- **512 Mlbs U_3O_8** (increase of 46%) and
- **9.2 Mt TREO** (increase of 39%), including 330,000 t heavy REO, 740,000 t Y_2O_3
- **1.98 Mt zinc**

*(at 150 ppm U_3O_8 cut-off), **Total Rare Earth Oxide (TREO) refers to the rare earth elements in the lanthanide series plus yttrium

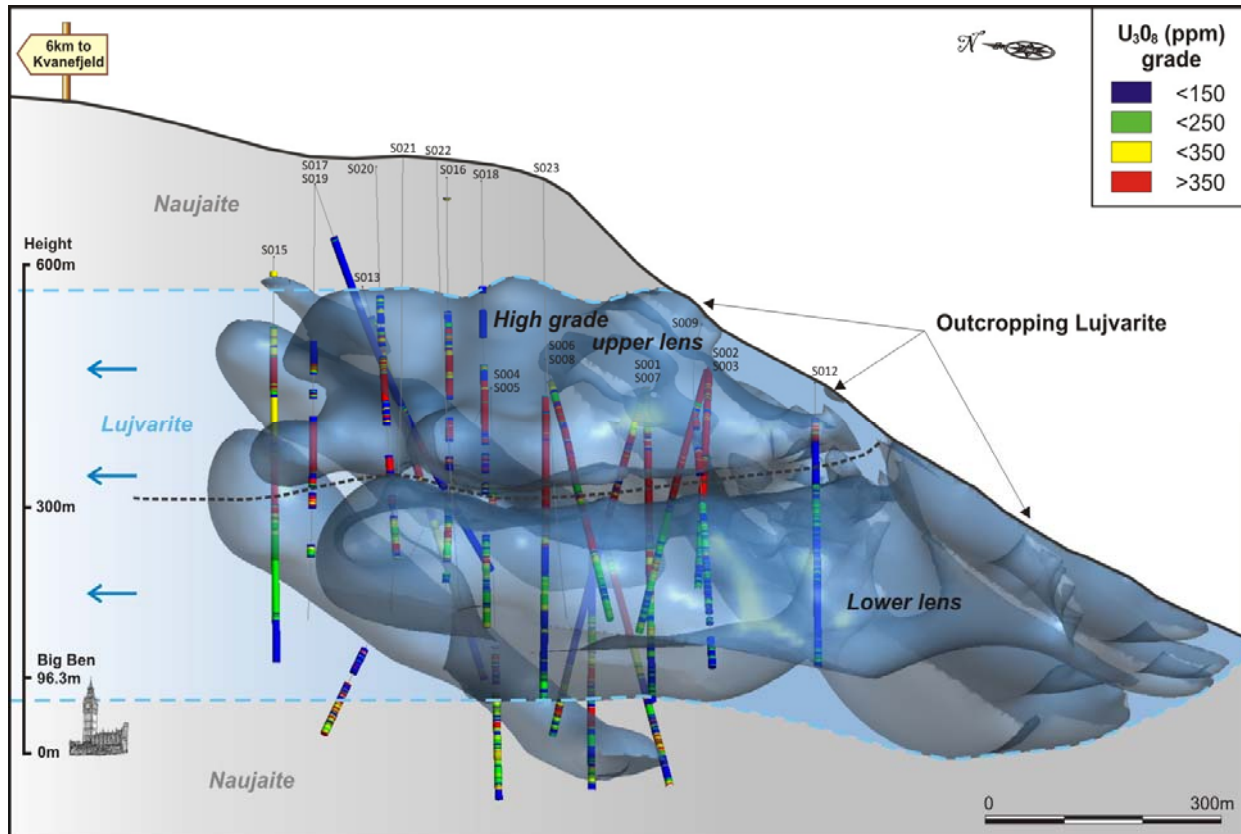


Figure 2. Long section through the geological model of the Zone 2 deposit. The model is constrained by both drill intersections and outcrop mapping of the lujavrite horizon. The deposit remains open to the north (left of page), with the lujavrite horizon undulating for 6km to the northern contact of the Ilimaussaq Complex where Kvanefjeld is located. Zone 2 is characterised by improving grades with proximity to surface. The model was generated using Leapfrog™ software. Big Ben, a well-known tall landmark, is shown at same scale to allow an appreciation of the vertical dimensions of Zone 2.

The Zone 2 deposit is located below a cap of naujaite, approximately 6 kms south of Kvanefjeld. Reconnaissance radiometric and geological studies suggested a promising grade profile, and potentially higher grade than resources defined at Kvanefjeld. Subsequent drilling defined two thick, sub-horizontal sills of lujavrite (Figure 2), with a similar mineralogical and geochemical signature to Kvanefjeld.

The most notable similarity between Kvanefjeld and Zone 2 is the clear trend of improving uranium and rare earth grades with proximity to the surface, with the uppermost sill at Zone 2 showing similar, if not better uranium grades, than the upper uranium-rich zone at Kvanefjeld.

Importantly, Zone 2 clearly offers the potential to improve the grades and increase the overall life of mine.

Drill results from 2011 drilling at Zone 3 were released in late March and an initial resource estimate is anticipated for release in the coming weeks. A total of 21 holes were drilled at Zone 3 during 2011 (see Figure 3), with significant intercepts including:

- **N023 101m @ 434ppm U₃O₈, 1.56% TREO, 0.30% Zn**
- **N009 68m @ 410ppm U₃O₈, 1.35% TREO, 0.31% Zn**
- **N011 67m @ 400ppm U₃O₈, 1.49% TREO, 0.38% Zn**
- **N016 81m @ 308ppm U₃O₈, 1.20% TREO, 0.35% Zn**
- **N007 71m @ 349ppm U₃O₈, 1.10% TREO, 0.26% Zn**
- **N010 44m @ 446ppm U₃O₈, 1.45% TREO, 0.31% Zn**
- **N021 46m @ 420ppm U₃O₈, 1.44% TREO, 0.27% Zn**

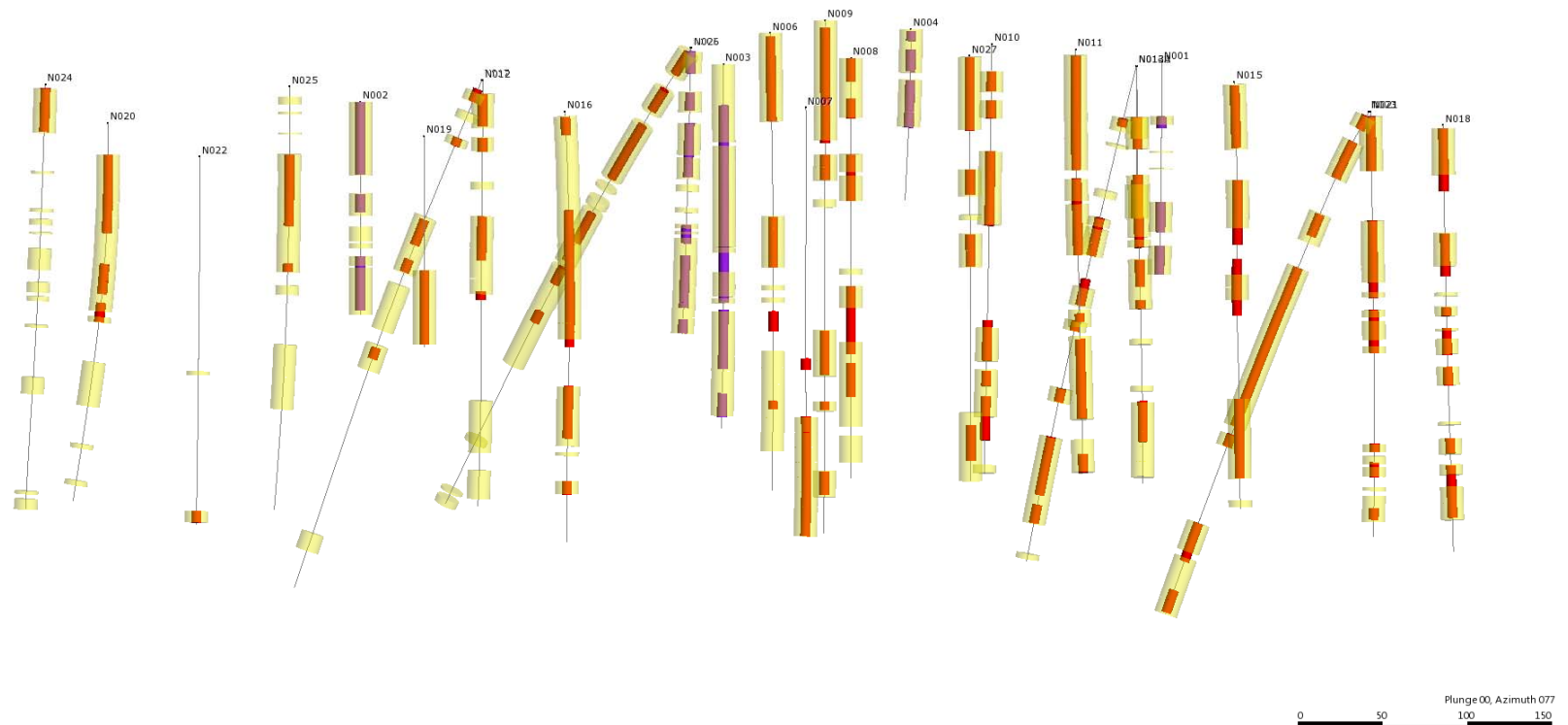


Figure 3. Long-section view of the drilling conducted at Zone 3 to date. The section is oriented NW-SE, looking toward the northeast, and the scale bar indicates 150m in 50 metre increments. The drill traces highlight lujavrite in transparent yellow (rock type that hosts the REE-U-Zn mineralisation), with significant multi-element intercepts highlighted in orange (2011 drilling), and purple (2008 drilling).

KEY METALLURGICAL DEVELOPMENTS:

Atmospheric Leaching of REE- and U-Rich Mineral Concentrates

Major beneficiation breakthroughs were achieved in 2011, with the establishment of a flotation method to concentrate the bulk of REOs and uranium into <15% of the original mass. The flotation circuit was scaled up and successfully piloted in Q3 2011. This development opened up a number of alternate flowsheet options to the base-case scenario. By removing the non-economic minerals from the ore, conventional acid leaching methods can be considered along with alkaline leaching methods. Leach circuits can also be significantly downsized. The beneficiation pilot plant importantly produced bulk mineral concentrates for metallurgical leach studies. These studies have now been completed during Q1 2012 with very positive results.

Controlled atmospheric leaching of the mineral concentrate (generated by froth flotation) in tanks produces extractions of 90-95% for both uranium and heavy REOs; the two main value drivers to the Kvanefjeld project. Light REOs are also recovered, but at a slightly lower level of extraction.

Following leaching, uranium and REOs can be recovered from pregnant leach solutions with commercially proven solvent extraction techniques.

The ability to achieve high extractions of uranium and heavy REOs using conventional acid solutions under atmospheric conditions is another critical breakthrough in establishing a cost-competitive, efficient flowsheet with low-technical risk. The synergies in leaching uranium and heavy REOs with a single leach circuit will further improve the economic metrics of the project.

ESTABLISHMENT OF AN ENHANCED FLOWSHEET

The beneficiation and leaching developments form the basis of a flowsheet which consists of sequential froth flotation to firstly concentrate sphalerite (zinc sulphide), and then REE-uranium phospho-silicate minerals, which are then leached using conventional acid solutions under atmospheric conditions (Figure 4). This enhanced flowsheet is designed to produce uranium oxide, a heavy rare earth concentrate, light rare earth concentrate, and zinc concentrate (sphalerite). The Company views this scenario as a logical first phase of a staged development program.

The enhanced flowsheet represents an efficient and scalable development option. Its development reflects the 'mineral-driven' approach that the Company has taken throughout its metallurgical studies. The beneficiation-step provides a highly effective means of concentrating the dominant REE-uranium mineral group, from which uranium and REEs can then be simply and efficiently leached. The leach solution chemistry allows for the production of both heavy and light REE concentrates.

The Kvanefjeld project offers the potential for multiple product streams and revenue drivers. GMEL is primarily focused on optimising the project towards uranium and heavy REO production, which then provides greater flexibility in the marketing and pricing of light REE products.

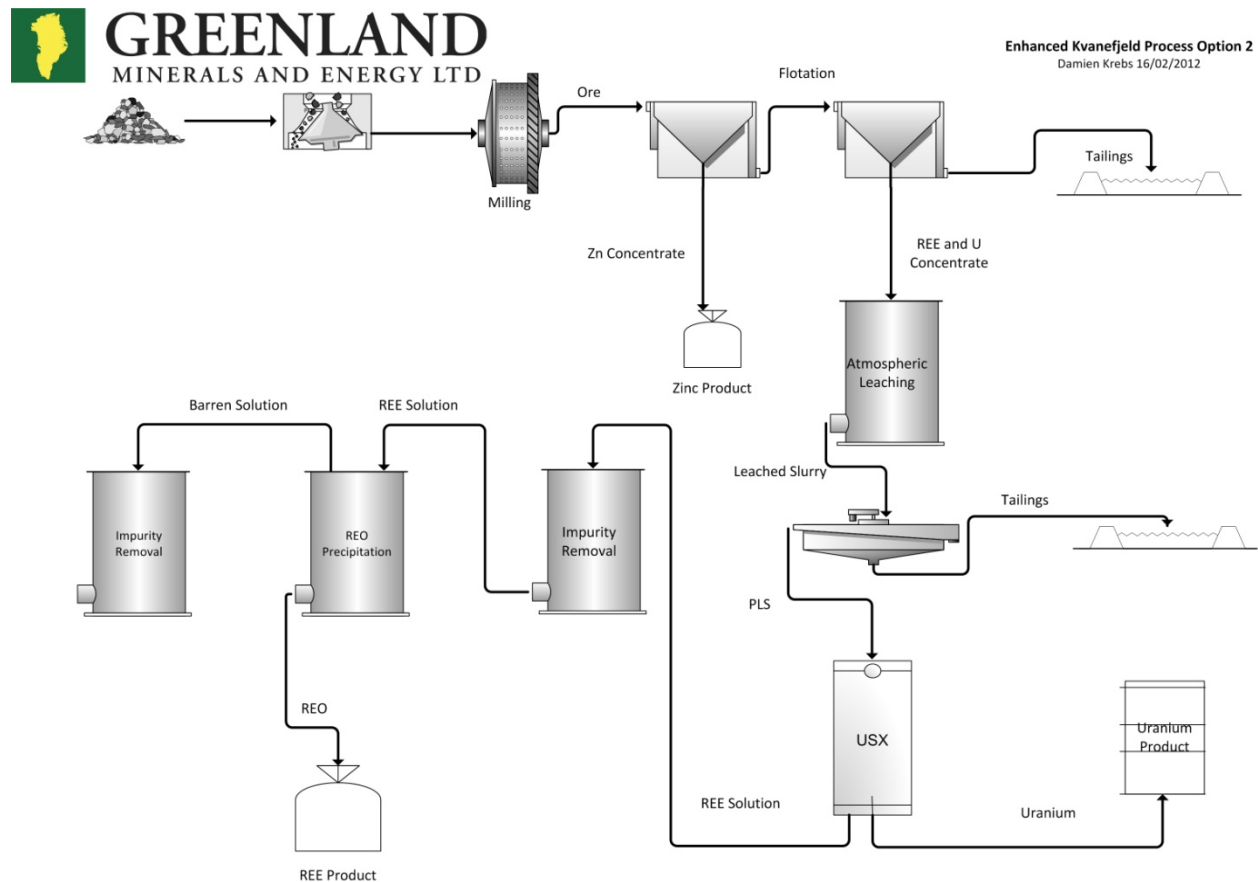


Figure 4. A conceptual representation of the enhanced Kvanefjeld process flowsheet. Flotation produces a zinc concentrate, then a uranium- and REE-rich mineral concentrate that is leached using conventional acid solutions under atmospheric conditions. Uranium is recovered by solvent extraction prior to a stage of impurity removal before REOs are recovered. The majority of ore feed (gangue minerals) is stored as untreated flotation tailings, with only a small proportion (economic minerals) treated chemically to leach uranium and REOs.

In contrast to the interim pre-feasibility study, released in February 2010, where the base-case featured an alkaline pressure leach circuit (uranium extraction) then an acid leach circuit (REO extraction), the enhanced flowsheet features a single leach circuit to extract both uranium and rare earths. That single leach circuit delivers >90% extraction rates from the flotation concentrates for both uranium and heavy REEs under atmospheric conditions. The leach circuit

will also be of significantly smaller scale than those in the previous base-case as it will be treating a higher-grade mineral concentrate that represents <15% of the original ore mass.

As part of a staged development program, future increases in uranium and rare earth output can be readily achieved through ramping-up mine throughput. This will be facilitated by expansion of the project's global resource base following the release of initial resource estimates for the Zones 2 and 3 satellite deposits.

Tenure, Permitting and Project Location

Tenure

Greenland Minerals and Energy Ltd (ABN 85 118 463 004) is a company listed on the Australian Securities Exchange. The Company is conducting exploration of EL2010/2 in accordance with a joint venture agreement. The Company currently controls 61% of the license (with options to move to 100%). The Company, through its subsidiary, is also the operator of the project.

The tenement is classified as being for the exploration of minerals. The project hosts significant multi-element mineralisation within the Ilimaussaq Intrusive Complex.

Historically the Kvanefjeld deposit, which comprises just a small portion of the Ilimaussaq Complex, was investigated by the Danish Authorities. The project has received significant past exploration in the form of drilling, geophysics, geochemistry, an exploratory adit and numerous and varying metallurgical test work and technical papers.

Permitting

Greenland Minerals and Energy Limited is permitted to conduct all exploration activities and feasibility studies for the Kvanefjeld REE-uranium project. The company's exploration license is inclusive of all economic components including uranium and REEs. The Company holds the right to apply to exploit the Kvanefjeld project. The approval of an exploitation license is largely dependent on establishing an economically robust, and environmentally and socially acceptable development scenario.

Location

The exploration lease covers an area of 80km² in Nakkaalaaq North on the southwest coast of Greenland. The project is located around 46° 00'W and 60 55'N.

The town of Narsaq is located approximately 7 kilometres to the south west of the license area. Narsaq is connected to Narsarsuaq International Airport by commercial helicopter flights operated by Air Greenland. Local transport between settlements is either by boat or by helicopter.

The Company has office facilities in Narsaq where storage, maintenance, core processing, and exploration activities are managed. This office supports the operational camp located on the Kvanefjeld Plateau above the town where the operational staff are housed.

Access to the Kvanefjeld plateau (at approximately 600m asl) is generally gained by helicopter assistance from the operations base located on the edge of the town of Narsaq. It is possible to access the base of the plateau by vehicle and then up to the plateau by a track.

Other Exploration License Holdings

As announced on 18 May 2011 GMEL had applied for, and was granted license holdings to consolidate its ground position in the Kvanefjeld area. The new license areas occur immediately adjacent to the Ilimaussaq Complex and may be prospective for specialty metal mineralization hosted near the margins of the complex (see Figure 4). GMEL aims to conduct evaluations to assess the potential for mineralization, in conjunction with sterilising key areas that are under assessment for plant and infrastructure locations. The Company is considering a number of possible locations for key infrastructure items, which include areas adjacent to the Kvanefjeld resource, as well as the broad area on the northeastern side of the Ilimaussaq Complex. Stakeholder input and environmental considerations are critically important to the site selection process. Options for the location of key infrastructure items have recently been presented to Greenlandic stakeholders during public meetings held in early April.

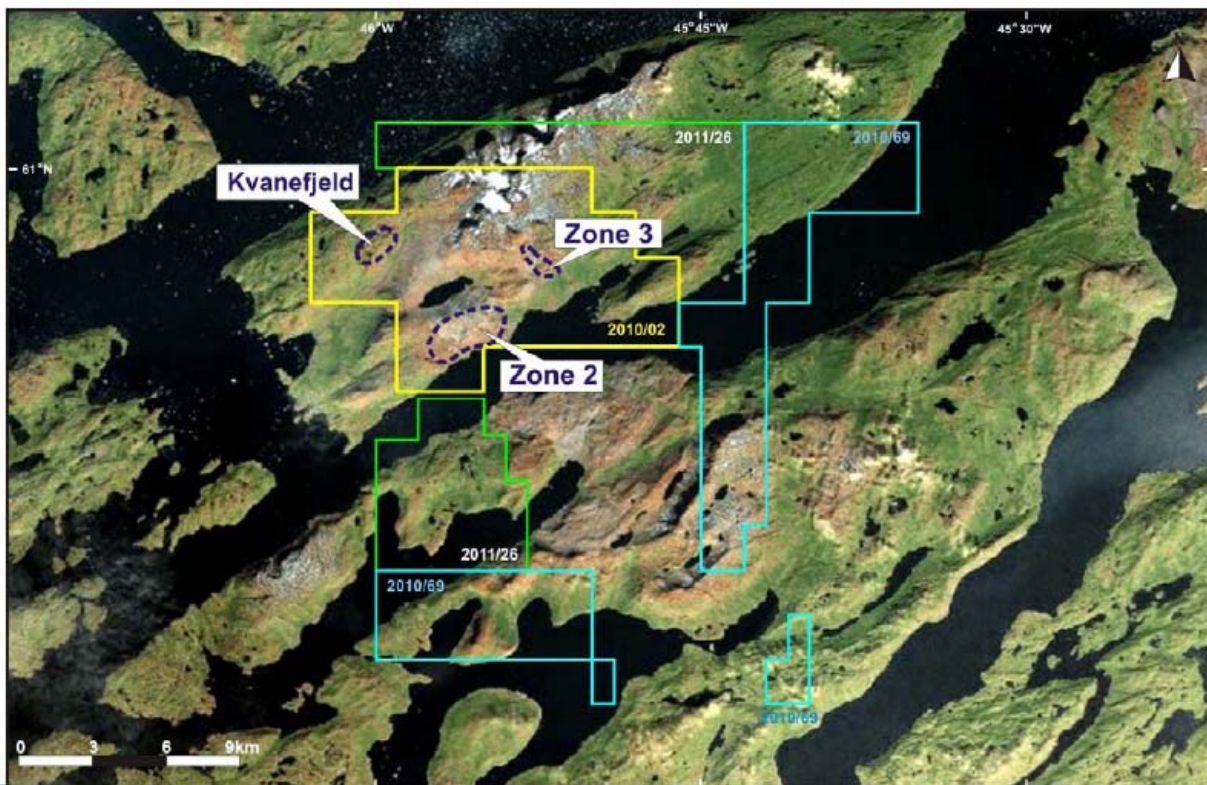


Figure 5. GMEL's license holdings around the Ilimaussaq complex in south Greenland. License EL2010/02 is held under the joint venture agreement with Westrip Holdings, whereas all other licenses are held outright by GMEL.

Capital Structure

<u>Total Ordinary shares:</u>	416,390,488
Unquoted unvested performance options exercisable at \$1.75	7,000,000
Performance rights (refer to announcement 21/10/2011 for terms)	16,450,000
Employee options exercisable at 25c	750,000

Please visit the company's website at www.ggg.gl where recent news articles, commentary, and company reports can be viewed.

Yours faithfully,



Roderick McIlree
Managing Director
Greenland Minerals and Energy Ltd

Table 1. Statement of Identified Mineral Resources, Kvanefjeld Multi-Element Project

Multi-Element Resources Classification, Tonnage and Grade										Contained Metal				
Cut-off	Classification	M tonnes	TREO ²	U ₃ O ₈	LREO	HREO	REO	Y ₂ O ₃	Zn	TREO	HREO	Y ₂ O ₃	U ₃ O ₈	Zn
(U ₃ O ₈ ppm) ¹		Mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Mt	Mt	Mt	M lbs	Mt
Kvanefjeld - March 2011														
150	Indicated	437	10929	274	9626	402	10029	900	2212	4.77	0.18	0.39	263	0.97
150	Inferred	182	9763	216	8630	356	8986	776	2134	1.78	0.06	0.14	86	0.39
150	Grand Total	619	10585	257	9333	389	9721	864	2189	6.55	0.24	0.53	350	1.36
200	Indicated	291	11849	325	10452	419	10871	978	2343	3.45	0.12	0.28	208	0.68
200	Inferred	79	11086	275	9932	343	10275	811	2478	0.88	0.03	0.06	48	0.20
200	Grand Total	370	11686	314	10341	403	10743	942	2372	4.32	0.15	0.35	256	0.88
250	Indicated	231	12429	352	10950	443	11389	1041	2363	0.24	2.53	2.63	178	0.55
250	Inferred	41	12204	324	10929	366	11319	886	2598	0.04	0.45	0.46	29	0.11
250	Grand Total	272	12395	347	10947	431	11378	1017	2398	0.28	2.98	3.09	208	0.65
300	Indicated	177	13013	374	11437	469	11906	1107	2414	2.30	0.08	0.20	146	0.43
300	Inferred	24	13120	362	11763	396	12158	962	2671	0.31	0.01	0.02	19	0.06
300	Grand Total	200	13025	373	11475	460	11935	1090	2444	2.61	0.09	0.22	164	0.49
350	Indicated	111	13735	404	12040	503	12543	1192	2487	1.52	0.06	0.13	98	0.27
350	Inferred	12	13729	403	12239	436	12675	1054	2826	0.16	0.01	0.01	10	0.03
350	Grand Total	122	13735	404	12059	497	12556	1179	2519	1.68	0.06	0.14	108	0.31
Zone 2 - March 2012														
150	Inferred	242	11022	304	9729	398	10127	895	2602	2.67	0.10	0.22	162	0.63
200	Inferred	186	11554	344	10223	399	10622	932	2802	2.15	0.07	0.17	141	0.52
250	Inferred	148	11847	375	10480	407	10887	961	2932	1.75	0.06	0.14	123	0.43
300	Inferred	119	12068	400	10671	414	11084	983	3023	1.44	0.05	0.12	105	0.36
350	Inferred	92	12393	422	10967	422	11389	1004	3080	1.14	0.04	0.09	85	0.28
Project Total														
Cut-off	Classification	M tonnes	TREO ²	U ₃ O ₈	LREO	HREO	REO	Y ₂ O ₃	Zn	TREO	HREO	Y ₂ O ₃	U ₃ O ₈	Zn
(U ₃ O ₈ ppm) ¹		Mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Mt	Mt	Mt	M lbs	Mt
150	Indicated	437	10929	274	9626	402	10029	900	2212	4.77	0.18	0.39	263	0.97
150	Inferred	424	10480	266	9257	380	9636	844	2401	4.45	0.16	0.36	249	1.02
150	Grand Total	861	10708	270	9444	391	9835	873	2305	9.22	0.34	0.75	512	1.98

¹There is greater coverage of assays for uranium than other elements owing to historic spectral assays. U₃O₈ has therefore been used to define the cutoff grades to maximise the confidence in the resource calculations.

²Total Rare Earth Oxide (TREO) refers to the rare earth elements in the lanthanide series plus yttrium.

Note: Figures quoted may not sum due to rounding.

ABOUT GREENLAND MINERALS AND ENERGY LTD.

Greenland Minerals and Energy Ltd (ASX – GGG) is an exploration and development company focused on developing high-quality mineral projects in Greenland. The Company's flagship project is the Kvanefjeld multi-element deposit (Rare Earth Elements, Uranium, Zinc), that is rapidly emerging as a premier specialty metals project. An interim report on pre-feasibility studies has demonstrated the potential for a large-scale multi-element mining operation. For further information on Greenland Minerals and Energy visit <http://www.ggg.gl> or contact:

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Greenland Minerals and Energy Ltd will continue to advance the Kvanefjeld project in a manner that is in accord with both Greenlandic Government and local community expectations, and looks forward to being part of continued community discussions on the social and economic benefits associated with the development of the Kvanefjeld Project.

The information in this report that relates to exploration targets, exploration results, geological interpretations, appropriateness of cut-off grades, and reasonable expectation of potential viability of quoted rare earth element, uranium, and zinc resources is based on information compiled by Mr Jeremy Whybrow. Mr Whybrow is a director of the Company and a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Whybrow has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Whybrow consents to the reporting of this information in the form and context in which it appears.

The geological model and geostatistical estimation for the Kvanefjeld and Zone 2 deposits were prepared by Robin Simpson of SRK Consulting. Mr Simpson is a Member of the Australian Institute of Geoscientists (AIG), and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Simpson consents to the reporting of information relating to the geological model and geostatistical estimation in the form and context in which it appears.