

## September 2020 Quarterly Report

Tuesday 27<sup>th</sup> October 2020

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### Highlights:

- **Major Kvanefjeld Project milestone**
  - Independent scientific review of Environmental Impact Assessment (EIA) complete
  - Project fulfills Greenland Guidelines, meets international standards and principles of 'Best Available Technology' and 'Best Environmental Practice'
  - Translations of EIA to Greenlandic and Danish close to completion
  - All components of a formal exploitation (mining) license application will then be complete, such that statutory processes can be scheduled to conclude permitting
  - Preparation for the public consultation phase underway in consultation with Greenland's Ministry for Mineral Resources and Environmental Agency for Mineral Resources Activities, schedule to be set when language/grammar checks of translated documents finalised
  
- **Ongoing test work continues to increase overall rare earth recoveries**
  - Locked cycle flotation test work producing rare earth mineral concentrate of >23% rare earth oxide (REO)
  - Rare earth recoveries in mineral concentrate increased to 85% (previously 80%): Light REO recovery 87%, heavy REO recovery 68%
  - **Increased recoveries will increase Project output and profitability**
  
- **European engagement increasing with strong EU focus on rare earth supply**
  - Criticality of rare earth supply to European industry emphasized at launch of European Raw Materials Alliance in September
  - Company presented to Global Rare Earth Industry Association (Brussels based), and European Rare Earth Resources (formerly EURARE)
  - Initial engagement of the European Rare Materials Alliance

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## September 2020 Quarterly Activities

Greenland Minerals Ltd ('GML' or 'the Company') is pleased to report on Q3, 2020 activities, and progress in the development of the Kvanefjeld rare earth project. The Quarter saw a major project milestone achieved with the conclusion of independent technical reviews of the Environmental Impact Assessment. All components of a mining license application have now been completed with the Social Impact Assessment and Maritime Safety study having previously been accepted. The Project will move into the next phase which is a statutory public consultation phase. The Company will update on the timing and duration in the near-term when language/grammar checks have been completed. Major progress in permitting comes at an important time with the outlook for rare earth demand continuing to strengthen.

Technical work has been ongoing through 2020, with a focus on advanced beneficiation (flotation) test work for the concentrator circuit and impurity removal in the refinery circuit. Locked cycle test work has delivered exceptional results, demonstrating excellent efficiency with high rare earth recoveries. The latest test work represents a significantly closer representation of the commercial flowsheet.

In September, the formation of the European Raw Materials Alliance was formalised. The alliance brings together more than 150 industrial and non-industrial members with the common objective of securing the supply of sustainable raw and advanced materials for industrial ecosystems in order to build Europe's resilience and competitiveness. A major focus will be on rare earths and permanent magnet value chains; an area that is key to most European Union industrial ecosystems. Owing to the rapidly rising demand driven by electric vehicles, energy storage and wind turbines (amongst other applications), the alliance highlights that rare earth demand could increase 10-fold by 2050.

GML's European engagement continued through Q3, with presentations to a number of forums. Executive General Manager Jørn Skov Nielsen presented an update to the Brussels-based Global Rare Earth Industry Association, and a technical update was provided to the European Rare Earth Resources group (formerly EURARE association that has provided past support for Kvanefjeld pilot plant operations).

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. Kvanefjeld offers a new, simpler path to rare earth production than traditional refractory sources.

The recovery of a series of by-products during the production of a rare earth intermediate product rich in critical magnet rare earths including **neodymium**, **praseodymium**, **terbium** and **dysprosium**, will ensure low rare earth production costs.

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.

Greenland Minerals Ltd has an internationally diverse shareholder base. The largest shareholder (10.5%) is Shenghe Resources Holding Co Ltd (Shenghe), a leading international rare earth company that supplies

end-user industries globally with high purity rare earth metals and oxides. Shenghe have also played a key role through technical proficiency in the successful restart of the Mountain Pass rare earth mine in the United States. Shenghe bring full rare earth value chain proficiency to the Kvanefjeld Project.

## **Kvanefjeld Environmental Impact Assessment Accepted**

In September Greenland's Environmental Agency for Mineral Resource Activities (EAMRA) advised the Company that the independent scientific review of the Kvanefjeld Environmental Impact Assessment (EIA) and supporting studies had concluded, and the EIA has been assessed to meet the requirements of the EIA Guidelines for public consultation.

Fulfilment of the Guidelines means that all aspects of the Kvanefjeld Project are based on international environmental standards and the principles of 'Best Available Technology' and 'Best Environmental Practice'. Independent scientific reviews of the Kvanefjeld EIA were conducted by the Danish Centre for Environment with assistance from the Greenland Institute of Natural Resources.

In their assessment, EAMRA said that they were very satisfied with how the review-revision process has been conducted with a high degree of mutual flexibility and cooperation. With the EIA technical review-revision phase complete, the Company looks forward to updating on the timing of a public consultation phase, and subsequent steps to complete project permitting.

Major contributing independent specialists for the technical aspects of the Kvanefjeld EIA include Arcadis, Danish Hydraulic Institute, Klohn Crippen Burger Ltd, Environmental Resources Management, Orbicon A/S, Danish Technical University, Wood Group, GHD International, and SRK Consulting. Specialist consultant Shared Resources provided important guidance to the EIA report.

## **Next Steps to a Mining License**

Greenlandic and Danish versions of the EIA report are required for the EIA acceptance to be formalized. Translations are on schedule to be completed in October. The translated reports will then undergo a check for language quality by EAMRA (EIA report) and the Ministry of Mineral Resources (SIA report); a process that is estimated to take approximately 1 week. Other project reporting that relates to licensing include the Social Impact Assessment (SIA) and Maritime Safety Study have been accepted and translated to Greenlandic and Danish.

A statutory public consultation phase will then be scheduled with the duration being a minimum of 8 weeks. Questions that arise during the public consultation phase are addressed in the form of a white paper. The publication of the white paper concludes the criteria for an exploitation (mining) license. The Company anticipates that the white paper should be completed within an 8 week period, following the public consultation.

The Company's in-country team has meanwhile been updating a broad range of stakeholders on the significance of the Kvanefjeld Project to future rare earth supply, and the opportunities and benefits for Greenland.

## **Advanced Flotation Test Work Delivers Exceptional Performance**

Locked cycle flotation test work has been underway at the BTMR laboratories in China through 2020, overseen by rare earth specialists Shenghe Resources Holding Co Ltd.

Locked cycle test work closely represents the performance of a commercial circuit and builds on extensive single batch flotation and initial locked cycle tests (Company announcement January 10, 2019). The results were validated with check assays undertaken at SGS Laboratories in Perth, Australia and an independent Chinese assay laboratory. The process development has progressed to the extent where conditions comparable to that of the commercial plant are to be tested.

The latest locked cycle test work completed multiple cycles of tests using the planned commercial circuit. Critically the test included recycling of process water to determine the impact of residual reagents in solution on flotation performance.

**This is a significantly closer representation of the commercial flowsheet than previous test work and further de-risks the process.**

The optimised test utilised 8 full flowsheet cycles to ensure a steady state was achieved. Samples were taken over the whole flowsheet during the 8<sup>th</sup> cycle to provide a ‘snapshot’ of the circuit performance. The results show that 87% of the light rare earths and 68% of the heavy rare earths were amassed into a mineral concentrate which assays 23.3% rare earth oxide.

### **Key Parameters of Locked Cycle Flotation Circuit:**

- **Rare earth feed grade = 1.5% rare earth oxide (REO)**
- **Flotation concentrate grade = 23.3% REO**
- **% Mass reporting to concentrate = 5.4%**
- **Light REO recovery = 87%**
- **Heavy REO recovery = 68%**
- **Total REO recovery = 85% (previously 80%)**

The results confirm the outstanding performance of the optimised flotation circuit, with the ability to concentrate the rare earths into a much smaller mass than that of the original ore, allowing for a small refinery circuit for hydrometallurgical treatment. The unique rare earth minerals can be effectively processed in a single stage atmospheric acid leach circuit in which all impurities can be managed, allowing for the production and export of a clean intermediate rare earth product.

Continued development of the flotation circuit has also involved further investigation of the removal of excess fluoride ions in the process water. The fluoride comes from the soluble mineral villiaumite which

is present in the ore. Configuration changes to the flotation circuit allow for greater fluoride removal prior to the main rare earth flotation stage. The fluoride will be recovered as fluorspar (metspar). Significantly, this results in lower flotation reagent consumption, and a substantial reduction of fluoride in tailings which mitigates environmental impacts and benefits environmental management. Further enhancements in fluoride removal are expected with ongoing process development.

## **European Industry Engagement Building Momentum**

During Q3 GML presented to a number of European organisations to update on the Kvanefjeld Project. Europe is set to be an important growing demand centre for rare earths, and there is an increasing level of interest and awareness in the security of supply. In September, the European Raw Materials Alliance (ERMA) was launched by the European Commission. The new alliance was established in recognition of the critical importance of raw materials to the EU's security, sustainability and industrial leadership. If Europe is to deliver a Green Deal, a digital transition and remain a leader in future technologies, it faces a significant increase in demand for critical raw materials.

*'The European Raw Materials Alliance will identify barriers, opportunities and investment cases to build capacity at all stages of the raw materials value chain, from mining to waste recovery. In a first phase, the alliance focuses on the most pressing need, which is to increase EU resilience in the rare earths and permanent magnets value chains, as these are vital to most EU industrial ecosystems. In addition to rapidly rising demand driven by electric vehicles and energy storage, demand for rare earths critical for products like wind turbines could increase ten-fold by 2050' (ERMA website).*

Executive General Manager Jørn Skov Nielsen presented an overview of the Kvanefjeld Project to the Brussel's based Global Rare Earth Industry Association, and Metallurgy Manager Damien Krebs gave a key note presentation to a forum organised by the European Rare Earth Resources association (formerly EURARE) that provided past support for pilot plant operations on the Kvanefjeld Project. The Company continues to engage a cross section of European industry groups.

The Kvanefjeld Project is ideally placed to provide stable, long-term supply of all critical rare earths to European industry along with end-users globally and has GML well positioned to develop collaborative relationships with European industry groups.

The longer-term picture for rare earths remains extremely robust. ADAMAS Intelligence is forecasting that global annual demand for magnet rare earth oxides (Nd, Pr, Dy, Tb) will increase by 150% through to 2030. Meeting this demand will require current global production to double.

When this is considered together with increasing production costs in China, it is clear that there will be considerable upward pressure on prices over time. This outlook creates an optimal development window for the Kvanefjeld Project given its advanced status, favourable production profile across all key magnet RE's, and competitive cost structure.

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

GML has been operating in Greenland, with a focus on the Kvanefjeld rare earth project since 2007. The project has been systematically investigated, and today, Kvanefjeld is one of the world's most important emerging rare earth projects, and is well positioned to see Greenland become a globally significant supplier of materials that are key to an energy efficient, and environmentally sustainable future.

The Kvanefjeld Project is founded on a unique geological environment in southern Greenland, that contains vast mineral resources enriched in critical rare metals. At a planned processing rate of 3 million tonnes/year, Kvanefjeld will be a globally significant producer of light RE magnet metals neodymium and praseodymium (combined Nd-Pr oxide of 5,690t/a) as well as being a significant producer of the strategic heavy RE's terbium and dysprosium (44t/a and 270t/a respectively). Rare earth production costs will be low owing to favourable metallurgy, coupled with additional revenue streams generated through the by-production of uranium, zinc and fluorspar (metspar).

Kvanefjeld has an initial mine life of 37 years, based on a 108 million tonne ore reserve (JORC 2012), however, this represents only 10% of the broader resource base. There is clear scope to expand production and extend the project mine life.

The Kvanefjeld Project has been systematically put together drawing on a collective of specialist expertise from around the world. This includes leading technical and metallurgical input from major shareholder (10.5%) and leading international rare earth company Shenghe Resources Holding Co. Extensive stakeholder engagement has shaped the development strategy. Studies into environmental and social impacts have been undertaken by independent special consultancies in close communication with Greenland regulatory bodies.

Today, Kvanefjeld is ideally placed to be developed to meet growing rare earth demand. Significantly, Kvanefjeld would be Greenland's first world-class mining operation and the flagship of Greenland's emerging minerals industry.

**-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 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. Shenghe holds Chinese production quotas for the mining and separation/refining of rare earths and supplies high-purity rare earth oxides and metals to end users globally.

Shenghe is focussed in working collaboratively to strengthen international rare earth supply networks, and has played a key role in the successful technical restart of the Mountain Pass rare earth mine in the US.

## **About the Kvanefjeld Project**

The Kvanefjeld Project 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. Extensive resources of other rare minerals enriched in critical elements also occur within the license area.

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 rare earths. 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. Uranium and zinc will be recovered as by-products at low incremental costs.

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.



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 electric cars, renewable energy sources such as wind turbine, along with many common place 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.

## **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 conducted 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.

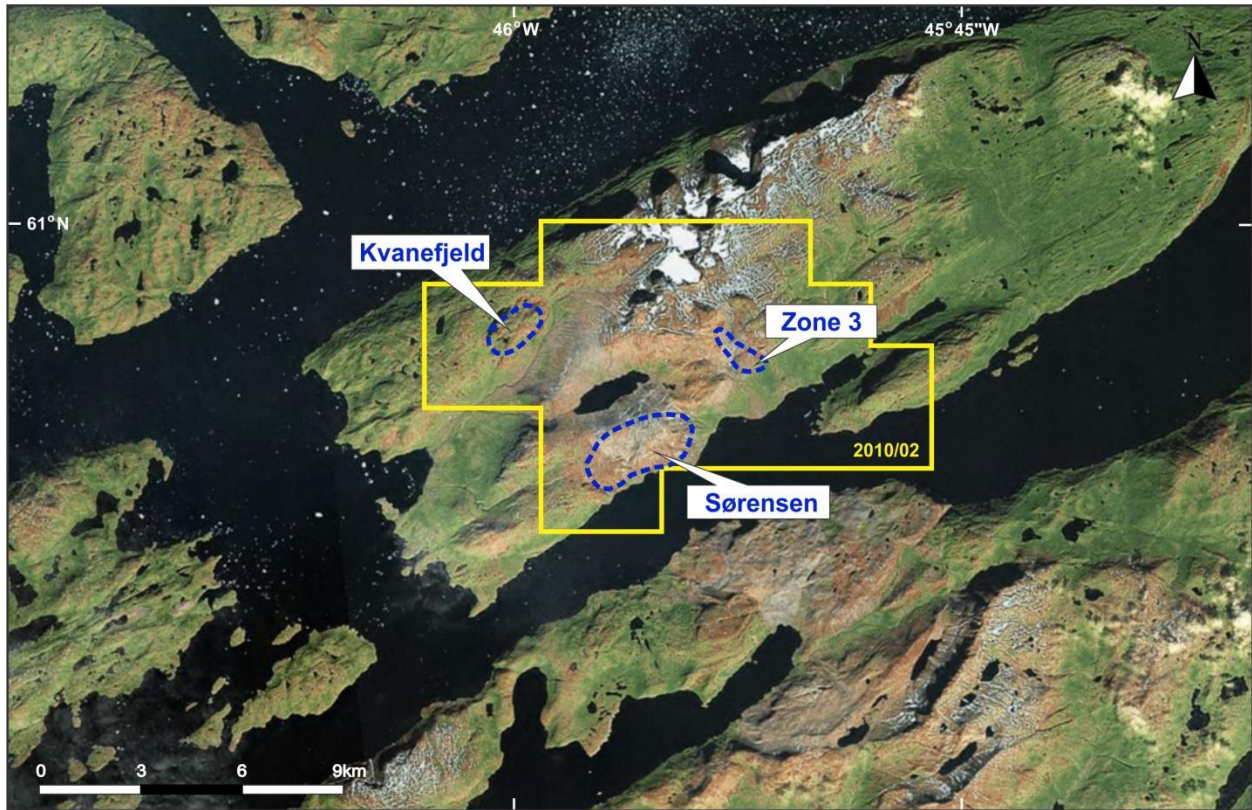
### ***Location***

The exploration lease covers an area of 80km<sup>2</sup> 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.

Exploration License	Location	Ownership
EL 2010/02	Southern Greenland	Held by Greenland Minerals A/S, a fully owned subsidiary of GML.
<b>Capital Structure – As at 30 September 2020</b>		
Total Ordinary shares		1,197,376,730
Unquoted options exercisable at \$0.15 on or before 31 March 2021		3,680,800
Employee performance rights (subject to vesting hurdles – refer announcement 8 Jun 2019)		6,525,000

Please visit the company's website at [www.ggg.gl](http://www.ggg.gl) where recent news articles, commentary, and company reports can be viewed.

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

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

Cut-off (U <sub>3</sub> O <sub>8</sub> ppm) <sup>1</sup>	Classification	Multi-Element Resources Classification, Tonnage and Grade								Contained Metal				
		M tonnes Mt	TREO <sup>2</sup> ppm	U <sub>3</sub> O <sub>8</sub> ppm	LREO ppm	HREO ppm	REO ppm	Y <sub>2</sub> O <sub>3</sub> ppm	Zn ppm	TREO Mt	HREO Mt	Y <sub>2</sub> O <sub>3</sub> Mt	U <sub>3</sub> O <sub>8</sub> M lbs	Zn Mt
<b>Sørensen - March 2012</b>														
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
<b>Zone 3 - May 2012</b>														
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
<b>All Deposits – Grand Total</b>														
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>	<b>1010</b>	<b>11,000</b>	<b>266</b>	<b>9,700</b>	<b>399</b>	<b>10,100</b>	<b>893</b>	<b>2,397</b>	<b>11.14</b>	<b>0.40</b>	<b>0.90</b>	<b>592.84</b>	<b>2.42</b>

<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.

<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.

### Kvanefjeld Ore Reserves Estimate – April 2015

Class	Inventory (Mt)	TREO (ppm)	LREO (ppm)	HREO (ppm)	Y <sub>2</sub> O <sub>3</sub> (ppm)	U <sub>3</sub> O <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
<b>Total</b>	<b>108</b>	<b>14,300</b>	<b>12,700</b>	<b>495</b>	<b>1,118</b>	<b>362</b>	<b>2,600</b>

## **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. 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 demonstrated the unique and highly advantageous strengths of the Kvanefjeld Project and outlined the potential for Kvanefjeld to be developed 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 was reviewed by the Greenland Government through 2016-19 and was updated in 2019.

In 2017-18, GML undertook technical work programs with Shenghe Resources Holding Co Ltd that improved the metallurgical performance and simplified the development strategy and infrastructure footprint in Greenland, with optimised Feasibility Study outcomes announced in mid-2019. This defined a significantly enhanced project cost-structure and a direct alignment 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.

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## **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