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JORC Code Compliance – Consent of Competent Persons

The information in this report that relates to exploration results, geological interpretations, appropriateness of cut-off grades, and reasonable expectation of potential viability of quoted rare earth element, uranium, and zinc resources is based on information compiled by Jeremy Whybrow. Mr Whybrow is a director of the Company and a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr. Whybrow has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Whybrow consents to the reporting of this information in the form and context in which it appears.

The geological model and geostatistical estimation for the Kvanefjeld deposit were prepared by Robin Simpson of SRK Consulting. Mr. Simpson is a Member of the Australian Institute of Geoscientists (AIG), and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Simpson consents to the reporting of information relating to the geological model and geostatistical estimation in the form and context in which it appears.

ASX-listed, Greenland-focussed mineral explorer and developer



Key Asset: Kvanefjeld multi-element project (REEs, uranium, zinc):

- > One of the world's most strategically important mineral projects 100% owned by GMEL
- > Project underpinned by one of world's largest REE-uranium resources with major upside
- > Highly accessible bulk orebodies favourably located in southern Greenland near towns, harbours and airport
- A non-refractory ore type conducive to simple, cost-effective processing with low-technical risk
- > 2012 PFS demonstrates long-life, cost-competitive production of rare earths and uranium
- > Greenland is politically stable and pro-mining; attracting increasing international interest



Drilling at the 242Mt Sørensen Deposit, Kvanefjeld Project, South Greenland



ASX-Listed, Greenland-Focussed Mineral Explorer and Developer



Board	
Non-Executive Chairman	Michael Hutchinson
Managing Director	Roderick McIllree
Executive Director	John Mair
Executive Director	Simon Cato
Non-Executive Director	Jeremy Whybrow
Non-Executive Director	Tony Ho

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567.9M
55.9M*
A\$0.38
A\$0.38 A \$0.24-\$0.54
·
A \$0.24-\$0.54

- 7m performance options \$1.75 exp 2013, 5m options \$0.75 exp Oct 2014, 17.45m performance rights various expiry and price, 0.75m employee options \$0.25 exp 2013
- 25.8m quoted options ex \$0.60

Readily Accessible Location Near Existing Infrastructure



- > Strategically located between North American and European markets at a lower latitude than long established mining regions of Alaska and northern Canada
- > Located adjacent to deep water fjords which run directly out to the North Atlantic Ocean
 - > new port facilities can be built adjacent to project;
 - > short roads required to connect port to the process plant, will be used for all goods movement
 - > potential low-cost power supply from new hydropower facility supplemented by imported heavy fuel oil generators
 - > plentiful plant water supply from local lakes, river systems
- > Town of Narsaq located 10km from Kvanefjeld and is expected to provide both general labour and services to the Project

Asset Location

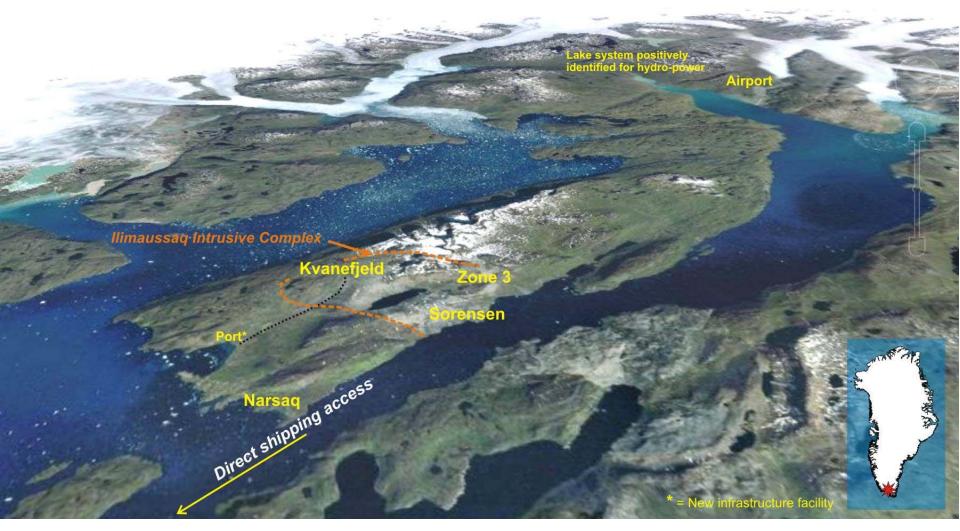






Project Geography – Direct Shipping Access, Airport Nearby





Overview of the Erik Aappalaartup Nunaa Peninsula (or Narsaq Peninsula), south Greenland, view is toward the north The Kvanefjeld project is easily accessed by ship from the North Atlantic, year round The distance from Narsaq town to Narsarsuaq Airport is 45 km

An Extraordinary Resource Base, With Huge Upside

- •The Kvanefjeld project is underpinned by several large-scale, bulk-tonnage resources: Kvanefjeld, Sørensen and Zone 3.
- •The deposits represent the outcropping expressions of a mineralised system that geological evidence indicates is interconnected at depth
- •Mineralisation is hosted by lujavrite, with the mineral **steenstrupine** the dominant host to both uranium and REEs.
- •Low mining costs due to outcropping, bulk tonnage deposits, highest grades near surface (>400ppm U_3O_8 , >1.4% TREO)

Project overall resource inventory:

(JORC-code compliant, Prepared by SRK Consulting)



956 Mt containing **575 Mlbs** U_3O_8 , 10.33 Mt TREO, 2.25 Mt zinc

TREO includes: 0.37 Mt heavy REO, 0.84 Mt yttrium oxide

Kvanefjeld Deposit: Global resource: 619 Mt @ 257ppm U₃O₈, 1.06% TREO, 0.22% zinc

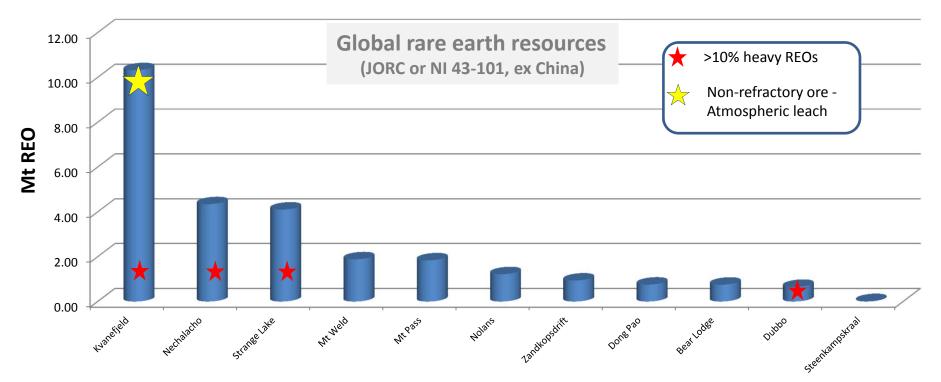
Sørensen Deposit: Global resource: 242 Mt @ 304 ppm U₃O₈, 1.1% TREO, 0.26% zinc

Zone 3 Deposit: Global resource: 95 Mt @ 300 ppm U₃O₈ 1.16% TREO



Peer Comparison Amongst Emerging Rare Earth Producers

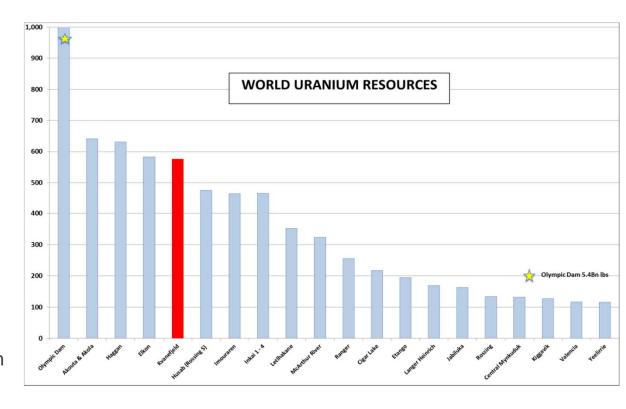
Project	Owner	Asset Location		Asset Location Listing Market Cap (Market Cap (US\$M)	Resources (REO)	Stage	Capacity (REO tpa)	Start Up	
Kvanefjeld	Greenland Minerals & Energy	Greenland	ASX	\$220	10.3Mt	Feasibility	44,000+	2016			
Mountain Pass	Molycorp	CA, USA	NYSE	\$1,100	1.8 Mt	Commissioning	37,000	2012			
Mt Weld	Lynas Corp	WA, Australia	ASX	\$1,200	1.8 Mt	Construction	21,000	2012			
Nechalacho	Avalon Rare Metals	NT, Canada	TSX	\$150	4.35 Mt	Feasibility	8,000	2016+			
Strange Lake	Quest	QC, Canada	TSX-V	\$75	2.4 Mt	Exploration	12,500	2017+			
Zandkopsdrift	Frontier	South Africa	TSX-V	\$70	0.94 Mt	Feasibility		2017			
Nolans	Arafura	NT, Australia	ASX	\$60	1.7 Mt	Feasibility	10,000	2017?			
Dubbo Zirconia	Alkane Resources	NSW, Australia	ASX	\$290	0.5 Mt	Feasibility	2,600	2015			
Steenkamskraal	Great Western Minerals Group	South Africa	TSX-V	\$115	0.03Mt	Construction	2,700	2013?			







- Kvanefjeld Multi-Element Project Global uranium resource of 575 Mlbs U₃O₈
 - 956 M tonnes in indicated and inferred at a 150ppm U₃O₈ cut off
 - <20% of prospective ground in northern Ilimaussaq license evaluated
- No Olympic Dam expansion set to sure up uranium price
- Recent M&A activity with uranium mining companies
 - Uranium endowment valued in range of USD4.2/lb to USD8.5/lb
- Equivalent valuation of the project resource
 - USD2 Billion to USD5 Billion



Built On a Comprehensive Technical Foundation



Subject of 20+ years of state-sponsored R&D (1960's – 1983)

- •Uranium focus, >\$50 M (todays dollars) invested historically
- Extensive metallurgical and infrastructure studies, including hydropower evaluation
- Project successfully piloted at large scale
- Project halted early 1980's when U price slumped



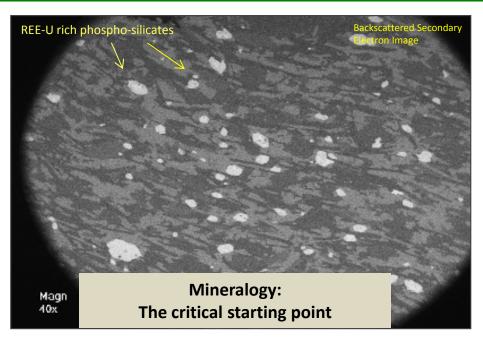
Entrance to historical Kvanefjeld adit

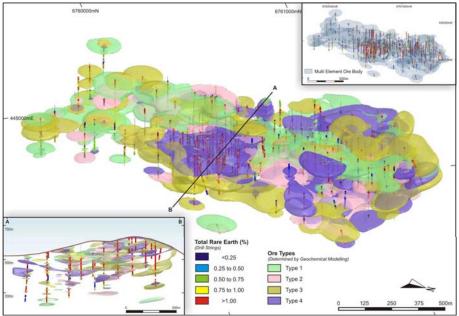
Six years of R&D conducted by GMEL (2007 – present)

- •Multi-element focus REEs, uranium, zinc +, approximately \$75 M (AUD) invested
- Strong in-house project technical team established
- Strong relationships developed in Greenland
- Rigorously developed process flow-sheet that utilises effective beneficiation and atmospheric
 leaching providing both technical and economic advantages
- Project significantly de-risked and moving into the development stage

A Unique and Highly Advantageous Ore Type







- Processing of REE-U ores is driven by mineralogy
- Detailed mineralogical studies map out the value deportment and focus test work
- At Kvanefjeld coarse, discrete value minerals are rich in both REEs and uranium
- These unusual minerals can be effectively isolated from non-value minerals (gangue) utilising froth flotation

- Relationships established between key value minerals and whole-rock geochemistry
- State-of-the-art geostatistical modelling translates mineralogical studies back to the resource scale to effectively domain orebody
- Variability studies help constrain optimal flow-sheet, and guide mine planning
- Allows for predictive approach to metallurgical performance

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A Unique and Highly Advantageous Ore Type



- Kvanefjeld ores contain unique rare earth-uranium bearing minerals (e.g. steenstrupine)
- Minerals are highly advantageous as they can be effectively beneficiated, then leached under atmospheric
 conditions, with no high-temperature acid bake or caustic crack required. This forms the basis of a simple
 processing route that makes for cost-effective, highly-scalable production

Step 1 - Mineral Beneficiation - Flotation

- Ore minerals can be effectively concentrated using flotation, commercially available reagents
- Method has been successfully piloted
- Industry leading upgrade ratio 8.5% mass pull, 10 x REO and 6 x U₃O₈ grades in concentrate
- High upgrade ratio brings **OPTIONALITY** to Kvanefjeld project through the generation of a mineral concentrate of >12% TREO and >2000ppm U₃O₈
- High mineral concentrate grades allow for concentrate to be shipped to a location where a hydrometallurgical plant can be more cost-effectively implemented

Step 2 - Hydrometallurgical Leaching

- Ore minerals yield >90% extraction of U and heavy REEs in sulfuric acid leach, under atmospheric conditions
- No high-temperature acid bake or caustic crack required
- Solvent extraction recovery of U and RE concentrates
- GMEL submitted patent applications over leach methodology
- Can be located in Greenland, or the mineral concentrate can be shipped to a location that is more favourable to establish a hydrometallurgical plant
- Greenland option evaluated in 2012 PFS

Pilot Plant Operation of Concentrator Circuit Complete (November 2012)





Jameson flotation cell – (Xtrata Technologies)
Second beneficiation pilot plant campaign, 1:2000 scale



Continuous pilot plant operation at SGS Laboratories, Perth, produced outstanding results; >300kgs of concentrate produced

Atmospheric Leaching: Scaled Up Test Work Confirms Viability



- REE-U rich mineral concentrates are conducive to a simple atmospheric acid leach – no complex, costly acid bake or caustic cracking required
- A number of continuous leach tests have been performed
- 24 kg of mineral concentrate was leached successfully at SGS Minerals, Perth in August 2012
- Program designed to firm up leach conditions and reagent concentrations
- Highly successful in constraining the leach process for the Kvanefjeld mineral concentrates
- Subsequent test work conducted at ANSTO demonstrates successful control of impurities, high extractions of heavy REEs and uranium in a clean and manageable leach liquor



Pre Feasibility Study Completed - Focus on EIA and SIA



Updated PFS completed, Aug 2012

- The Kvanefjeld prefeasibility study evaluates the operation at capacity of 7.2 Mt/anum
- The project is highly scaleable, and the company is currently conducting studies to determine the optimal start-up capacity

Key highlights:

- Low unit costs across all product streams
- Globally significant heavy rare earth and uranium production
- This de-risks light rare earth marketing and pricing (light REE producers cannot compete)
- Most significant production profile across the critical rare earth elements
- Massive resource base allows for expansions as markets develop
- Continued technical advances drive rare earth production costs down toward those of Chinese producers, owing to uranium credits

PFS – Q2 2012: Key project metrics

Project status	EIA and SIA to be completed Q3 2013
	Feasibility Study underway
Capital Costs:	\$US1.297B + \$75M Owner's costs
	Excludes Infrastructure BOO costs
Start-up:	Construction commencement Q4 2014
·	Production commencement Q4 2016
Mining Method:	Open-Pit
Plant Throughput:	7.2Mtpa
Forecast Cash Costs:	US\$3.08/kg REO inc. U byproduct credit
Mine Life:	>30 Years
Annual production tar	
Uranium	3 Million lbs
Mixed Rare Earth Carbonate	51,882 Tonnes REO Contained
Combined oxide products	
contain:	
	~ 600 Tonnes
	~ 75 Tonnes
	~ 62 Tonnes
	~3,800 Tonnes
	~6,800 Tonnes
Praseodymium	
Zinc (as ZnS)	12,500 Tonnes

PFS Completed - Robust economic metrics



Economic parameters of PFS development scenario

Full capacity operation, all processing in Greenland (Step 1 and 2)

- •At U₃O₈ price of \$70/lb, TREO basket price of \$41/kg,
- •Modeling assumes value recognition of 60% of REO basket price \$24.6
- Discount rate 10%
- •Ungeared NPV (pre-tax) US\$6.59 Billion, IRR 43%
- Payback period (from commencement of operation) <3 years

	Rare Earth Price Forecasts										
	Company			Actual							
	View	Roskill*	ВСС	Q3 2012							
		2015	2016								
La	\$10	\$28	\$6	\$19.54							
Се	\$5	\$13	\$4	\$20.38							
Pr	\$100	\$100	\$19	\$105.31							
Nd	\$100	\$100	\$130	\$108.85							
Eu	\$1,100	\$1,100	\$4,350	\$2020.00							
Tb	\$1,100	\$1,100	\$3,650	\$1938.46							
Dy	\$900	\$900	\$2,170	\$967.69							
Υ	\$50	\$50	\$275	\$100.00							

^{*}midpoint of range quoted



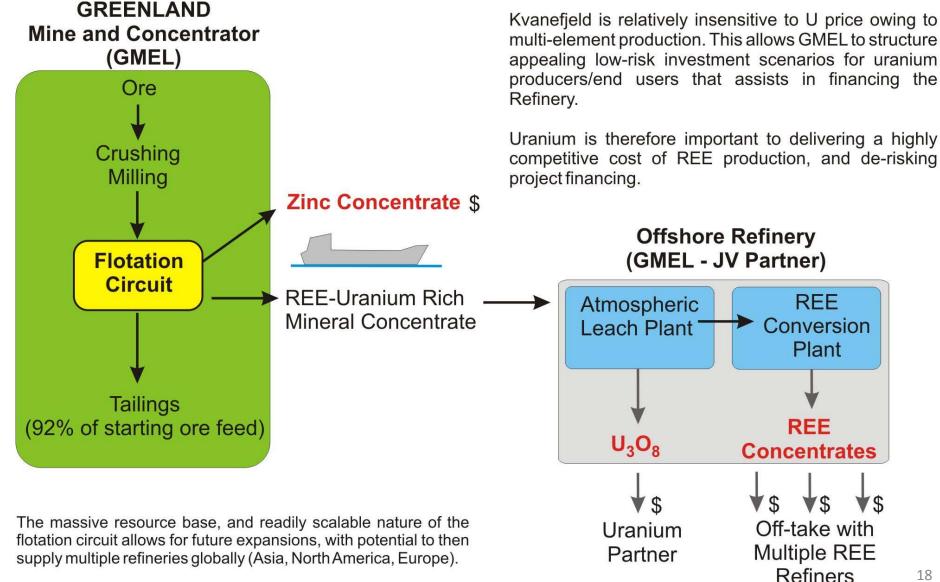
Feasibility Study Update: Implementation Strategy Set to Reduce Project Risk

- The significant improvements made in overall product recovery (27% increase in REO output) has driven studies to investigate a smaller start-up operation than the 7.2 Mt throughput investigated in the PFS; importantly this mitigates market risk, and will serve to further reduce capital costs
- Investigations underway into potential locations to establish a refinery for mineral concentrates produced in Greenland. An appropriate regulatory environment for the handling radioactive materials represents a key criteria
- Conducting the refining in a more suitable location reduces the project footprint in Greenland, and eliminates the need to establish acid plants and associated complex infrastructure that would be more readily established in a mature industrial area
- On the basis of stakeholder feedback on social and environmental impacts the Company believes that a mineral concentrator only in Greenland will be a more appropriate *initial* development scenario for Kvanefjeld (all PFS estimates to date have considered establishing the refining in Greenland)
- Outcomes of a 3Mtpa Mine and Concentrator Feasibility Study will be released in the coming weeks, with outcomes of a study on the refinery anticipated later in 2013



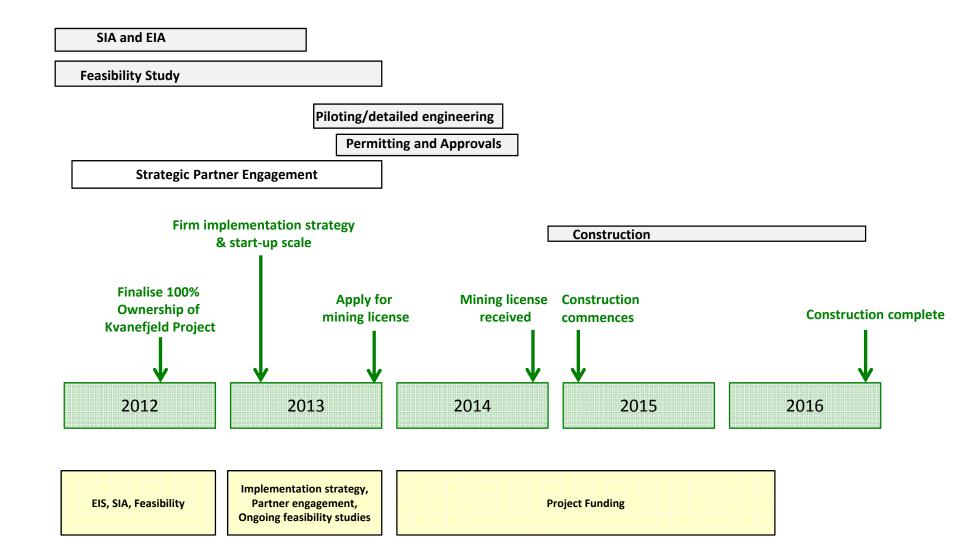
An Increasingly Powerful Proposition





Overview of GME's Development Timeline





Comprehensive Stakeholder Engagement Program





















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The answer to the global rare earth supply crunch – Why?



- ✓ The world's largest rare earth resource, and one of world's larger uranium resources (NI 43-101 or JORC constrained)
- ✓ Direct shipping access to project area year round
- ✓ Large, outcropping ore bodies allow for simple, low cost, open-pit mining
- ✓ Unique and highly favourable ore-type conducive to simple, cost-competitive processing
- ✓ Clear scope to be the largest producer of heavy rare earth elements globally
- ✓ Uranium revenues allow for highly competitive cost structure for rare earth production
- ✓ Technical studies well advanced, process methodology developed by respected metallurgical team

Put simply – Kvanefjeld holds the potential to be the large, new cost-effective producer of critical REEs

Therefore – an asset of immense global strategic significance





Key Highlights – A unique world class mining project





World-class, large scale development project

- Economically robust, proven technology, large-scale, long life production of rare earths concentrate and uranium
- Large JORC resource base to produce ~7kt HREO, 37kt LREO & 3Mlbs U₃O₈ per annum over 30 year mine life
- Ideally located near international airport, existing towns and potential hydro-electric power source

Very attractive commodity portfolio

- Heavy rare earths and uranium are both recognised as strategically important commodities for the future
- Rare earths market characterised by limited capacity and increasing demand (particularly Dy, Nd, Tb, Eu and Y)

Strong management and technical team

- Experienced management team with proven track record
- Well-respected and knowledgeable technical/project team in place with exceptional local expertise

Highly advantageous ore-type, makes for simple cost-effective processing, highly scalable production

- High upgrade through beneficiation brings OPTIONALITY to Kvanefjeld project
- Leaching can be done in Greenland, or owing to the high-grade concentrate, can be shipped to other locations
- Allows to single concentrator in Greenland, multiple refineries/partners globally

Globally significant, long life, low cost, multi-commodity asset

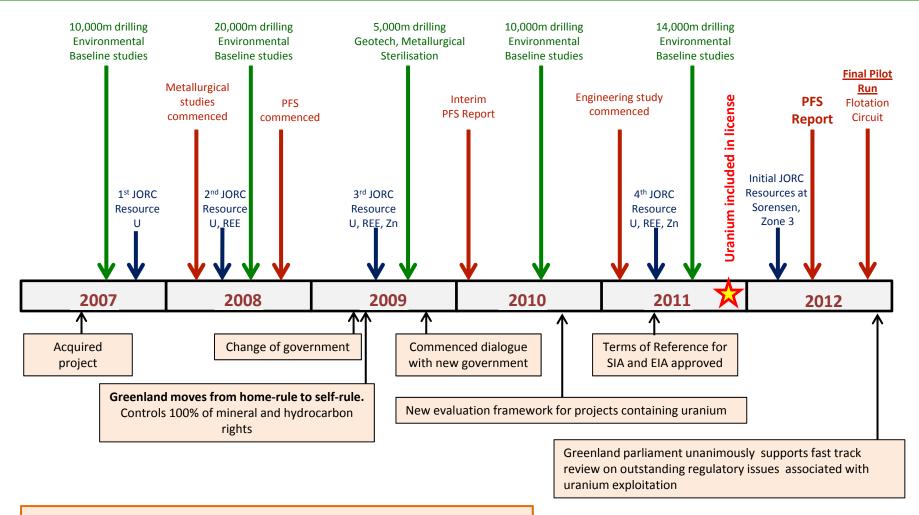
- Company to become one of the largest producers of rare earths globally and a top ten U₃O₈ mine
- Potential to supply >20% of global critical (including heavy) rare earth element demand
- Company has low cost of production due to multiple by-product opportunities

Low political risk

- Stable, low-risk operating environment with government looking to develop new industries and employment
- GME fully permitted to evaluate the project, exploration licence now includes radioactive elements
- Management and board have a solid working relationship with the government and are socially aware



Timeline of Activities – Licensing Developments, Technical Programs



- **2013** Upcoming events on the political calendar:
 - March 12th National Election in Greenland
 - Greenland's Spring Sitting of Parliament

Greenland

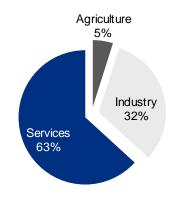
An Emerging Mineral Province

Background

- Greenland, part of the Kingdom of Denmark, was granted Self Rule in June 2009 following a national referendum in Greenland
- Approximately half of Greenlandic public spending is still funded by grants from Denmark [DKK3.2Bn pa]
- > Greenland dependent on the development of a resources sector to provide the means to secure full independence from Denmark
- The current government (Inuit Ataqatigiit) was elected in June 2009 and is pro-mining, issued uranium exploration license for Kvanefjeld project in 2011; Next election March 12, 2013
- Several mining projects are in the pipeline: London Mining Isua, iron ore, Angel Mining – Nalunaq, gold, Ironbark – Citronen, lead/zinc, TANBREEZ – zircon, niobium, rare earth

Relative Location and GDP Breakdown (2007E)





Key Country Data

Land Area:	2.2 million km² (12th globally)
Capital:	Nuuk
Currency:	Danish Kroner (DKK)
Population:	57,600 (205 th globally)
GDP nominal:	US\$2.03 Billion (2009 est)
GDP per capita:	US\$36,500 (2008 est)
Inflation:	9.4% (2008 est)
Government:	Parliamentary democracy within a constitutional monarchy
Government Bond Ratings (Denmark):	S&P: AAA / Outlook Stable

Source: CIA World Factbook (as at January 2012)

Source: CIA World Factbook (as at January 2012)



Kvanefjeld Timeline – A Project With a Deep History

1910	 Mineral exploration first started in the local area Thorium first element to be identified
1956	 Kvanefjeld deposit discovered during systematic radiometric reconnaissance survey of Ilimaussaq Exploration conducted by RISØ, extensive metallurgical development undertaken over 20 yr period
1984	 Project terminated Low uranium prices and Home Rule Authority move against uranium exploitation
2001	 To 2000 demand for uranium and rare earths increased, as did Danish exploration in the area In 2001 Rimbal Pty acquired northern and southern sections of Ilimaussaq
2007	 Greenland Minerals and Energy A/S acquired 61% of northern section Drilling commenced and the first JORC compliant report was released
2010	 Updated JORC compliant resource estimate released Interim PFS completed
	> Finalised agreement to acquire outstanding 39% of project

> Developed effective method of beneficiating resources, work towards advanced flow-sheet

> EIA and SIA initiated, drilling conducted for initial resource estimates on new deposits

2011



Kvanefjeld Multi-Element Project, Statement of Identified Mineral Resources

	Multi-Eleme	ent Resources C	Classificatio	on, Tonr	age and	Grade					al			
Cut-off	Classification	M tonnes	TREO ²	U ₃ O ₈	LREO	HREO	REO	Y_2O_3	Zn	TREO	HREO	Y_2O_3	U ₃ O ₈	Zn
$(U_3O_8 ppm)^1$		Mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Mt	Mt	Mt	M lbs	Mt
Kvanefjeld - March 2	2011													
150	Indicated	437	10929	274	9626	402	10029	900	2212	4.77	0.18	0.39	263	0.9
150	Inferred	182	9763	216	8630	356	8986	776	2134	1.78	0.06	0.14	86	0.
150	Grand Total	619	10585	257	9333	389	9721	864	2189	6.55	0.24	0.53	350	1.
200	Indicated	291	11849	325	10452	419	10871	978	2343	3.45	0.12	0.28	208	0.
200	Inferred	79	11086	275	9932	343	10275	811	2478	0.88	0.03	0.06	48	0.
200	Grand Total	370	11686	314	10341	403	10743	942	2372	4.32	0.15	0.35	256	0.
250	Indicated	231	12429	352	10950	443	11389	1041	2363	2.84	0.10	0.24	178	0.
250	Inferred	41	12204	324	10929	366	11319	886	2598	0.46	0.02	0.03	29	0.
250	Grand Total	272	12395	347	10947	431	11378	1017	2398	3.33	0.12	0.27	208	0.
300	Indicated	177	13013	374	11437	469	11906	1107	2414	2.30	0.08	0.20	146	0.
300	Inferred	24	13120	362	11763	396	12158	962	2671	0.31	0.01	0.02	19	0.
300	Grand Total	200	13025	373	11475	460	11935	1090	2444	2.61	0.09	0.22	164	0.
350	Indicated	111	13735	404	12040	503	12543	1192	2487	1.52	0.06	0.13	98	0.
350	Inferred	12	13729	403	12239	436	12675	1054	2826	0.16	0.01	0.01	10	0.
350	Grand Total	122	13735	404	12059	497	12556	1179	2519	1.68	0.06	0.14	108	0.
Sørensen - March 20	012													
150	Inferred	242	11022	304	9729	398	10127	895	2602	2.67	0.10	0.22	162	0.
200	Inferred	186	11554	344	10223	399	10622	932	2802	2.15	0.07	0.17	141	0.
250	Inferred	148	11847	375	10480	407	10887	961	2932	1.75	0.06	0.14	123	0.
300	Inferred	119	12068	400	10671	414	11084	983	3023	1.44	0.05	0.12	105	0.
350	Inferred	92	12393	422	10967	422	11389	1004	3080	1.14	0.04	0.09	85	0.
Zone 3 - May 2012														
150	Inferred	95	11609	300	10242	396	10638	971	2768	1.11	0.04	0.09	63	0.
200	Inferred	89	11665	310	10276	400	10676	989	2806	1.03	0.04	0.09	60	0.
250	Inferred	71	11907	330	10471	410	10882	1026	2902	0.84	0.03	0.07	51	0
300 350	Inferred Inferred	47 24	12407 13048	358 392	10887 11392	433 471	11319 11864	1087 1184	3008 3043	0.58 0.31	0.02 0.01	0.05 0.03	37 21	0.
Project Total	interred	24	13046	392	11592	4/1	11004	1104	3043	0.51	0.01	0.03	21	0.
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	Zr
(U ₃ O ₈ ppm) ¹	Classification	Mt	_	ppm	ppm	ppm	ppm	ppm		Mt	Mt	Mt	M lbs	M
, , , , ,		IVIL	ppm	ppiii	ppiii	ррпп	ppiii	phiii	ppm	IVIL	IVIL	IVIL	IVI IUS	IVI
150	Indicated	437	10929	274	9626	402	10029	900	2212	4.77	0.18	0.39	263	0.
150	Inferred	520	10687	272	9437	383	9820	867	2468	5.55	0.20	0.45	312	1.
150	Grand Total	956	10798	273	9524	392	9915	882	2351	10.33	0.37	0.84	575	2.

¹There is greater coverage of assays for uranium than other elements owing to historic spectral assays. U₃O₈ has therefore been used to define the cut-off 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.