

### **Company Announcement**

Tuesday January 18<sup>th</sup>, 2011

## Greenland Minerals Reports Regional Multi-Element (REEs, U, Zn) Drill Intercepts

Greenland Minerals and Energy Limited ("GMEL" or "the Company", ASX:GGG) is pleased to report multi-element drill intercepts (rare earth element, uranium, zinc) from regional targets in the northern Ilimaussaq Complex, in Greenland. The initial drill intercepts confirm that extensive mineralization occurs up to 7km away from the Kvanefjeld resource. Assay results have been released after GMEL received permitting in December 2010 to fully evaluate the Kvanefjeld multi-element project. All results presented in this announcement are from holes drilled in 2008 and 2009. Results from the 2010 field season will be finalised in the coming weeks.

The northern Ilimaussaq Complex is already host to substantial rare earth element (REE), uranium and zinc resources at Kvanefjeld. The regional targets represent outcropping, or near-surface occurrences of lujavrite that form part of an interconnected ore system that extends over several kilometers. Lujavrite is an unusual rock-type that is host to the resources at Kvanefjeld. Three main target areas have been identified and are referred to herein as Steenstrupfjeld, Zone 2 and Zone 3.

# **Key intercepts include:**

Zone 2 hole ID	S001	116m	@ 1.2% TREO,	440 ppm U <sub>3</sub> O <sub>8</sub> ,	0.34% Zn
	<i>S001</i>	34m	@ 1.1% TREO,	$346 \text{ ppm } U_3O_8$ ,	0.36% Zn
Zone 3	N003	116m	@ 1.3% TREO,	363 ppm U <sub>3</sub> O <sub>8</sub> ,	0.35% Zn
	N002	43m	@ 1.4% TREO,	379 ppm U <sub>3</sub> O <sub>8</sub> ,	0.38% Zn
	N004	28m	@ 1.2% TREO,	$460\;ppm\;U_3O_8\text{,}$	0.36% Zn
	N001	18m	@ 1.5% TREO,	$462\;ppm\;U_3O_8\text{,}$	0.32% Zn
Steenstrupfjeld	K154	44m	@ 1.4% TREO,	328 ppm U <sub>3</sub> O <sub>8</sub> ,	0.30% Zn
		22m	@ 1.3% TREO,	377 ppm U <sub>3</sub> O <sub>8</sub> ,	0.35% Zn

### Introduction

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

Kvanefjeld is located within the Company's license over the northern Ilimaussaq Intrusive Complex; a unique geological entity that is highly prospective for specialty metals. A 457 million tonne JORC-compliant resource has already been defined at Kvanefjeld (see Appendix 1), which represents just a small percentage the broader Ilimaussaq ore field. An *Interim Report* on the Kvanefjeld pre-feasibility study was released in February 2010 that indicates the potential for the multi-element resources to sustain a large-scale mining operation for decades (*for more information visit the Company's website at* <a href="http://www.ggg.gl">http://www.ggg.gl</a>).

In 2011, whilst much of the Company's technical focus is on metallurgy and process development, resource development programs will continue, with the aim of establishing the location and grade profiles of the main resource hubs within the project area.

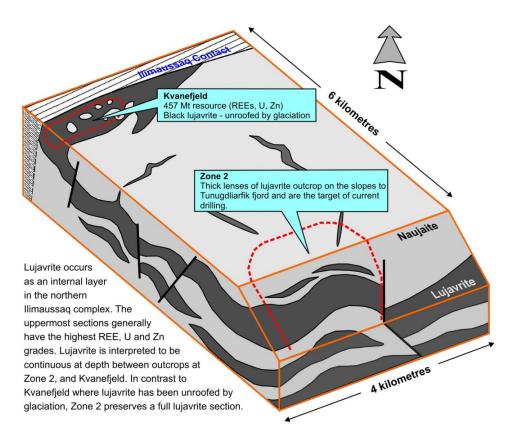


**Figure 1.** View over GMEL's multi-element project on the northern Ilimaussaq Complex in Greenland. Resources have been defined at Kvanefjeld, with Steenstrupfjeld, Zone 2 and Zone 3 representing new target areas. The distance from Kvanefjeld to Zone 2 is 6km.

## **Regional Multi-Element Targets**

The northern Ilimaussaq Complex is characterized by broadly sub-horizontal layers. An unusual form of nepheline syenite called lujavrite forms an internal layer that locally outcrops, and is the host to REE-uranium-zinc mineralization. The most extensive area of outcropping lujavrite occurs at Kvanefjeld, which has been the focal point of prior resource definition drilling. However, there are other areas of outcropping lujavrite, and a growing list of evidence to suggest that these outcropping zones are part of a large interconnected body of lujavrite, most of which occurs at depth beneath the overlying rock unit called naujaite.

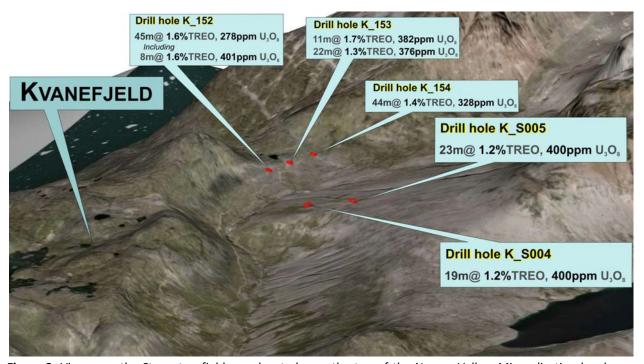
GMEL conducted geological and geophysical investigations into areas of outcropping lujavrite outside Kvanefjeld and has established three initial focal points for future resource definition. The first area occurs to the immediate northeast of Kvanefjeld, and is known as Steenstrupfjeld. The remaining two areas are presently referred to as Zones 2 and 3. Zone 2 occurs approximately 6 km south of Kvanefjeld, and the Company announced that drill holes had intersected significant intervals of lujavrite in mid-2010. Zone 3 occurs along the northeastern margin approximately 7 km from Kvanefjeld. The initial drill holes confirm the presence of extensive multi-element mineralization at each of the three new areas.



**Figure 2.** Schematic block diagram illustrating the broad sub-horizontal geometry of the northern Ilimaussaq Complex, and the relationship between Kvanefjeld and Zone 2.

### Steenstrupfjeld

Steenstrupfjeld occurs at the top of the Narsaq valley, to the immediate east of Kvanefjeld. Mineralised lujavrite outcrops and was recognized historically. However, recent drill holes that were originally intended to sterilize the adjacent plateau intersected mineralization under a thin veneer of cover up to 950m away from the outcropping mineralization.



**Figure 3.** View over the Steenstrupfjeld area located near the top of the Narsaq Valley. Mineralisation has been encountered over a 950m strike.

Table 1. Drill intercepts from Steenstupfjeld.

Hole_ID	From	То	Interval	TREO	U <sub>3</sub> O <sub>8</sub>	LREO	HREO	Y <sub>2</sub> O <sub>3</sub>	Zinc
	(m)	(m)	(m)	%	ppm	ppm	ppm	ppm	ppm
K_S004	4	23	19	1.2	400	10668	360	941	2797
K_S004	40	48	8	1.0	291	8899	305	789	1982
K_S004	80	90	10	0.9	269	8198	339	856	2247
K_S005	18	41	23	1.2	400	10170	373	1070	2470
K_S005	75	81	6	1.1	312	9990	368	1001	1651
K152	1	46	45	1.6	278	14476	348	791	3549
Including	3	11	8	1.9	401	17279	524	1195	4184
K152	118	124	6	1.1	227	9413	562	1126	2793
K153	0	11	11	1.7	382	15849	433	937	3968
K153	17	39	22	1.3	377	11638	443	1011	3494
K153	48	56	8	1.2	267	10669	398	859	3531
K154	32	76	44	1.4	328	12484	417	948	3019
Including	34	51	17	1.3	407	10816	564	1295	2331
K154	109	125	16	1.2	276	10982	390	905	3863

Intercepts calculated at 250 ppm  $\rm U_3O_8$  cut-off, maximum internal waste 4m, minimum intercept 5m.

<sup>\*</sup>TREO=LREO+HREO+Y2O3

### Zone 2

At **Zone 2** lujavrite occurs below a naujaite cap, but thick layers of lujavrite outcrop in the steep slopes that run between the ridge crest at 700m elevation, and Tunugdliarfik fjord. GMEL reported in mid-2010 that drilling had encountered significant intercepts of lujavrite. The results of the first hole drilled at Zone 2 are reported below, and confirm the discovery of significant REE-uranium mineralization within several thick lujavrite lenses. Based on outcrop geology the lenses are broadly sub-horizontal. The grade and continuity of multi-element mineralization are particularly encouraging. A further 11 holes were drilled at Zone 2 during the 2010 field season, with many encountering substantial intersections of lujavrite.



Figure 4. View over Zone 2. The distance between drill holes V001 and S001 is approximately 2km.

**Table 2.** Drill intercepts from the first hole drilled at Zone 2.

Hole_ID	From	То	Interval	*TREO	U <sub>3</sub> O <sub>8</sub>	LREO	HREO	Y <sub>2</sub> O <sub>3</sub>	Zinc
	(m)	(m)	(m)	%	ppm	ppm	ppm	ppm	ppm
S001	0	7	7	1.9	303	18838	281	333	3415
S001	14	36	22	1.2	314	11183	321	507	3095
S001	39	155	116	1.2	440	10869	370	821	3465
S001	168	178	10	0.9	348	7484	378	931	2825
S001	184	202	18	1.0	378	8204	433	1097	3782
S001	221	255	34	1.1	346	9918	454	1124	3648
S001	284	299	15	0.8	277	6267	420	1021	2153
S001	308	314	6	0.6	142	4926	340	666	1002

Intercepts calculated at 250 ppm  $\,U_3O_8$  cut-off, maximum internal waste 4m, minimum intercept 5m.

\*TREO=LREO+HREO+Y<sub>2</sub>O<sub>3</sub>

#### Zone 3

Zone 3 is located along the northeastern margin of the Ilimaussaq Complex and features outcropping lujavrite. All five holes drilled to date have intersected significant multi-element mineralization.

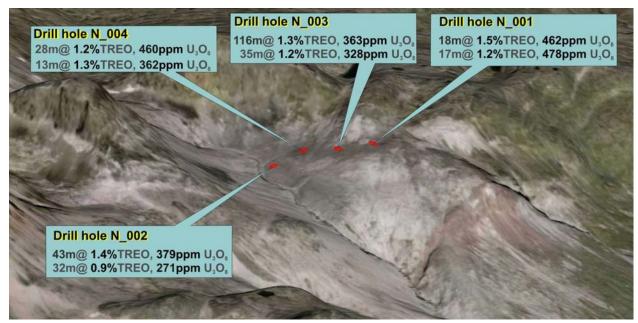


Figure 5. View over Zone 3. Multi-element mineralization has now been intersected over 520m strike.

**Table 3.** Drill intercepts from Zone 3.

Hole_ID	From	То	Interval	TREO*	U <sub>3</sub> O <sub>8</sub>	LREO	HREO	Y <sub>2</sub> O <sub>3</sub>	Zinc
	(m)	(m)	(m)	%	ppm	ppm	ppm	ppm	ppm
N001	32	39	7	1.1	307	9537	544	1147	1777
N001	82	100	18	1.5	462	13350	573	1406	3198
N001	108	125	17	1.2	478	10328	442	1138	2637
N002	0	43	43	1.4	379	12447	443	1090	3846
N002	54	65	11	1.3	296	11108	438	1062	2967
N002	91	123	32	0.9	271	7904	352	869	2468
N003	24	140	116	1.3	363	11948	384	958	3420
N003	145	180	35	1.2	328	10712	410	1017	3548
N003	194	208	14	1.1	261	9771	415	1008	2706
N004	1	7	6	1.1	299	9303	354	864	2724
N004	12	25	13	1.3	362	11876	370	921	3338
N004	30	58	28	1.2	460	10820	409	1073	3609
N005	2	15	13	1.6	427	13571	757	1781	3356
N005	26	37	11	1.6	409	14561	377	968	3217
N005	44	76	32	1.3	384	11757	408	1030	3788
N005	104	153	49	1.2	292	10521	400	947	3307
N005	160	168	8	1.0	294	8161	416	1021	2536

Intercepts calculated at 250 ppm U3O8 cut-off, maximum internal waste 4m, minimum intercept 5m

<sup>\*</sup>TREO=LREO+HREO+ $Y_2O_3$ 

## **Summary**

Initial regional multi-element drill intercepts from the northern Ilimaussaq Complex confirm the presence of widespread REE-uranium-zinc mineralization outside the Kvanefjeld area. Results confirm that the three new target areas, named Steenstrupfjeld, Zone 2 and Zone 3, all feature extensive multi-element mineralization. Further results will be released in the coming weeks as assay data from the 2010 field season is finalized. The three new areas discussed herein potentially represent new resource hubs within the broader project area and will continue to be evaluated.

Yours faithfully,

Roderick McIllree

Managing Director
Greenland Minerals and Energy Ltd

Table 4. The location of regional drill holes for which intercepts have been reported in this announcement.

Drill Hole	Depth	Projection	Zone	Easting (UTM)	Northing (UTM)	Azimuth	Dip
N001	125	WGS84	23N	453089	6759656	0	-90
N002	126	WGS84	23N	452765	6760065	0	-90
N003	215	WGS84	23N	452859	6759867	0	-90
N004	101	WGS84	23N	452996	6759786	0	-90
N005	169	WGS84	23N	452901	6759896	0	-90
S001	389	WGS84	23N	450352	6756388	0	-90
K_S004	200	WGS84	23N	447346	6760773	0	-90
K_\$005	197	WGS84	23N	447731	6760634	0	-90
K152	260	WGS84	23N	447720	6761516	0	-90
K153	236	WGS84	23N	447844	6761575	0	-90
K154	217	WGS84	23N	447993	6761623	0	-90
K155	239	WGS84	23N	447592	6761484	0	-90

#### ABOUT GREENLAND MINERALS AND ENERGY LTD.

Greenland Minerals and Energy Ltd (ASX – GGG) is an exploration and development company focused on unlocking the mineral riches of southern 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 <a href="http://www.ggg.gl">http://www.ggg.gl</a> or contact:

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Greenland Minerals and Energy Ltd is aware of and respects the Greenlandic government's stance on uranium exploration and development in Greenland – which is currently a zero tolerance approach. However, a new amendment has been introduced to the standard terms for exploration licenses in Greenland that creates a framework for the evaluation of projects that include uranium amongst other economic elements. Within this framework the Company is permitted to fully evaluate the Kvanefjeld project, inclusive of radioactive elements.

The Kvanefjeld Project is recognised as the world's largest undeveloped JORC-compliant resource of rare earth oxides (REO), in a multi-element deposit that is also enriched in uranium and zinc.

Greenland Minerals will continue to advance this world class 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 Results, Mineral Resources or Ore Reserves is based on information compiled by Jeremy Whybrow, who is a Member of The Australasian Institute of Mining and Metallurgy.

Jeremy Whybrow is a director of the company.

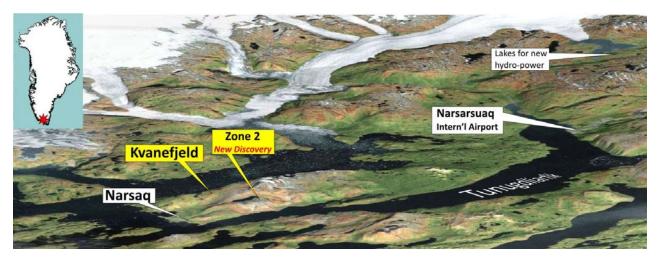
Jeremy Whybrow has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Jeremy Whybrow consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix 1.

## Kvanefjeld Multi-Element Resource Statement, June, 2009

At U <sub>3</sub> O <sub>8</sub> %	Tonnes	U <sub>3</sub> O <sub>8</sub> % <sup>2</sup>	U <sub>3</sub> O <sub>8</sub> lb/t	TREO% <sup>3</sup>	Zn%	Resource
cutoff grades <sup>1</sup>	(million)					category
	365	0.028	0.62	1.06	0.22	Indicated
0.015	92	0.027	0.59	1.12	0.22	Inferred
	457	0.028	0.62	1.07	0.22	TOTAL
	276	0.032	0.70	1.13	0.23	Indicated
0.020	63	0.031	0.69	1.21	0.24	Inferred
	339	0.032	0.70	1.14	0.23	TOTAL
	207	0.035	0.77	1.20	0.23	Indicated
0.025	43	0.036	0.78	1.31	0.25	Inferred
	250	0.035	0.77	1.22	0.24	TOTAL

- 1. There is greater coverage of assays for uranium than other elements owing to historic spectral assays.  $U_3O_8$  has therefore been used to define the cutoff grades to maximise the confidence in the resource calculations.
- **2.** Additional decimal places do not imply an added level of precision.
- **3.** Total 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.



View over the broader geography of GMEL's multi-element project on the northern Ilimaussaq Complex. The fjord system is open to the north Atlantic shipping lanes all year round. The distance from Narsaq to Narsarsuaq International Airport is 45km.