

# **September 2018 Quarterly Report**

Wednesday 31st October 2018

# Highlights:

- Updated Environmental and Social Impact Assessments lodged with the Greenland Government
  - Translations of SIA to Greenlandic and Danish complete
  - Translations of Maritime Safety Study complete
  - Translations of EIA nearing completion
- MoU entered with leading rare earth company Shenghe that sets strategic frame work for product off-take and marketing, with consideration of:
  - Off-take of RE products in a variety of forms
  - Development of a project finance strategy
  - Development of project-specific RE separation capacity outside China
- IAEA conduct successful site visit inspection
- Team of top engineering firms visit site as part of civil engineering optimisation
  - Optimised civil engineering design work set to reduce civil capital costs substantially
- Outlook for rare earth and uranium sectors strengthening
  - Rare earth supply-side reform continues as demand outlook grows
  - China domestic rare earth production limited to lowest levels in five years
  - Uranium price trending up
- Positive shareholder support; 30.3M GGGOB options exercised prior to expiry at the end of Q3, raising \$2.4M



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## **September 2018 Quarterly Activities**

The September Quarter saw significant activity on-site at the Kvanefjeld Project area in southern Greenland. Greenland Minerals hosted a delegation from the Bank of Greenland to provide an overview and outlook on the Project status, and a successful site inspection by the International Atomic Energy Agency (IAEA).

Optimisation of the Kvanefjeld Project continued through the quarter with ongoing metallurgical work, and importantly, on-site civil engineering studies. A team of engineers from specialist international engineering groups conducted on-site studies and surveys. Initial follow up work has now been completed by Tetra Tech with a major reduction in civil earth works and associated capital costs.

Updated Environmental and Social Impact Assessments were lodged with the Greenland government, with reviews underway. Translations of the SIA to Greenlandic and Danish has been completed, and translations of the EIA are nearing completion. The official acceptance of a mining license application requires that the impact assessments are submitted in Greenlandic and Danish. Meetings were conducted during the quarter in both Greenland and Denmark to address the updated impact assessments and the next steps in the licensing process.

Rare earth supply continues to be short with China announcing reductions in their domestic production through the remainder of 2018. Supply restrictions could lead to price increases for the main magnet metals in neodymium, praseodymium, dysprosium and terbium. China's ongoing industry consolidation and supply side reform continues to underpin the need for establishing new rare earth supply networks. The uranium price also rose steadily during Q3, with the price rising from around USD\$23/lb  $U_3O_8$  to around \$27 (+17%).

The Kvanefjeld Project, 100% owned by GML, is underpinned by a JORC-code compliant resource of >1 billion tonnes, and an ore reserve estimate of 108 million tonnes to sustain an initial 37-year mine life. It is projected to be one of the largest global producers of key magnet metals including neodymium, praseodymium, dysprosium and terbium, along with by-production of uranium and zinc.

The Kvanefjeld Project is located near the southern tip of Greenland near existing infrastructure, including an international airport, and has year-round direct shipping access to the project area.

Shenghe is a leader in RE processing technology, one of the largest RE producers globally, and is the largest shareholder in GML. Both companies are working to optimise Kvanefjeld, and develop the project as a low-cost, long-life cornerstone to future rare earth supply.



### **Engineering Team Conducts Site Visit to Optimise Civil Design**

To optimise civil design and project construction GML assembled a team of international engineering groups.

- PND Engineers (USA) provided two experienced port design engineers for the site visit. PND are
  specialists at cold climate port design and are tasked with designing the off-shore port facilities.
  Direct shipping access is a key advantage for the Kvanefjeld Project, and efficient port facilities
  are important for year-round materials handling and transfer.
- Nuna Logistics (Canada) bring extensive cold climate experience and are working on optimisation
  of civil and plant layouts. Nuna provided two experienced engineers for the site visit to assess
  practical aspects of civil works and port construction. They are a 51% First Nations owned
  company which places great emphasis on leaving a positive legacy at each of its project sites. They
  have excellent experience in operating in cold climate environment and providing jobs/training
  for local communities.
- **Tetra Tech** is a major contributors to the Kvanefjeld feasibility program and continue to work on optimising civil and process plant layouts. A civil designer and cold-climate geotechnical engineer attended the site visit.
- China Communications Construction Co Ltd (C-CCC) is China's largest engineering and construction company and is ranked in the Fortune 500. C-CCC provided four participants for the site visit, including personnel with extensive experience in onshore port facilities. The visit provided an excellent opportunity for C-CCC to work alongside Arctic specialist groups and consider broader aspects of the Kvanefjeld project for further involvement.

Following onsite investigations of the project area (including sites for the proposed mine, processing plant, tailings storage, port and roads) the multi-disciplinary engineering groups confirmed that the construction of the Kvanefjeld Project has no major impediments and is relatively straight forward owing to a number of site-specific advantages which include:

- 1. Located near an existing town (Narsaq), with infrastructure benefits including port and fuel storage that greatly assists the pioneering (early) phase of project development.
- 2. Local labour is available that can be trained and utilised effectively from the early construction phase and onward into mine development.
- 3. Abundance of high-quality construction suitable rock material on-site, which can be used for roads, culverts, plant site preparation and port construction.
- 4. Year-round shipping access for fuels, construction material and labour.



Being located near the southern tip of Greenland and on the coastal fringe, winters are not exceptionally cold, with the weather relatively mild allowing for year-round construction.

By October, Tetra Tech had completed their work to produce a heavily revised pad for the process plant, that is shaped to match the natural land contours thereby leading to a substantial reduction in the amount of civil construction effort.

Nuna Logistics is currently compiling a new civil construction cost estimate for the project based on the updated civil design which will quantify the cost reductions. Nuna Logistics are a Canadian Civil and Mining Contractor with specific arctic expertise. The results of the new civil costs are expected in late November.

### MoU Entered with Shenghe for the Commercialisation of Kvanefjeld

With substantial progress achieved in optimising the Kvanefjeld Project over the last 12 months, GML and Shenghe have entered into a Memorandum of Understanding which will guide the parties' plans for the commercialisation of the Kvanefjeld Project.

Shenghe is one of the largest and fastest growing rare earth companies globally and has full proficiency from mining and beneficiation through to the production of high-purity metals and oxides. Shenghe is an experienced offtake partner currently selling rare earth products into an established international customer base in North America, Europe, Japan, Middle East and China. With a market capitalisation of ~US\$3 billion, Shenghe is listed on the Shanghai stock exchange under code 600392 and considered the most internationally focussed entity within the Chinese rare earth sector.

The overarching strategy of both parties is to develop the Kvanefjeld Project, integrate rare earth concentrate with downstream processing, and establish product off-take, marketing and sales.

The MoU covers two key areas; product offtake and marketing of rare earth products produced by the Project, and strategic development execution.

### 1. Acquisition and Marketing of Project Output

- Shenghe intends to acquire all rare earth output produced at the Project whether as a mineral or chemical concentrate product on arm's length pricing reflecting published internationally traded prices.
- Shenghe agrees to enter a supplementary marketing arrangement with the Company to undertake international marketing of any rare earth products that Shenghe does not acquire.



 The Company and Shenghe will negotiate in good faith to conclude binding agreements on these issues within three months of their mutual agreement to and acceptance of the optimised flowsheet for the Project.

#### 2. Strategic Development Plan

The Company and Shenghe have agreed a Strategic Development Plan for the Project which encompasses

- Consideration of a staged development path to enable an earlier production of rare earth concentrate before a second stage refinery is constructed in Greenland;
- Potential development of a non-China based rare earth separation plant to facilitate the supply of Kvanefjeld rare earth product directly to international demand centres
- A process to identify collaboration partners in China with experience in project development for the delivery of processing infrastructure, capital works, engineering and construction and an interest in possible co-investment in some aspects of the Project;
- A process to secure funding partners in China to secure project financing for the optimal Project configuration subject to Shenghe's decision regarding their acquisition of an equity interest in the Project as agreed in the Subscription Deed of 20 September 2016.

Shenghe is also playing a key role in the restart of the Mountain Pass rare earth mine in California through the provision of technical services and product marketing.

#### **IAEA Successful Routine Site Inspection**

The Treaty on the Non-Proliferation of Nuclear Weapons, commonly known as the Non-Proliferation Treaty (NPT), is an international treaty with the objective, amongst others, of preventing the spread of nuclear weapons and weapons technology. Denmark is a signatory to the Nuclear Non-Proliferation Treaty (NPT).

The International Atomic Energy Agency (the IAEA) is the agency charged with the responsibility of ensuring that signatories to the NPT honour commitments not to use civil nuclear programmes for nuclear-weapons purposes. The IAEA gives effect to this responsibility by entering Safeguards Agreements with NPT states.

Denmark has entered a Safeguards Agreement with the IAEA and has entered into a further complementary protocol (the Protocol) specifically in respect of Greenland. Under a Safeguards



Agreement the IAEA has the "right and obligation" to ensure that appropriate safeguards are applied and in order to do this needs to carry out regular evaluations including physical inspections.

Pursuant to an invitation from the Government of Denmark issued on July 4, 2018, the IAEA conducted its first site inspection of the Company's Kvanefjeld Project site and associated facilities on August 28, 2018. The objective of the visit was "to assure the absence of undeclared nuclear material and activities at Greenland Minerals' exploration site and the nearby facilities".

The IAEA inspectors completed a visual inspection of all project areas, utilised radiation detection and measurement devices and facilitated a discussion of reporting requirements under the terms of the Protocol.

The Director General of the IAEA Yukiya Amano visited the Kvanefjeld Project in May 2017 along with Greenland's Premier Kim Kielsen (company announcement, May 15<sup>th</sup>, 2017). This followed on from Greenland formalising its status as a signatory to several important international nuclear conventions in September 2016, at the 60<sup>th</sup> General Conference of the IAEA in Vienna (company announcement, September 29<sup>th</sup>, 2016).

Uranium will be produced as one of series a by-products of rare earth production at Kvanefjeld, at low incremental cost.

## **Permitting Update**

GML has lodged the updated Environmental and Social Impact Assessments (EIA, SIA) for the Kvanefjeld Project which are undergoing content review (previously announced). The Feasibility Study and JORC-code compliant Mineral Resource Estimate and Ore Reserve Statement have also been lodged as part of the mining license application process.

Official acceptance of a mining license application and public consultation requires submission of the EIA, SIA and the Maritime Safety Study in Greenlandic and Danish.

Translations of the Maritime Safety Study and the SIA are complete. Translations of the EIA are scheduled for completion by the end of October.

### **Kvanefjeld Metallurgical Optimisation**

Technical optimisation of Kvanefjeld is part of an on-going program of co-operation with leading rare earth company and major shareholder Shenghe. This strategy sees the integration of world-leading Chinese rare



earth processing technology with one the world's most significant rare earth projects, to develop a simpler, lower cost rare earth value chain.

As previously announced experts from two leading Chinese laboratories visited Perth to conduct further flotation test work. Both groups had produced exceptional results in improving the flotation performance. The test work in Australia aimed to evaluate each method further as a basis for selecting the preferred process to take forward.

Further work is now underway in China by Baotou Meng Rong Fine Materials Co Ltd (BTMR). They are a privately-owned technology and technical service provision company based in Baotou, Inner Mongolia.

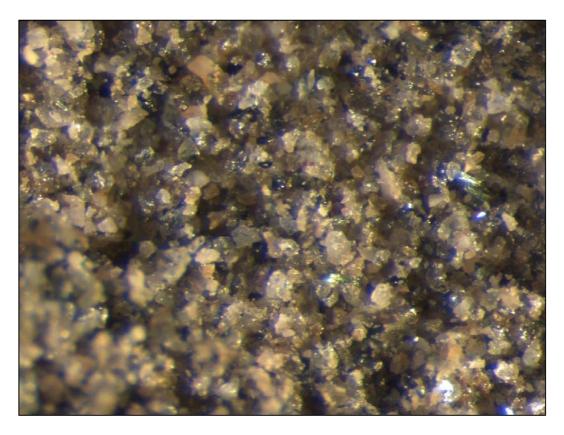


Figure 1. Steenstrupine mineral concentrate produced from BTMR test work conducted in Perth laboratories.

The BTMR produce their own range of specialty flotation collectors. This allows them to customise the chemistry of their collectors to target specific minerals selectively. The BTMR approach is ideal for the unique nature of the REE ore minerals at Kvanefjeld, which will be the first large-scale non -refractory source of rare earth materials. A customised approach is therefore required.

GML looks forward to providing further updates as the work program progresses.



### **Greenland's Role in New RE Supply Chains**

GML is at the forefront of a strategic evolution in rare earth supply. Major changes are coming to global RE supply, with China looking to cap primary production in 2020, as a point when demand is set to surge. Prior to establishing a strategic relationship with leading rare earth company Shenghe in 2016, the Company had been actively engaging the Chinese rare earth industry for a number of years; a process which provided strong insight into how the industry was reshaping.

Kvanefjeld has a number of key attributes that, when integrated with Shenghe's downstream processing technology and capacity, can play an important role in new supply networks. These include:

- ✓ Scale largest code-compliant rare earth resource, ore reserve for initial 37-year mine life
- ✓ Simple mining with 1:1 strip ratio over initial 37-year mine life
- ✓ Multiple by-product revenue streams to strengthen project economics (U<sub>3</sub>O<sub>8</sub>, zinc, fluorspar)
- ✓ Composition ideal production profile across key rare earths Nd, Pr, Tb, Dy
- ✓ Yttrium enrichment is highly beneficial for latest RE separation technology
- ✓ RE minerals that allow for simple processing, which will be maximised by technical optimisation underway with Shenghe
- ✓ Favourable country and project location with direct shipping access, international airport nearby
- ✓ Regulatory framework implemented to manage project operation and export controls

Greenland Minerals and Shenghe are considering a staged development to expediate project development. This would see initial downstream processing take place in China, with project-specific downstream processing jointly established outside of China. Kvanefjeld has the scale and longevity to justify the development of new supply chains to meet the growing needs of a number of demand centers.

-ENDS-



#### **About Shenghe Resources Holding Co. Ltd**

Shenghe Resources Holding Co. Ltd (SSE 600392), (Shenghe) is a public company exclusively focused on mining and processing rare earth ores, and producing high purity rare earth oxides, metals and alloys along with a range of rare earth products. Shenghe is listed on Shanghai Stock Exchange (since 2012) and, as at 28 July 2017 had 1.76 billion shares on issue and a market capitalization of approximately RMB 16 billion or AUD 3.2 billion.

Shenghe has a diversified background of its major shareholders. As at 20 June, 2017, the Institute of Multipurpose Utilization of Mineral Resources (IMUMR), a state owned scientific research institute specializing in mineral resources, holds 14.04%, Mr Wang Quangen, former engineer of IMUMR holds 6.85% and the Sichuan Giastar Enterprise Group, a private company involved in the agricultural industry holds 5.52%.

Shenghe is headquartered in Chengdu, Sichuan Province and is a single industry company with mining and processing activities in a number of Chinese centres, and has commenced the strategy of extending business outside China to increase the focus on overseas resources and international markets. Shenghe is involved at all levels of the rare earth industry, from mining through processing to the production of end products. Significantly, Shenghe also holds Chinese production quotas for the mining and separation/refining of rare earths.

For Shenghe, investment in GML is aimed to secure access to rare earth resources outside of China which are capable of supporting a range of rare earth businesses, facilitating long term growth opportunities.

### **About the Kvanefjeld Project**

GML's primary focus is centred on the northern Ilimaussaq Intrusive Complex in southern Greenland. The project includes several large scale multi-element resources including Kvanefjeld, Sørensen and Zone 3. Global mineral resources now stand at **1.01** billion tonnes (JORC-code 2012 compliant).

The deposits are characterised by thick, persistent mineralisation hosted within sub-horizontal lenses that can exceed 200m in true thickness. Highest grades generally occur in the uppermost portions of deposits, with overall low waste-ore ratios.

Less than 20% of the prospective area has been evaluated, with billions of tonnes of lujavrite (host-rock to defined resources) awaiting resource definition.

While the resources are extensive, a key advantage to the Kvanefjeld project is the unique rare earth and uranium-bearing minerals. These minerals can be effectively beneficiated into a low-mass, high value concentrate, then leached with conventional acidic solutions under atmospheric conditions to achieve particularly high extraction levels of both heavy rare earths and uranium. This contrasts to the highly refractory minerals that are common in many rare earth deposits that require technically challenging and costly processing. The rigorously developed process route for Kvanefjeld has been the subject of several successful pilot plant campaigns.



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

Kvanefjeld is slated to produce a significant output of critical rare earths (Nd, Pr, Eu, Dy, Tb), with by-production of uranium, zinc, and bulk light rare earths (La, Ce). Low incremental cost of recovering by-products complements the simple metallurgy to deliver a highly competitive cost structure.

Rare earth elements (REEs) are used in a wide variety of applications. Most notably, rare earth elements make the world's strongest permanent magnets. The magnet industry continues to be a major growth area, owing to the essential requirement of high-powered magnets in many electrical applications.

Magnetism is the force that converts electricity to motion, and vice-versa in the case of renewable energy such as wind power. In recent years growth in rare earth demand has been limited by end-user concerns over pricing instability and surety of supply; however, demand has returned and the outlook continues to strengthen.

Kvanefjeld provides an excellent opportunity to introduce a large, stable supplier at prices that are readily sustainable to end-users. In addition, rare earths from Kvanefjeld will be produced in an environmentally sustainable manner further differentiating it as a preferred supplier of rare earth products to end-users globally. These factors serve to enhance demand growth.

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.

## **Tenure, Permitting and Project Location**

#### Tenure

Greenland Minerals Ltd (ABN 85 118 463 004) is a company listed on the Australian Securities Exchange. The Company has conduct extensive exploration and evaluation of license EL2010/02. The Company controls 100% of EL2010/02 through its Greenlandic subsidiary.

The tenement is classified as being for the exploration of minerals. The project hosts significant uranium, rare earth element, and zinc mineral resources (JORC-code compliant) within the northern Ilimaussaq Intrusive Complex.

Historically the Kvanefjeld deposit, which comprises just a small portion of the Ilimaussaq Complex, was investigated by the Danish Authorities. GML has since identified a resource base of greater than 1 billion tonnes, including the identification and delineation of two additional deposits. The Company has conducted extensive metallurgical and process development studies, including large scale pilot plant operations.

#### **Permitting**

Greenland Minerals Limited is permitted to conduct all exploration activities and feasibility studies for the Kvanefjeld. The company's exploration license is inclusive of all economic components including both REEs and uranium.

A pre-feasibility study was completed in 2012, and a comprehensive feasibility study completed in 2016. A mining license application was handed over to the Greenland Government in December 2015, which addresses an initial development strategy. The project offers further development opportunities owing to the extensive mineral resources.

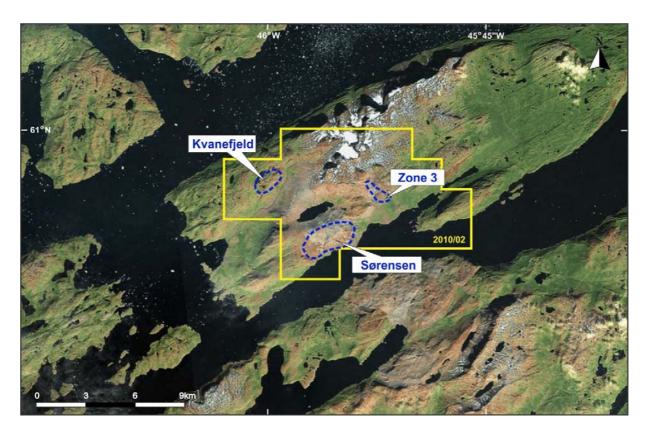
#### Location

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 8 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 and environmental activities are managed.

Access to the Kvanefjeld plateau (at approximately 500m 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.



Overview of GML's 100% controlled license EL2010/02. A mining license application has been lodged.

<b>Exploration License</b>	Location	Ownership						
EL 2010/02	Southern Greenland	Held by Greenland Minerals (Trading) A/S, a full owned subsidiary of GML.						
Capital Structure – As at 4 October 2018								
Total Ordinary shares	1,132,649,196							
Unquoted options exercisable at \$0.15 on or before 31 March 2021								
Employee performance rights (subject to vesting hurdles – refer								
announcement 22 Dec 2	2016)		6,000,000					

Please visit the company's website at <a href="www.ggg.gl">www.ggg.gl</a> where recent news articles, commentary, and company reports can be viewed.

GREENLAND
MINERALS LTD
Statement of Identified Mineral Resources, Kvanefjeld Project, Independently Prepared by SRK Consulting (February, 2015)

	Multi-El	ement Resoui	ces Classif	ication, T	onnage a	nd Grade					Con	Contained Metal			
<b>Cut-off</b>	Classification	M tonnes	TREO <sup>2</sup>	U₃O <sub>8</sub>	LREO	HREO	REO	$Y_2O_3$	Zn	TREO	HREO	$Y_2O_3$	U <sub>3</sub> O <sub>8</sub>	Zn	
$(U_3O_8 ppm)^1$		Mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Mt	Mt	Mt	M lbs	Mt	
Kvanefjeld - Fe	bruary 2015														
150	Measured	143	12,100	303	10,700	432	11,100	978	2,370	1.72	0.06	0.14	95.21	0.34	
150	Indicated	308	11,100	253	9,800	411	10,200	899	2,290	3.42	0.13	0.28	171.97	0.71	
150	Inferred	222	10,000	205	8,800	365	9,200	793	2,180	2.22	0.08	0.18	100.45	0.48	
150	Total	673	10,900	248	9,600	400	10,000	881	2,270	7.34	0.27	0.59	368.02	1.53	
200	Measured	111	12,900	341	11,400	454	11,800	1,048	2,460	1.43	0.05	0.12	83.19	0.27	
200	Indicated	172	12,300	318	10,900	416	11,300	970	2,510	2.11	0.07	0.17	120.44	0.43	
200	Inferred	86	10,900	256	9,700	339	10,000	804	2,500	0.94	0.03	0.07	48.55	0.22	
200	Total	368	12,100	310	10,700	409	11,200	955	2,490	4.46	0.15	0.35	251.83	0.92	
250	Measured	93	13,300	363	11,800	474	12,200	1,105	2,480	1.24	0.04	0.10	74.56	0.23	
250	Indicated	134	12,800	345	11,300	437	11,700	1,027	2,520	1.72	0.06	0.14	101.92	0.34	
250	Inferred	34	12,000	306	10,800	356	11,100	869	2,650	0.41	0.01	0.03	22.91	0.09	
250	Total	261	12,900	346	11,400	440	11,800	1,034	2,520	3.37	0.11	0.27	199.18	0.66	
300	Measured	78	13,700	379	12,000	493	12,500	1,153	2,500	1.07	0.04	0.09	65.39	0.20	
300	Indicated	100	13,300	368	11,700	465	12,200	1,095	2,540	1.34	0.05	0.11	81.52	0.26	
300	Inferred	15	13,200	353	11,800	391	12,200	955	2,620	0.20	0.01	0.01	11.96	0.04	
300	Total	194	13,400	371	11,900	471	12,300	1,107	2,530	2.60	0.09	0.21	158.77	0.49	
350	Measured	54	14,100	403	12,400	518	12,900	1,219	2,550	0.76	0.03	0.07	47.59	0.14	
350	Indicated	63	13,900	394	12,200	505	12,700	1,191	2,580	0.87	0.03	0.07	54.30	0.16	
350	Inferred	6	13,900	392	12,500	424	12,900	1,037	2,650	0.09	0.00	0.01	5.51	0.02	
350	Total	122	14,000	398	12,300	506	12,800	1,195	2,570	1.71	0.06	0.15	107.45	0.31	

# Statement of Identified Mineral Resources, Kvanefjeld Project, Independently Prepared by SRK Consulting (February, 2015)

	Multi-El	ement Resoui	rces Classif	ication, T	onnage a	nd Grade					Conf	tained Me	etal	
<b>Cut-off</b>	Classification	M tonnes	TREO <sup>2</sup>	U <sub>3</sub> O <sub>8</sub>	LREO	HREO	REO	$Y_2O_3$	Zn	TREO	HREO	$Y_2O_3$	$U_3O_8$	Zn
$(U_3O_8 ppm)^1$		Mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Mt	Mt	Mt	M lbs	Mt
Sørensen - Ma	rch 2012													
150	Inferred	242	11,000	304	9,700	398	10,100	895	2,602	2.67	0.10	0.22	162.18	0.63
200	Inferred	186	11,600	344	10,200	399	10,600	932	2,802	2.15	0.07	0.17	141.28	0.52
250	Inferred	148	11,800	375	10,500	407	10,900	961	2,932	1.75	0.06	0.14	122.55	0.43
300	Inferred	119	12,100	400	10,700	414	11,100	983	3,023	1.44	0.05	0.12	105.23	0.36
350	Inferred	92	12,400	422	11,000	422	11,400	1,004	3,080	1.14	0.04	0.09	85.48	0.28
Zone 3 - May 2	012													
150	Inferred	95	11,600	300	10,200	396	10,600	971	2,768	1.11	0.04	0.09	63.00	0.26
200	Inferred	89	11,700	310	10,300	400	10,700	989	2,806	1.03	0.04	0.09	60.00	0.25
250	Inferred	71	11,900	330	10,500	410	10,900	1,026	2,902	0.84	0.03	0.07	51.00	0.20
300	Inferred	47	12,400	358	10,900	433	11,300	1,087	3,008	0.58	0.02	0.05	37.00	0.14
350	Inferred	24	13,000	392	11,400	471	11,900	1,184	3,043	0.31	0.01	0.03	21.00	0.07
All Deposits – 0	Grand Total													
150	Measured	143	12,100	303	10,700	432	11,100	978	2,370	1.72	0.06	0.14	95.21	0.34
150	Indicated	308	11,100	253	9,800	411	10,200	899	2,290	3.42	0.13	0.28	171.97	0.71
150	Inferred	559	10,700	264	9,400	384	9,800	867	2,463	6.00	0.22	0.49	325.66	1.38
150	<b>Grand Total</b>	1010	11,000	266	9,700	399	10,100	893	2,397	11.14	0.40	0.90	592.84	2.42

<sup>&</sup>lt;sup>1</sup>There is greater coverage of assays for uranium than other elements owing to historic spectral assays. U<sub>3</sub>O<sub>8</sub> has therefore been used to define the cutoff grades to maximise the confidence in the resource calculations.

# Kvanefjeld Ore Reserves Estimate – April 2015

Class	Inventory (Mt)	TREO (ppm)	LREO (ppm)	HREO (ppm)	Y <sub>2</sub> O <sub>3</sub> (ppm)	U₃O <sub>8</sub> (ppm)	Zn (ppm)
Proven	43	14,700	13,000	500	1,113	352	2,700
Probable	64	14,000	12,500	490	1,122	368	2,500
Total	108	14,300	12,700	495	1,118	362	2,600

<sup>&</sup>lt;sup>2</sup>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.



#### ABOUT GREENLAND MINERALS LTD.

Greenland Minerals 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 Rare Earth Project (rare earth elements, uranium, zinc). A pre-feasibility study was finalised in 2012, and a comprehensive feasibility study was completed in 2015 and updated following pilot plant operations in 2016. The studies highlight the potential to develop Kvanefjeld as a long-life, low cost, and large-scale producer of rare earth elements; key enablers to the electrification of transport systems.

GML is working closely with major shareholder and strategic partner Shenghe Resources Holding Co Ltd to develop Kvanefjeld as a cornerstone of future rare earth supply. An exploitation (mining) license application for the initial development strategy has been undergoing review by the Greenland Government through the latter part of 2016 and through 2017.

In 2017-18, GML continues to undertake technical work programs with Shenghe Resources Holding Co Ltd that aim to improve the metallurgical performance, simplify the development strategy and infrastructure footprint in Greenland, enhance the cost-structure, and ensure that Kvanefjeld is aligned with downstream processing. In addition, the Company continues its focus on working closely with Greenland's regulatory bodies on the processing of the mining license application and maintaining regular stakeholder updates.

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Greenland Minerals 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 stakeholder discussions on the social and economic benefits associated with the development of the Kvanefjeld Project.

#### Competent Person Statement - Mineral Resources Ore Reserves and Metallurgy

The information in this report that relates to Mineral Resources is based on information compiled by Mr Robin Simpson, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Simpson is employed by SRK Consulting (UK) Ltd ("SRK") and was engaged by Greenland Minerals Ltd on the basis of SRK's normal professional daily rates. SRK has no beneficial interest in the outcome of the technical assessment being capable of affecting its independence. Mr Simpson has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Robin Simpson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in the statement that relates to the Ore Reserves Estimate is based on work completed or accepted by Mr Damien Krebs of Greenland Minerals Ltd and Mr Scott McEwing of SRK Consulting (Australasia) Pty Ltd. The information in this report that relates to metallurgy is based on information compiled by Damien Krebs.

Damien Krebs is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the type of metallurgy and scale of project under consideration, and to the activity he is undertaking, to qualify as Competent Persons in terms of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 edition). The Competent Persons consent to the inclusion of such information in this report in the form and context in which it appears.

Scott McEwing is a Fellow and Chartered Professional of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Persons in terms of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 edition). The Competent Persons consent to the inclusion of such information in this report in the form and context in which it appears.

The mineral resource estimate for the Kvanefjeld Project was updated and released in a Company Announcement on February 12<sup>th</sup>, 2015. The ore reserve estimate was released in a Company Announcement on June 3<sup>rd</sup>, 2015. There have been no material changes to the resource estimate, or ore reserve since the release of these announcements