GREENLAND
MINERALS AND ENERGY LTD

Company Announcement, September 17th, 2015

Kvanefjeld Project Optimisation:

Reduced Civil Earth Works to Save $118M in Capital Costs

- **Optimisation steps are in progress, and will lead to reductions in capital cost**
- **Modifications to the project layout reduce civil earth works significantly**
- **The reduction in civil earth works leads to a saving of US$118M; equivalent to a 14% reduction to the Total Plant Direct Cost**
- **Other areas of optimisation focus include product recoveries, and third party infrastructure financing strategy**
- **The Company continues to optimise the project as it progresses Kvanefjeld into the permitting phase**

Greenland Minerals and Energy Limited ('GMEL' or 'the Company') completed a Feasibility Study in May, 2015, which demonstrated that the Kvanefjeld Project can be developed as a long-life, low-cost producer of critical rare earth elements. Key advantages of Kvanefjeld include the simple and efficient processing route, and by-product revenue streams (uranium, lanthanum, cerium, zinc, and fluorspar).

Since completing the Feasibility Study, the Company has initiated a series of optimisation studies that are expected to lead to significant capital cost reductions. The first point of focus has been on the project lay-out.

Feasibility Study - Civil Cost Optimisation

The Kvanefjeld Feasibility Study was based on the use of two separate process plant sites, one for the Concentrator, and one for the Refinery, with the run-of-mine (ROM) ore stockpile located within the footprint of the Concentrator site (Figure 1.). A detailed review of potential plant layouts has subsequently taken into consideration the impact of plant modularisation, the impact of potential recovery improvements and the requirement to provide flexibility for future capacity expansions.

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The Company has established that by moving the ROM ore stockpile from the Concentrator site to the mining area, by reconfiguring the concentrator and refinery plants and by removing common equipment and facilities, the concentrator and refinery plants can be accommodated within the originally identified concentrator site (Figure 2).

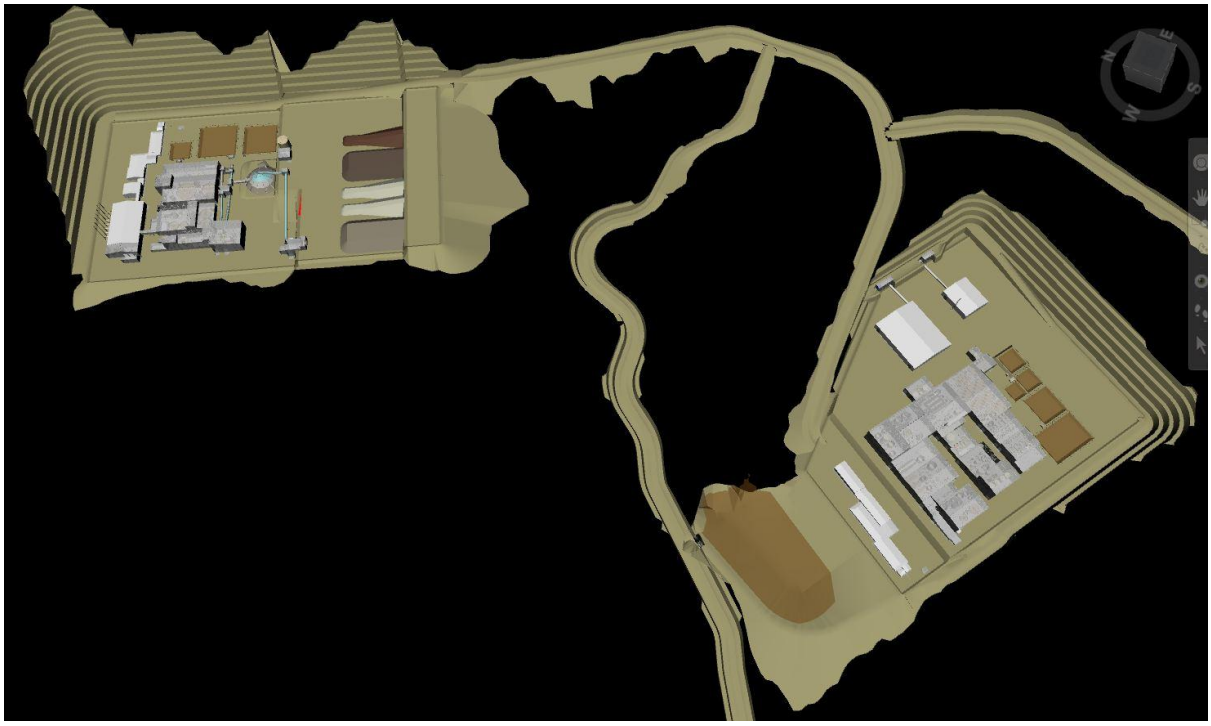

Figure 1. The plant layout considered in the Feasibility Study. Separate sites were planned for the concentrator (left) and refinery (right). In this scenario the ROM stockpiles would be located within the footprint of the concentrator site.

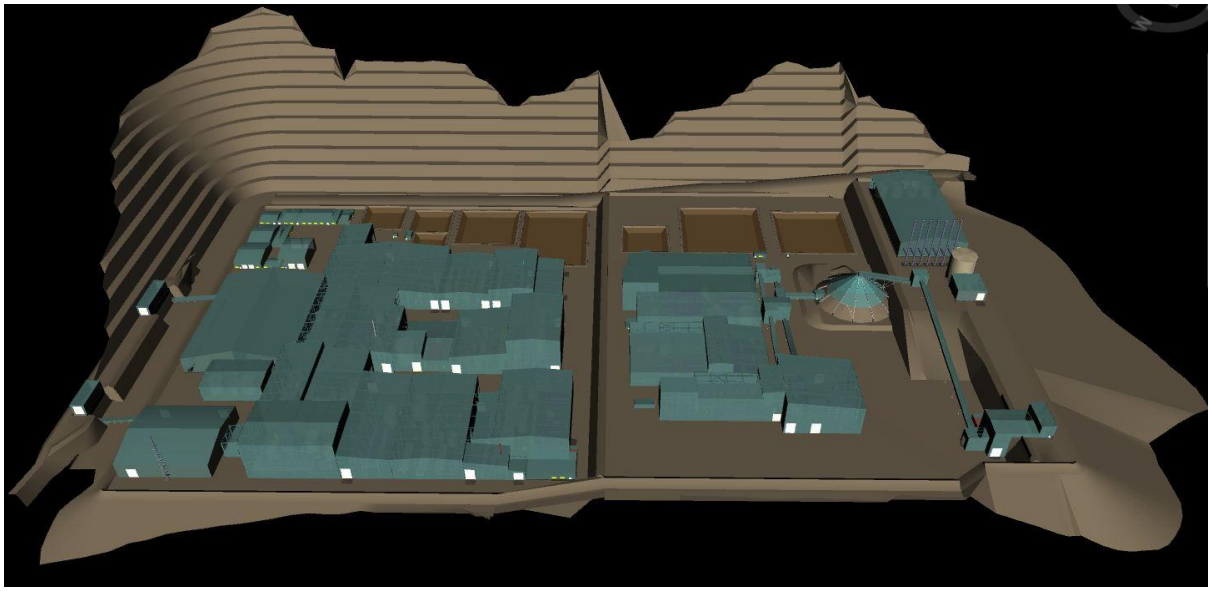

Figure 2. Optimised plant layout with both the Concentrator and Refinery located in a single site. The ROM stockpiles have been removed from the site, and relocated to the mining area where they can be readily accommodated.

The reduction in capital cost resulting from site consolidation is **US$118.3M**. This cost saving is driven by reduced blasting, excavation and hauling. There are also reduced pipeline requirements, which together with the sharing of facilities, also contribute to the reduction in capital cost. The cost saving of approximately US$118M is equivalent to a 14% of the Total Plant Direct Cost.

In addition, consolidating the Refinery and Concentrator in a single site produces operating cost savings from operational synergies and sharing facilities. The total operating cost saving resulting from combining the sites is estimated to be **US$2.12M per year.**

Further Optimisation Studies

GMEL is planning to add further value to the project through ongoing optimisation studies over the coming months. These optimisation studies will incorporate the latest developments from metallurgical test work, including recent pilot plant operations. The pilot plant operation of the Refinery circuit is currently being concluded in Finland, as part of the EURARE collaboration.

The optimisation work is also targeting operating cost reductions from greater work flow effectiveness, which will further entrench Kvanefjeld as a low cost source of rare earths.

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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 developing high-quality mineral projects in Greenland. The Company's flagship project is the Kvanefjeld multi-element deposit (rare earth elements, uranium, zinc), that stands to be the world's premier specialty metals project. 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. Through 2015, GMEL is focussed on completing a mining license application in order to commence project permitting, in parallel to advancing commercial discussions with development partners. 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 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 12th, 2015. The ore reserve estimate was released in a Company Announcement on June 3rd, 2015. There have been no material changes to the resource estimate, or ore reserve since the release of these announcement.