



Company Announcement, September 14, 2017

## **Kvanefjeld Project Update:**

### **Field Activities in Greenland Complete**

- **Activities in Greenland have been focussed on data generation and stakeholder meetings to support finalising impact assessments for the Kvanefjeld Project**
- **Sampling programs undertaken by independent environmental consultant Orbicon to generate supplementary environmental data complete**
- **Representatives from Greenland's Environmental Agency for Mineral Resource Assessment (EAMRA) and Danish Centre for Environment (DCE) in Narsaq to conduct baseline checks and community updates**
- **EIA, SIA consultant 'Shared Resources' in Narsaq and Nuuk to visit project area, and conduct meetings with a range of stakeholders, regulatory departments**
- **Shenghe personnel onsite to build familiarity with geology of the project area**

## **Background**

Greenland Minerals and Energy Ltd ('GMEL' or 'the Company'), 100% owner and operator of the Kvanefjeld Project in Greenland, is pleased to update on an active field season. Kvanefjeld is underpinned by the largest code-compliant resource (JORC or CIM) of rare earth elements that are critical to the clean, green and smart revolution, which is rapidly gaining momentum.

The number of countries that are looking to legislate a phase-out of internal combustion engine cars continues to grow, with China the latest to announce that efforts are underway to establish a phase-out timeline. China joins India, France, UK and Norway in moving to set timelines for their respective national transition to electric vehicles (EV's) ranging from 2020 to 2040.

Of emerging rare earth operations, Kvanefjeld is forecast to be the largest producer of key rare earths including neodymium (Nd), praseodymium (Pr) and dysprosium (Dy) that are essential to high powered permanent magnets used in the electric drive motors of EV's. Demand for these elements is being further boosted by strong growth in off-shore wind power where RE magnets are also used.

Prices of Nd and Pr are up 80% this year on the back of strong demand and tightening supply. Global government policies to transition to EV's and to significantly expand off-shore wind power capacity will underwrite continued demand growth for Nd, Pr, and Dy.

---

**PERTH:** Unit 6, 100 Railway Road, Subiaco Western Australia 6008 **POSTAL:** PO Box 2006, Subiaco WA 6904

Telephone: +61 8 9382 2322 Facsimile: +61 8 9382 2788

**GREENLAND:** PO Box 156, Narsaq, Greenland 3921

**WEB:** [www.ggg.gl](http://www.ggg.gl) **EMAIL:** [info@ggg.gl](mailto:info@ggg.gl) **ABN:** 85 118 463 004

GME is working closely with strategic partner and major shareholder Shenghe Resources Holding Co Ltd (Shenghe) to optimise the Kvanefjeld Project and ensure it is aligned with downstream processing, as a precursor to project development. Shenghe is a leading rare earth company listed on the Shanghai stock exchange, and is looking to continue to grow its international customer base.

## 2017 Field Based Activities

Through the latter half of the summer months, field based activities and stakeholder meetings in the project area have been undertaken to support impact assessments for the Kvanefjeld Project. Following detailed reviews of mining license application documents in 2016, the Company is working to finalise impact assessments through 2017. The summer period has been utilised to sample additional material to supplement existing environmental datasets.



**Figure 1.** August was a busy month onsite in southern Greenland, with sampling and monitoring programs completed to supplement EIA datasets, meetings with a cross section of stakeholders, and geological work with Shenghe. Pictured from left Ib Laursen (GME), Liz Wall (Shared Resources), Pavia Rhodes (GME), Zhao Mingwu (Shenghe), Benjamin Kielsen (GME), Carl Barnabassen (GME assistant).

### **Shared Resources – Greenland Visit**

Expert consultancy Shared Resources is providing guidance and support for GMEL in finalising the impact assessments and aligning them with international standards. As part of this process Shared Resources founder Liz Wall has been in Narsaq working closely with Company personnel to garner a deeper understanding of the project area, and meeting with a cross-section of stakeholders. Ms Wall has additionally spent time in Nuuk, Greenland's capital, to meet with representatives of government departments that manage the regulation of resource industry activities.

Ms Wall brings extensive international experience and was a Social and Environmental Development Specialist working with mining projects with the International Finance Corporation (IFC) and a Regional Development Manager and Health, Safety and Environment Policy Advisor for Rio Tinto in a number of locations around the world.

### **DCE, EAMRA – Narsaq, Project Area Visit**

In late August, representatives from the Greenland's Environmental Agency for Mineral Resource Assessment (EAMRA) and Danish Centre for Environment (DCE) visited Narsaq and the broader Kvanefjeld Project area to conduct field-based aspects of the EIA review process. A community meeting was attended by the two groups to provide further updates and feedback to attendees. The visit allowed for inspections of Company dust monitoring stations, weather stations and stream water stations. The opportunity is another important step in closing out feedback loops, and to conduct ongoing baseline data checks.

Independent environmental consultants Orbicon have been onsite to check on the calibration and monitoring of measuring stations positioned around the project area. These continue to record baseline data which provides continuous information on the existing environment before mining proceeds. Orbicon and the technical specialists from the DCE visited the water monitoring sites to observe the methodology and rigour behind extensive datasets generated over many years by GMEL.

### **Shenghe – Geological Studies/Project Familiarisation**

Through August to early September Shenghe/IMUMR geologist Zhao Mingwu has been onsite to gain greater familiarity with the Kvanefjeld project area, and the geology of the region. The extensive multi-element mineral deposits (REE, U, Zn) feature many unique rocks and rare earth minerals. Mr Zhao, supported by GMEL field team was able to visit and study the three deposits defined to date including Kvanefjeld, Sørensen and Zone 3. The visit provided an excellent opportunity for Shenghe to continue to build greater familiarity with the broader project area.

-ENDS-

## **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). A pre-feasibility study was finalised in 2012, and a comprehensive feasibility study was completed in May, 2015. The studies demonstrate the potential for a large-scale, long-life, cost-competitive, multi-element mining operation. An exploitation (mining) license application for the initial development strategy was completed in 2015.

In 2017, GMEL is focussed on working closely with Greenland's regulatory bodies on the processing of the mining license application, and maintaining regular stakeholder updates. The Company will be undertaking technical work programs with Shenghe Resources Holding Co Ltd that aim to further enhance the Kvanefjeld Project, and ensure it is aligned with downstream processing. In addition, the Company will look to further value add initiatives including the recovery of additional by-products from the leach solution.

**Dr John Mair**  
**Managing Director**  
**+61 8 9382 2322**

**Christian Olesen**  
**Rostra Communication**  
**+45 3336 0429**

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

---

### **Competent Person Statement – Mineral Resources and Ore Reserves**

*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 and Energy 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 and Energy Ltd and Mr Scott McEwing of SRK Consulting (Australasia) Pty Ltd.*

*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.