

June 2021 Quarterly Report

Wednesday 28 July 2021

Key Developments

- **New coalition government in Greenland - Inuit Ataqatigiit (IA) and Naleraq parties**
 - **Public consultation phase for Kvanefjeld extended to 13 September 2021**
 - **Second round of public meetings scheduled for late August, to be attended by Ministers**
 - **Consultation 'white paper' responses progressing to expedite quick turn around**
 - **GGG continued environmental baseline studies in Kvanefjeld Project area.**
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June 2021 Quarterly Activities

Greenland Minerals Ltd ('GGG' or 'the Company') is focused on the development of the Kvanefjeld Rare Earth Project in southern Greenland, which it has systematically advanced since 2008. The Kvanefjeld Project, 100% owned by GGG, 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.

Kvanefjeld has the potential to be developed as a large-scale, low-cost producer of critical magnet rare earths including **neodymium, praseodymium, terbium and dysprosium**.

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.

Through Q2 2021, the Company has focused on activities relating to the statutory public consultation phase for the Kvanefjeld Project. The consultation period commenced in late December 2020 after the Greenland Government and its independent advisors formally accepted the Project's environmental and social impact assessments as meeting the Greenland Guidelines for public consultation that draw on international best-practice; a major milestone in the permitting process. The impact assessments had been through an in-depth five-year revision process.

New Government in Greenland

In April 2021, a new coalition government formed in Greenland with the Inuit Ataqatigiit (IA) and Naleraq parties, following an election called in February 2021 during the public consultation period for the Kvanefjeld project. The new Government's leadership has publicly stated a political intention to oppose development of GGG's Kvanefjeld rare earth project. However, the government has also confirmed that the public consultation, a government-managed process will continue, along with subsequent case work. As a result, the consultation period has been further extended until 13 September 2021.

The first round of public meetings, held in south Greenland in February 2021, were attended by representatives of Greenland's Ministry for Mineral Resource, the Environmental Agency for Mineral Resource Activities and the Danish Centre for Environment, but did not have political representation.

The next public meetings are planned to be held in weeks 34 and 35 (late August), and will be held in Igaliku, Nanortalik, Narsaq, Narsarsuaq, Qaqortoq and Qassiarsuk in southern Greenland. These meetings will have political representation.

Kvanefjeld Public Consultation Status

On 17 December 2020, the Greenland Government approved the commencement of the statutory public consultation of the Environmental Impact Assessment (EIA) and the Social Impact Assessment (SIA) for the Kvanefjeld Project, and immediately initiated the consultation period.

The Greenlandic Minerals Act stipulates that it is a requirement that the EIA and SIA reports are subject to a public consultation period for a minimum of 8 weeks. The public consultation started on 18 December 2020, initially for 12 weeks, with Greenlandic, Danish, and English versions of the EIA and the SIA made available on the Greenland Government's public hearing portal. It was then extended to 1 June 2021, and following the election, further extended to 13 September 2021, to accommodate another round of public meetings.

Statutory consultations are a government managed process; however, once the election was called, the government was in caretaker mode until the formalisation of a new government after the election. It is the role of the government and its appointed independent advisors to decide when a project meets the Guidelines for public consultation, the duration of the consultation period, and to provide explanation as to how and why the impacts assessments are deemed to meet the guidelines after an extensive review-revision process.

Public Consultation White Paper

Following completion of the consultation period, the Company and the Government must each respond to issues raised during the process. These responses are then collated in a document referred to as the White Paper.

To date, issues raised in public meetings held in communities in southern Greenland during February 2021 have been directly lodged via the Government's online portal for the project consultation. Additional questions are expected to arise from the second round of public meetings in August.

To ensure that the process proceeds as efficiently as possible, the Company has commenced preparation of detailed responses to each of these issues for the White Paper with support from key consultants. Responses are being prepared primarily by reference to material already contained in the impact assessments themselves or in the consultant's reports prepared to support the assessments (also available).

Environmental Baseline Studies Continue

Through the Greenland summer, the Company has completed additional environmental baseline studies in the broader project area to further increase its understanding of chemical dispersion by natural processes. This is designed to assist with stakeholder understanding of the Kvanefjeld Project.

GGG had intended to conduct an extensive field program this year that was carefully planned with input from Greenland's independent scientific advisors, with approvals in place for the planned drilling and engineering studies from Greenland's Mining License and Safety Authority. The drilling was planned to generate data for the next steps in permitting beyond an exploitation licence (operations and closure approvals), as well as geotechnical data for engineering studies. With the change in political sentiment and resulting uncertainty, GGG postponed the drilling program.

Draft Legislation in Consultation Concerning Uranium

The Greenland Government has put forward draft legislation for consultation to ban the exploration and exploitation of uranium, which would reverse some of the steps implemented by previous governments that aimed to establish a critical minerals industry in Greenland. Critical minerals are those classed as being important to future technologies and in particular 'green industries' (renewable energy, electric vehicles) with projected future supply shortfalls (i.e., rare earths). It is common for such projects to contain elevated concentrations of the naturally occurring radioactive elements uranium and thorium. As the proposed Act is currently in draft form and in consultation, the Company is not able to advise how such legislation could potentially affect the Kvanefjeld development proposal (as guided by the Terms of Reference), nor how it would impact other mining projects in Greenland, or the exploration for a variety of mineral deposit types.

Detailed radiological studies were conducted on the Kvanefjeld Project as part of the EIA, led by independent specialist consultancy Arcadis. The Arcadis report, reviewed in detail by the Danish Centre for Environment, concluded *"Overall, the Kvanefjeld Project is expected to release only small amounts of additional radioactivity to the environment and is not expected to result in an adverse effect, or significant*

harm, to wildlife or people that live or visit the area. It is expected that the radiation exposure will not be significantly different than current conditions (background)."

Background to the Licensing Process for Kvanefjeld

GGG operates in accordance with Greenland's Minerals Act. Acceptance of a mining licence application comes after the Environmental and Social Impact Assessments were accepted as meeting the Greenland Guidelines for public consultation. With respect to the EIA, 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 (DCE) with assistance from the Greenland Institute of Natural Resources (GINR). In a comment published during the consultation period, the DCE and GINR concluded *'with a high probability [the Kvanefjeld Project] can be completed without further significant adverse effects than the ones described in the EIA report.'* Impacts are presented and investigated thoroughly in the EIA report and supporting technical studies, along with mitigation strategies.

The project scope for Kvanefjeld was established in 2012-2013 following extensive stakeholder engagement at community and government level. Project development options were presented including the location of key infrastructure items, and how much value-add processing would take place in Greenland. Scenario 1 (concentrator only) involved the production of a rare earth mineral concentrate, with the by-production of zinc concentrate and fluorspar. Scenario 2 (concentrator and refinery circuit) involved the additional step of chemical processing of the rare earth mineral concentrate in Greenland to produce a higher-value intermediate rare earth product (carbonate or chloride).

The Terms of Reference (ToR) for the Kvanefjeld Project were approved in 2015, following a public consultation process undertaken in 2014. The ToR defined the scope of the impact assessments.

In establishing the ToR, GGG was requested by the government to conduct some chemical processing of rare earth minerals in Greenland for the purpose of adding value and improving labour force capacities (Scenario 2). To create a high-purity intermediate rare earth product, impurities are removed, and in cases be recovered as a by-product, such is the case with uranium for which there is an established market. Considerable work has been undertaken by previous governments to establish the necessary legislative framework to manage the by-production of uranium, in accordance with international best practice, and in consideration of the development of critical metal projects (ASX release 29 September 2016).

Greenland's Role in New Rare Earth Supply Chains

GGG 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 for Greenland to 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 strategically significant heavy RE's terbium and dysprosium (44t/a and 270t/a respectively). Rare earth production costs will be low owing to simple, low strip-ratio mining and favourable metallurgy.

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 based. There is clear scope to be 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. 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.

Authorised for release by the Board of Greenland Minerals Limited.

For further information, contact

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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. GGG 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.

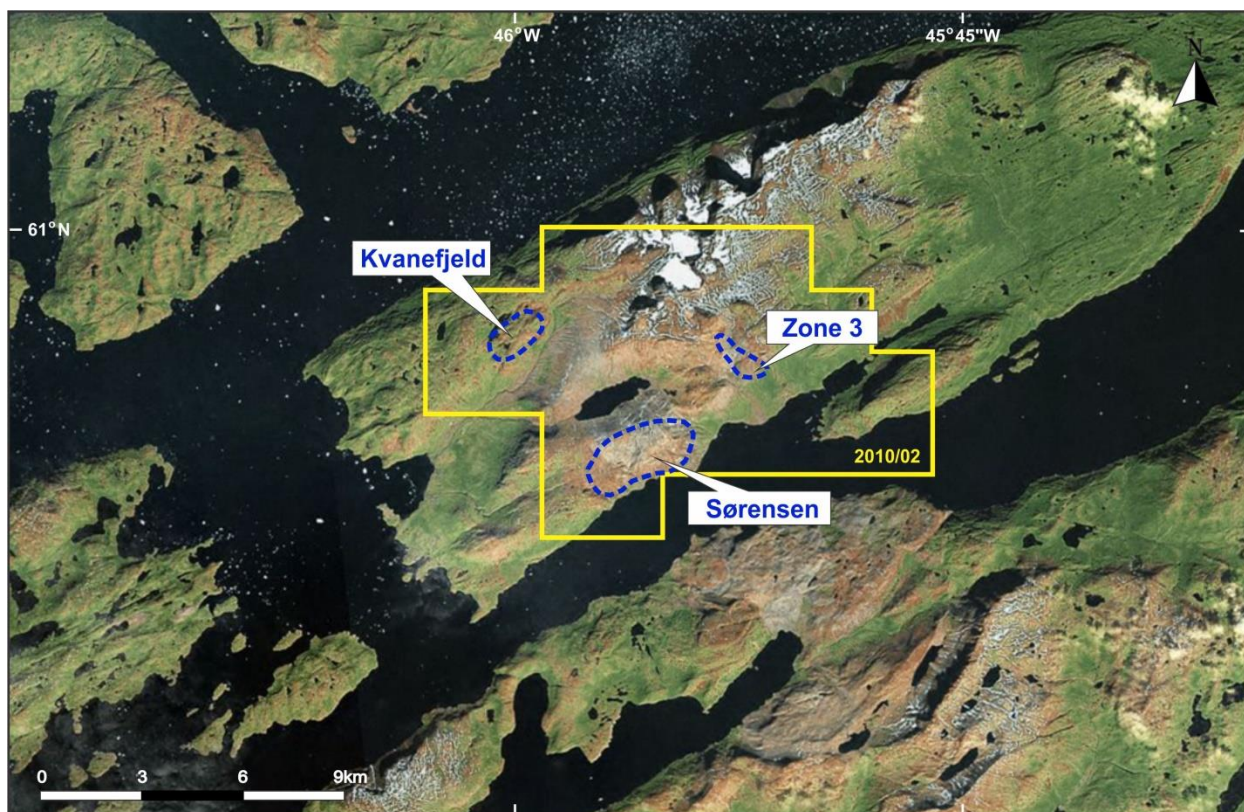
Location

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 GGG'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 GGG.
Capital Structure – As at 30 June 2021		
Total Ordinary shares		1,341,552,346
Unquoted options exercisable at \$0.35 on or before 31 January 2023		6,000,000
Employee performance rights		6,525,000

Listing Rule 5.3.5 disclosure

The amount disclosed in the Appendix 5B for the quarter ended 30 June 2021, at item 6.1 of \$137,000 represents the total of Director salary, fees and superannuation paid during the quarter.

Please visit the company's website at www.ggg.gl where recent news articles, commentary, and company reports can be viewed.

Multi-Element Resources Classification, Tonnage and Grade										Contained Metal				
Cut-off	Classification	M tonnes	TREO ²	U ₃ O ₈	LREO	HREO	REO	Y ₂ O ₃	Zn	TREO	HREO	Y ₂ O ₃	U ₃ O ₈	Zn
(U ₃ O ₈ ppm) ¹		Mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Mt	Mt	Mt	M lbs	Mt
Kvanefjeld - February 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

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

¹There is greater coverage of assays for uranium than other elements owing to historic spectral assays. U₃O₈ has therefore been used to define the cutoff grades to maximise the confidence in the resource calculations.

²Total 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 ₂ O ₃ (ppm)	U ₃ O ₈ (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

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 underwent a rigorous and in-depth review-revision process by the Greenland Government through 2016 – 2020. The updated application was accepted as meeting the Guidelines for Public Consultation, which draws on the principles of international best-practice, in December 2020.

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. 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 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 announcements