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GREENLAND
MINERALS AND ENERGY LTD

Company Announcement

Thursday February 17th, 2011

Greenland Minerals Confirms a Substantial New Multi-Element Deposit (REEs, U, Zn) With Big Drill Intercepts

Greenland Minerals and Energy Limited ("GMEL" or "the Company", ASX:GGG) is pleased to report drill intercepts from the 2010 drill program that confirm the discovery of a second substantial deposit of rare earth elements (REEs), uranium, and zinc in the northern Ilimaussaq Complex, in Greenland. The new discovery area, currently referred to as Zone 2, is located 6 km south of Kvanefjeld where the Company has defined one of the world's largest rare earth resources in a multi-element deposit that is also enriched in uranium and zinc (see Appendix 1). The results reported herein are from holes drilled at Zone 2 during the 2010 field season. Of the twelve holes drilled to date, all have intersected mineralized lujavrite (host to resources at Kvanefjeld), and nine holes have each returned greater than 100m in cumulative intercepts.

Key Zone 2 intercepts include:

Hole ID	*S006*	**185m**	@ 1.2% TREO, 442 ppm U_3O_8, 0.34% Zn
	S002	**131m**	@ 1.3% TREO, 447 ppm U_3O_8, 0.34% Zn
	S001	**116m**	@ 1.2% TREO, 440 ppm U_3O_8, 0.34% Zn*
	S008	64m	@ 1.3% TREO, 462 ppm U_3O_8, 0.33% Zn
	S003	42m	@ 1.4% TREO, 463 ppm U_3O_8, 0.39% Zn
	S003	46m	@ 1.5% TREO, 415 ppm U_3O_8, 0.37% Zn

**Intercept previously reported*

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Significantly, drilling to date has identified an upper lens at Zone 2 that locally exceeds 160m in thickness, and is of a higher grade tenor than resources defined at Kvanefjeld. It offers the opportunity to add significant tones of higher grade material to the Company's already extensive resource base. Importantly, Zone 2 remains open to the northwest, the direction in which the lujavrite horizon undulates before outcropping again at Kvanefjeld 6 km away. Mineralisation also remains open to the east but plunges to greater depth. The style of mineralization is the same as that at Kvanefjeld, for which the Company has established as base-case process flow sheet that is outlined in the Interim Pre-feasibility Report.

The resources of the northern Ilimaussaq complex are both extensive and unique, and offer the potential to produce both a light and heavy rare earth product, uranium and zinc concentrates, fluoride compounds and a zirconium product. GMEL's base-case scenario evaluates an operation to produce a rare earth concentrate, and a uranium oxide product. Current metallurgical programs are advancing the process route to produce both a light and heavy rare earth product (including yttrium), uranium and zinc concentrates.

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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 *(both light and heavy rare earth elements, uranium, and zinc)* 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 project area. 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* http://www.ggg.gl).

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 6 km.

In January 2011, GMEL released the initial regional intercepts from three new satellite deposits within the northern Ilimaussaq Complex. The results confirmed that extensive multi-element mineralization

occurs outside the Kvanefjeld resource. Only results from the first hole drilled at Zone 2 were available in the January release, which included an impressive intercept of **116m @ 1.2% TREO, 440 ppm U_3O_8, 0.35% Zn**. The results from holes drilled at Zone 2 during 2010 are released herein, and confirm the presence of a substantial new multi-element deposit within the northern Ilimaussaq Complex.

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 (see Figure 1).

GMEL conducted geological and geophysical investigations into areas of outcropping lujavrite outside Kvanefjeld and had 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. Initial intercepts from these regional targets were announced on January 18, 2011, with impressive multi-element intercepts reported from each area.

Zone 2 – *Unearthing a New Multi-Element Deposit*

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 were previously reported, and included broad intercepts of REE-uranium mineralization within several thick lujavrite lenses.

The results from the 11 holes that were drilled in 2010 are released herein and confirm the presence of *a second substantial multi-element deposit within the broader project area*. The grade and continuity of multi-element mineralization are extremely encouraging (e.g. S006 – **185m @ 1.2% TREO, 442 ppm U_3O_8**).

The deposit comprises a series of lenses, with a higher grade upper lens overlying a broader lower body. The upper lens, which is intersected by drill holes S001, S002, S003, S006, S007, and S008, locally exceeds 160m in thickness (see Figure 2). It remains open to the north. To the east, an inferred fault, or series of faults, disrupts the continuity of layering; however mineralization does continue east of this structural corridor.

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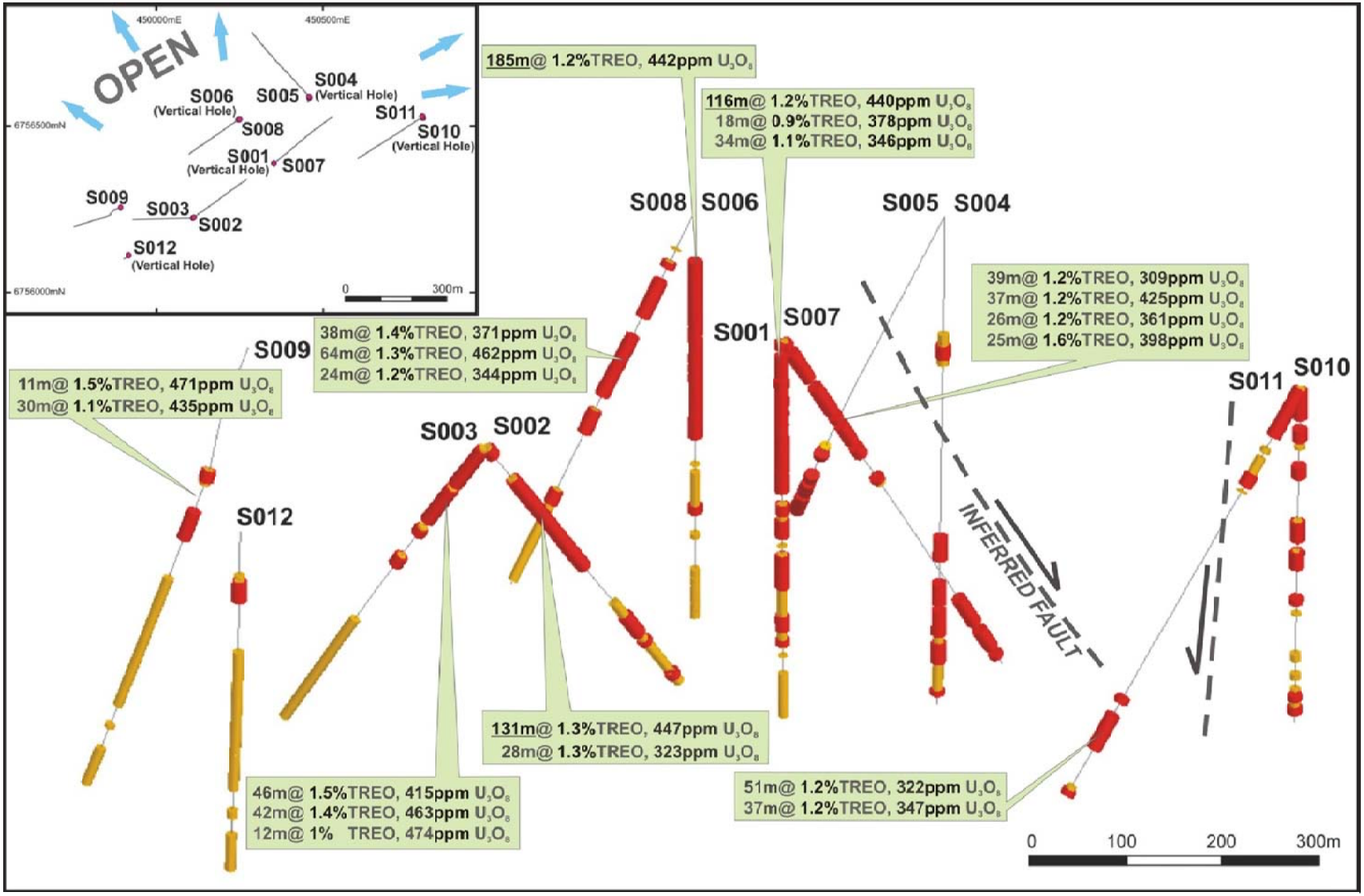

Figure 2. Oblique view through drill hole array at Zone 2, highlighting key intercepts. The red intervals represent significant intercepts, and the orange represents lujavrite of lower grade. A thick, higher-grade upper lens is intersected by the central drill holes (e.g. holes S001, S002, S003, S006 and S008). This overlies a broad lower-grade zone. A break in the continuity of layering occurs to the east (right of section), which could represent a fault zone or magmatic feeder zones. Mineralisation remains open to the northwest, and to the east. To see all components of the multi-element intercepts, see Table 1.

In 2011, GMEL will conduct a drilling campaign to establish initial resource estimates for Zone 2, and Zone 3. The program will aim to further increase the overall resource base with a focus on adding tones at the upper end of the grade range. This will serve to significantly strengthen the economics of the project. Importantly, mineralization at Zones 2 and 3 is similar to that at Kvanefjeld, and features the same mineral set. Therefore, all zones are amenable to the same process route.

Table 1. Significant multi-element drill intercepts from Zone 2 (continued over page).

Hole_ID	From	To	Interval	TREO*	U_3O_8	LREO	HREO	Y_2O_3	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
S002	2	13	11	1.2	346	11638	248	361	3335
S002	**48**	**179**	**131**	**1.3**	**447**	**12285**	**316**	**598**	**3385**
S002	**251**	**279**	**28**	**1.3**	**323**	**11772**	**401**	**999**	**3781**
S002	287	292	5	0.8	244	7403	321	749	1753
S002	335	342	7	0.8	263	6828	395	969	2046
S003	**3**	**49**	**46**	**1.5**	**415**	**13721**	**304**	**497**	**3682**
S003	**54**	**96**	**42**	**1.4**	**463**	**12809**	**328**	**601**	**3872**
S003	105	113	8	1.4	355	13515	246	482	3804
S003	141	153	12	1.0	474	8735	285	563	3179
S004	134	147	13	1.2	359	10342	432	1038	2948
S004	333	357	24	1.1	287	10305	336	722	341
S004	**381**	**403**	**22**	**1.7**	**426**	**15281**	**368**	**883**	**375**
S004	409	435	26	1.2	269	10571	449	962	1468
S004	443	464	21	1.1	290	9585	470	1018	1363
S004	492	497	5	1.3	311	11763	474	1024	2385
S005	454	463	9	1.3	275	12119	286	659	481
S005	**469**	**486**	**17**	**1.5**	**446**	**13206**	**542**	**1248**	**2271**
S005	**491**	**517**	**26**	**1.2**	**315**	**10115**	**520**	**1101**	**1758**
S006	**46**	**231**	**185**	**1.2**	**442**	**10596**	**426**	**1029**	**3370**
S006	303	311	8	1.0	309	8887	412	975	2225

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

***TREO = LREO+HREO+Y_2O_3**

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Table 1 continued.

Hole_ID	From (m)	To (m)	Interval (m)	TREO* %	U_3O_8 ppm	LREO ppm	HREO ppm	Y_2O_3 ppm	Zinc ppm
S007	1	6	5	1.8	274	17918	274	262	3272
S007	**14**	**53**	**39**	**1.2**	**309**	**11142**	**407**	**795**	**2768**
S007	**64**	**101**	**37**	**1.2**	**425**	**10452**	**433**	**1044**	**3224**
S007	106	112	6	1.0	368	8262	381	941	1480
S007	**118**	**144**	**26**	**1.0**	**361**	**8611**	**343**	**844**	**2719**
S007	150	163	13	1.0	466	8828	411	1024	3245
S007	195	200	5	0.7	188	6108	244	570	513
S007	368	402	34	1.1	279	10192	331	710	340
S007	**411**	**436**	**25**	**1.6**	**398**	**14746**	**352**	**865**	**467**
S007	444	449	5	1.6	258	14869	247	568	527
S008	47	53	6	1.1	291	9555	434	962	2198
S008	**66**	**104**	**38**	**1.4**	**371**	**12594**	**504**	**1205**	**2971**
S008	**124**	**188**	**64**	**1.2**	**462**	**10874**	**480**	**1129**	**3285**
S008	**203**	**227**	**24**	**1.2**	**344**	**10496**	**349**	**862**	**3279**
S008	286	300	14	1.5	287	13401	367	912	4869
S009	**125**	**136**	**11**	**1.5**	**471**	**13911**	**310**	**487**	**3714**
S009	**168**	**198**	**30**	**1.1**	**435**	**9824**	**318**	**745**	**2980**
S010	**1**	**31**	**30**	**1.2**	**336**	**10558**	**383**	**926**	**3599**
S010	**42**	**55**	**13**	**1.3**	**399**	**11161**	**508**	**1243**	**4337**
S010	81	94	13	1.0	237	8481	322	750	2048
S010	140	161	21	1.1	270	10163	375	802	1336
S010	172	190	18	0.9	296	7566	420	884	630
S010	323	329	6	1.6	285	14862	396	856	1220
S010	335	343	8	2.0	269	18622	581	1198	3674
S011	**0**	**51**	**51**	**1.2**	**322**	**10353**	**377**	**916**	**3244**
S011	92	104	12	1.0	270	8694	375	898	2264
S011	331	337	6	0.8	257	7530	286	606	361
S011	**350**	**387**	**37**	**1.2**	**347**	**10862**	**461**	**975**	**797**
S011	431	437	6	1.3	361	11301	575	1142	1991
S012	**51**	**72**	**21**	**1.1**	**397**	**9196**	**451**	**1079**	**2712**

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

***TREO = LREO+HREO+Y_2O_3**

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Summary

Drilling at Zone 2 during 2010 has unearthed a substantial new multi-element deposit within the northern Ilimaussaq Complex. Multiple significant intercepts confirm the presence of a large body of lujavrite that has very encouraging REE and uranium grades, with strong continuity over broad intervals. Zone 2 offers the potential to significantly add to the resource base defined at Kvanefjeld at the upper end of the grade range. The deposit remains open in a northerly direction and also to the east. Zone 2 is one of three new mineralized zones outside Kvanefjeld that has now been confirmed with drilling (see Company announcement released on January 18th, 2011). Upcoming drill campaigns in 2011 will aim to establish initial resources at these new target areas with an emphasis on pursuing higher grade material.

Yours faithfully,

Roderick McIllree

Managing Director
Greenland Minerals and Energy Ltd

Table 2. The location of Zone 2 drill holes for which intercepts have been reported in this announcement.

Drill Hole	Depth	Projection	Zone	Easting	Northing	Azimuth	Dip
S001	389	WGS84	23N	450352	6756388	0	-90
S002	351	WGS84	23N	450116	6756228	52	-60
S003	350	WGS84	23N	450114	6756227	267	-57
S004	509	WGS84	23N	450461	6756589	0	-90
S005	517	WGS84	23N	450461	6756589	315	-60
S006	422	WGS84	23N	450247	6756519	0	-90
S007	461	WGS84	23N	450354	6756388	50	-60
S008	386	WGS84	23N	450245	6756519	211	-60
S009	465	WGS84	23N	449894	6756257	230	-70
S010	353	WGS84	23N	450796	6756527	0	-90
S011	437	WGS84	23N	450796	6756527	192	-60
S012	353	WGS84	23N	449916	6756110	0	-90

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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 http://www.ggg.gl 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.

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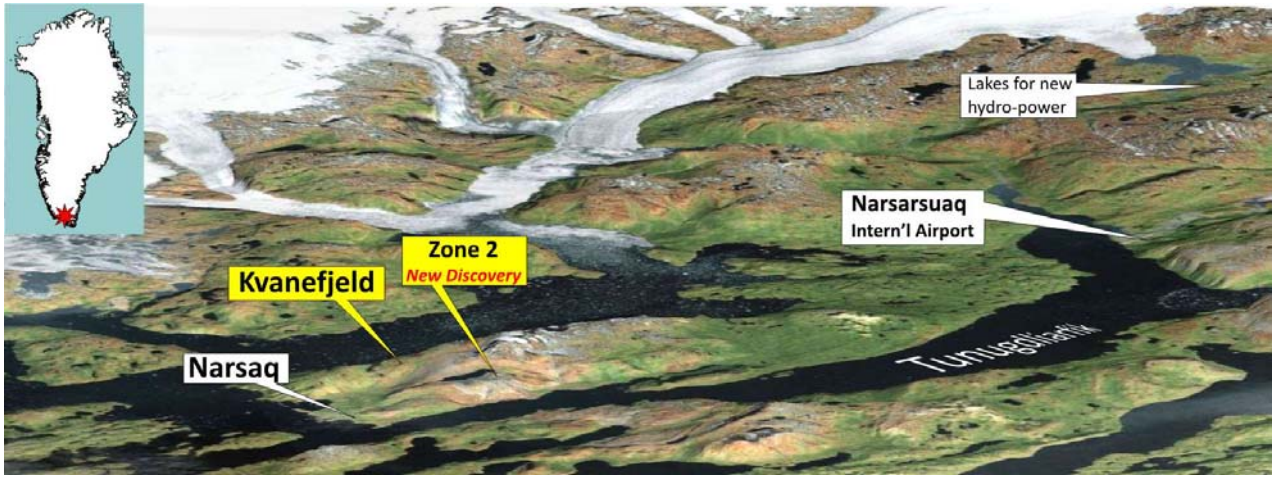
Appendix 1.

Kvanefjeld Multi-Element Resource Statement, June, 2009

At U_3O_8% cutoff grades[1]	Tonnes (million)	U_3O_8%[2]	U_3O_8 lb/t	TREO%[3]	Zn%	Resource 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.