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19 June 2025 ASX Announcement

Eclipse confirms high-value, coarse-grained rare earths at Grønnedal, backed by an efficient processing pathway

Eclipse Metals Ltd (**ASX: EPM**) is pleased to confirm that its Grønnedal rare earth elements (REE) Project in southwest Greenland continues to solidify its position as a strategically important and globally significant source of REE. The Project metrics are supported by robust scientific data and including benchmarked mineralogical results.

Project Highlights:

- **Dominant synchysite, bastnasite and monazite mineralogy - ideal for Nd-Pr permanent magnet feedstock.**
- **Coarse-grain size of key REE minerals with up to 54% liberation, supporting low-cost, conventional flotation pathways.**
- **The defined resource of 89Mt represents approximately 6% of the carbonatite body, with extensive growth potential.**
- **Niobium ~4,670ppm, Yttrium ~777ppm, and HREE credits enhance the Project's overall economics.**
- **Tier-1 Greenland location with deep-water access and no uranium permitting constraints.**
- **Mineralogical studies provide a strong foundation for upcoming metallurgical and process design work.**

A recent mineralogical study completed by SGS Canada has confirmed the presence of high-value rare earth minerals, including Synchysite, Bastnasite and Monazite – highly sought-after hosts of magnet rare earth elements (Nd, Pr, Dy, Tb).

The recent mineralogical assessment returned significantly elevated niobium grades, ranging from <40ppm to 4,670ppm, and yttrium values ranging from 39ppm to 777ppm (refer Appendix 1), highlighting the polymetallic nature of the mineralisation and its potential for enhanced downstream value capture.

Both elements are increasingly sought after for superconductors, defence alloys, and advanced electronics, further elevating Grønnedal's importance within the global critical minerals ecosystem.

Importantly, the test work confirms that the mineral assemblage is highly amenable to conventional processing, aligning with proven flowsheets successfully applied at other globally recognised REE operations, including Mountain Pass (USA) and Mount Weld (Australia).

Commenting on the SGS mineralogical results, Eclipse Metals Executive Chairman Carl Popal said:

"The Grønnedal REE complex continues to deliver compelling results that reinforce its emerging position as a globally strategic rare earths project. With 89 million tonnes now defined, the combination of scale, favourable mineralogy, coarse grain size and demonstrated processability sets Grønnedal apart as one of the few Western rare earth deposits with a clear pathway toward scalable development.

"The polymetallic nature of the mineralisation, combined with high liberation rates confirmed through advanced mineralogical studies, supports the potential for efficient recovery using well-established processing routes, further strengthening Grønnedal's relevance to EU and North American critical minerals supply chains.

"Eclipse remains committed to responsible and transparent development in Greenland while advancing the project with a disciplined focus on value creation and global supply chain diversification,"

Introduction

The Grønnedal resource is contained within rocks of the Proterozoic Grønnedal Complex that intrude Archean basement gneissic rocks in the Gardar Province, Southwest Greenland.

The Grønnedal REE complex is located within a northerly trending 8km x 3km ovoid body of layered nepheline syenites, which are intruded by a xenolithic syenite and a central plug of carbonatite.

These rocks have, in turn, been intruded by large north-east trending dolerite dykes. The concentration of rare earth elements is developed in both the carbonatite and the surrounding rocks. The current Mineral Resource, comprising 89Mt grading 6,363ppm TREO, is confined to a small portion (~6%) by volume of the carbonatite intrusion (Table 1).

Classi-fication	Tonnage	*Grade*				*Contained Material*				*Pr+Nd Summary*		
		TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO	Pr+Nd (ppm)	Pr/Nd %	Pr/Nd Ratio
	Mt	ppm	ppm	ppm	ppm	Kt	Kt	Kt	Kt			
Inferred	89.2	6,363	5,941	422	2,497	567.6	529.9	37.7	23	1,815	29	1:4

Table 1: Grønnedal Mineral Resource Estimate at 2,000 ppm TREO Cut Off

A key input to the MRE was a series of 23 core samples that were taken from historic diamond drilling (refer to ASX Announcement, 28 April 2025). The locations of these samples are detailed in Appendix 2.

Following analytical determinations, these samples were then subjected to detailed mineralogical studies. Both analytical and mineralogical studies were undertaken by SGS Laboratories, Canada.

The mineralogical work was conducted with TIMA-X (Tescan Integrated Mineral Analyzer), X-ray diffraction analysis (XRD), and chemical assays. The purpose of this test program was to conduct geochemical analyses and determine the mineralogical characteristics of these samples.

Key Mineralogical Findings

Key rare earth host minerals identified in the SGS test work are summarised in Table 2.

Mineral	Formula	Max Abundance	Value-Add Characteristics
Synchysite	$CaY(CO_3)_2F$	5.09%	Dominant LREE host, highly floatable
Bastnasite	$(La, Ce, Y)CO_3F$	1.03%	Key carrier of Nd/Pr for permanent magnets
Monazite	$(Nd,La,Ce)PO_4$	0.81%	Heavy REE potential with Y, Th, Dy, Tb

Table 2: Identified Mineralogy

This mineral suite compares favourably to operating producers and allows for simplified flowsheet design.

Liberation Characteristics

Encouraging liberation characteristics are summarised in Table 3 and detailed in Appendix 3.

Mineral	Maximum Liberation	Grain Size (P80)
Synchysite/Bastnasite	54.40%	19 – 205 µm
Monazite	43.60%	15 – 110 µm

Table 3: Mineralogy Study Liberation Characteristics

The relatively coarse grain-size results in a liberation profile indicative of lower grinding energy inputs and high flotation/magnetic separation efficiencies.

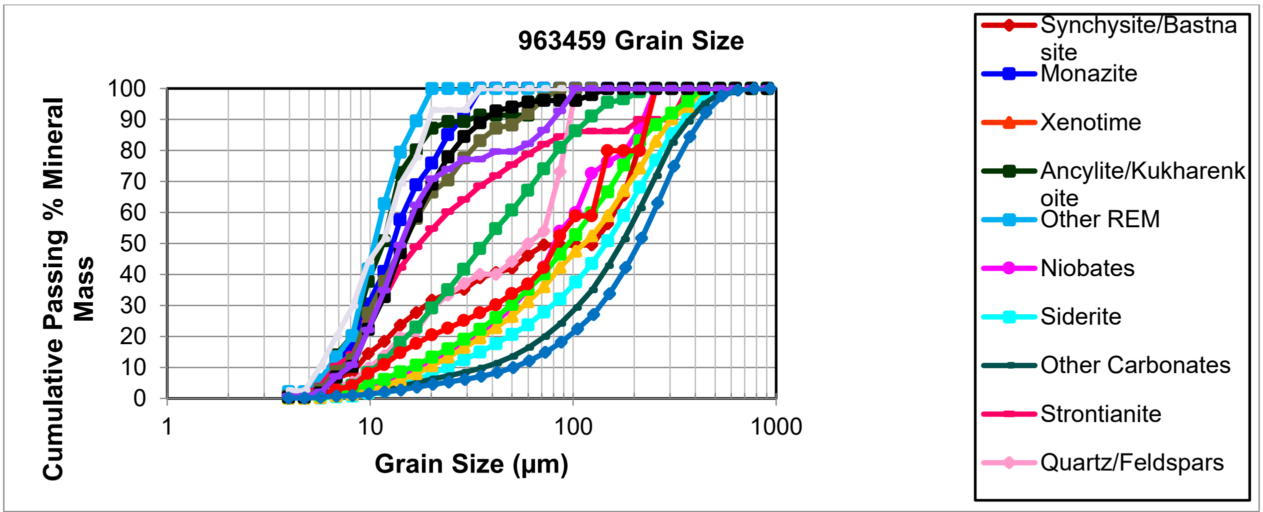

Figure 1: *The graph above shows the grain- size range for synchysite/bastnasite in Sample 963459*

The coarse grain size and high liberation percentages suggest highly efficient flotation and magnetic separation pathways with relatively low grinding energy input. These characteristics are considered by Eclipse to be significant when compared to other REE projects globally.

Comparative Benchmarking

While Grønnedal is still at the exploration stage, mineralogical characteristics compare favourably with several producing operations, supporting broader efforts toward a more diversified and resilient global supply chain.

Deposit	Location	Liberation
Grønnedal	Greenland	Up to 54.4% (From mineralogical tests*)
Mountain Pass	USA	lower liberation
Mount Weld	Australia	fine-grained, more complex
Bayan Obo	China	highly complex

Table 4: Liberation Characteristics
*These results are indicative and require follow-up Metallurgical Tests for confirmation.

Grønnedal exhibits a rare combination of simplicity, favourable mineral associations and optimal grain size, offering strong capital and operational cost advantages. The results from the mineralogical testing completed by SGS confirm potential for conventional flotation as primary recovery, given the dominance of synchysite, bastnasite and monazite. Grønnedal's simpler mineralogy, coarse grains, higher liberation rates, and enriched heavy rare earth elements (HREE) profile position the Project favourably in comparison to several operating global REE producers.

ADDITIONAL VALUE-ADDING FEATURES

- **Niobium (Nb):** Up to **4,670ppm**; contained in pyrochlore and columbite in sample 963462
- **Yttrium (Y):** Up to **777ppm**; hosted by xenotime and fergusonite in sample 963467.
- **Samarium, Dysprosium, Terbium:** In commercial grades supporting HREE upside.

STRATEGIC GEOPOLITICAL & JURISDICTIONAL ADVANTAGE

- Only ~6% by volume of the carbonatite intrusion has been drilled, leaving considerable upside across a mapped 8km x 3km intrusion.
- Confirmed mineralogy shows potential for practical, scalable, and Western-compatible processing routes.
- Deep water access, grid infrastructure, and zero uranium penalty provide permitting and ESG advantages over many global peers.
- Positioned to directly service EU and US policy mandates for REE supply chain resilience.

Located in southwest Greenland with direct deep-water port access, Grønnedal is uniquely positioned to support EU and North American REE supply chains, contributing to broader efforts toward diversified and resilient global critical mineral networks.

NEXT STAGE DEVELOPMENT PATHWAY

The SGS data underpins the transition to pre-feasibility level metallurgical studies, including:

- domain-based composite sampling
- bench-scale flotation and magnetic separation trials
- leaching tests to optimise monazite and bastnasite recovery
- EPMA (electron probe) studies to refine REE deportment models
- Eclipse is planning to undertake further metallurgical test work and drilling to expand the resource base and fully realise the potential of the Grønnedal carbonatite complex

This development pipeline is designed to fast-track Grønnedal toward production-readiness while minimising technical and permitting risks.

Authorised by the board of Eclipse Metals Limited.

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ABOUT ECLIPSE METALS LTD (ASX: EPM)

Eclipse Metals Ltd is an Australian exploration company focused on exploring southwestern Greenland, Australia's Northern Territory and state of Queensland for multi-commodity mineralisation. Eclipse has an impressive portfolio of assets prospective for cryolite, fluorite, siderite, quartz (high-purity silica), rare earths, gold, platinum group metals, manganese, palladium and vanadium mineralisation. The Company's mission is to increase shareholders' wealth through capital growth and ultimately dividends. Eclipse plans to achieve this goal by exploring for and developing viable mineral deposits to generate mining or joint venture incomes.

ABOUT THE IVIGTÛT PROJECT

Eclipse Metals' Ivigtût Project is in southwestern Greenland and includes the Ivigtut Cryolite-Polymetallic Deposit and the Grønnedal REE Deposit. The project has favourable infrastructural, with a power station, and fuel supplies to service this station, and local traffic infrastructure to support minerals exploration. About 5.5 kilometres to the northeast of the Ivigtût prospect, the twin settlements of Kangilinnguit and Grønnedal provide a heliport and an active wharf with infrastructure. The Ivigtût project's Grønnedal carbonatite complex prospect is less than 10km from Ivigtût and only 5km from the port of Grønnedal. This complex is also one of the 12 larger Gardar alkaline intrusions and is recognised as one of the prime rare earths targets in Greenland by GEUS, along with Kvanefjeld and Kringlerne.

COMPETENT PERSONS STATEMENT

The information in this announcement that relates to exploration results and exploration targets is based on information compiled and reviewed by Mr Alfred Gillman, Non-Executive Director of Eclipse Metals Ltd. Mr Gillman holds a B.Sc (Honours) from the University of Western Australia and is a Fellow and Chartered Professional (Geology) of the Australasian Institute of Mining and Metallurgy (FAusIMM, CP). Mr Gillman has sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported 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. Mr Gillman consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

Information contained in this report relating to mineral resources has been previously reported by the Company on 3 June 2025 (Announcement). Eclipse confirms that it is not aware of any new information or data that would materially affect the information included in the Announcement, and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not changed materially.

Appendix 1

Geochemical Results for Grønnedal Samples

Sample ID	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	TREE pp	U ppm	Th ppm	Ga ppm	Y ppm	Ta ppm	Nb ppm
963451	430	660	74.5	242	32.7	7.4	14.8	1.5	9.2	1.5	4.2	0.4	4	0.5	1482.7	20.2	8.4	35	39	91	1130
963452	774	1410	174	689	133	44.3	112	15.4	84	14.9	35.3	3	13.8	1.4	3504.1	402	78.2	6	354	25	1710
963453	2250	4640	591	2250	348	111	230	23	91.4	12.6	23.6	1.7	8.8	0.6	10582	15.6	268	14	302	13	1160
963454	2370	4900	721	2980	532	166	386	43.3	188	26.1	53.5	5.3	16.4	2.4	12390	2.3	261	11	615	<10	82
963455	756	1710	251	1040	174	57.7	144	16.3	80	12.6	25	2.9	10.4	1.5	4281.4	41.5	26.8	<5	302	24	948
963456	491	1070	158	690	134	50.8	126	17.3	99.1	15.3	31.9	3.1	13.5	1.7	2901.7	2.3	12.6	<5	392	<10	49
963457	2320	3990	468	1610	182	52.3	116	14	64.9	9.9	21.5	2.1	11.2	1.2	8863.1	7.3	45.5	14	264	<10	277
963458	4580	7280	820	2740	309	84.6	168	16.2	79.9	10.1	18.6	1.8	8.6	<0.5	16117	7.6	102	27	242	<10	65
963459	748	1410	176	681	116	39.1	106	14.4	76.4	11.6	27.8	2.6	13.7	1.2	3423.8	32.1	23.2	6	317	<10	835
963460	874	1660	205	763	119	37.8	96.3	11.6	58.9	8.5	17.4	1.7	9.1	1	3863.3	11.2	39.8	<5	219	<10	393
963461	1500	3680	542	2350	458	154	356	41.1	183	25.8	55.3	4.7	17.4	1.7	9369	13.4	268	8	644	<10	72
963462	2030	4520	601	2350	356	102	215	21.9	106	16.1	34.3	3.2	13.6	1.1	10370	91.5	353	18	399	77	4670
963463	2650	6720	977	4010	689	225	495	50.1	214	27.3	54.8	4.1	19	1.2	16137	12.8	515	13	673	16	843
963464	688	1690	250	1150	218	70.5	180	21.2	105	13.6	27.4	1.7	6	0.5	4421.9	0.7	64.6	<5	302	<10	58
963465	2290	6250	894	3660	549	149	322	31.4	132	16.4	31.1	2	9.7	<0.5	14337	1	529	10	381	21	<40
963466	1390	2980	389	1570	302	92.6	220	25.4	129	18.7	39.3	3.8	18	1.5	7179.3	1.6	198	6	467	<10	<40
963467	1450	3520	485	2140	497	167	361	45.3	213	34.3	58.7	7.1	27.6	3.1	9009.1	40.2	230	<5	777	5	163
963468	2620	4600	478	1640	253	86.6	175	21.1	79.2	13.6	22.9	3.8	9.6	1.8	10005	12.7	164	10	272	<10	2020
963469	290	686	89.4	374	74.3	23.9	52	7.5	34.3	6.9	11.6	1.9	5	1.1	1657.9	10.6	19.8	17	126	33	3090
963470	1130	3060	431	1930	391	130	272	32.9	146	23.4	41.8	4.7	19.7	2.2	7614.7	1.4	184	<5	524	<10	<40
963471	626	1540	207	918	221	80.4	187	30.9	175	32.3	67.9	7.9	32.1	3.4	4128.9	115	64.3	<5	728	40	2130
963472	1590	4720	671	2910	557	168	296	31.7	110	15.6	25.7	2.7	9.5	1.1	11108	1	333	<5	302	<10	<40
963473	1310	3830	545	2370	468	143	283	31.1	126	15.5	27.7	3	12.8	1.3	9166.4	2.4	271	<5	347	<10	74

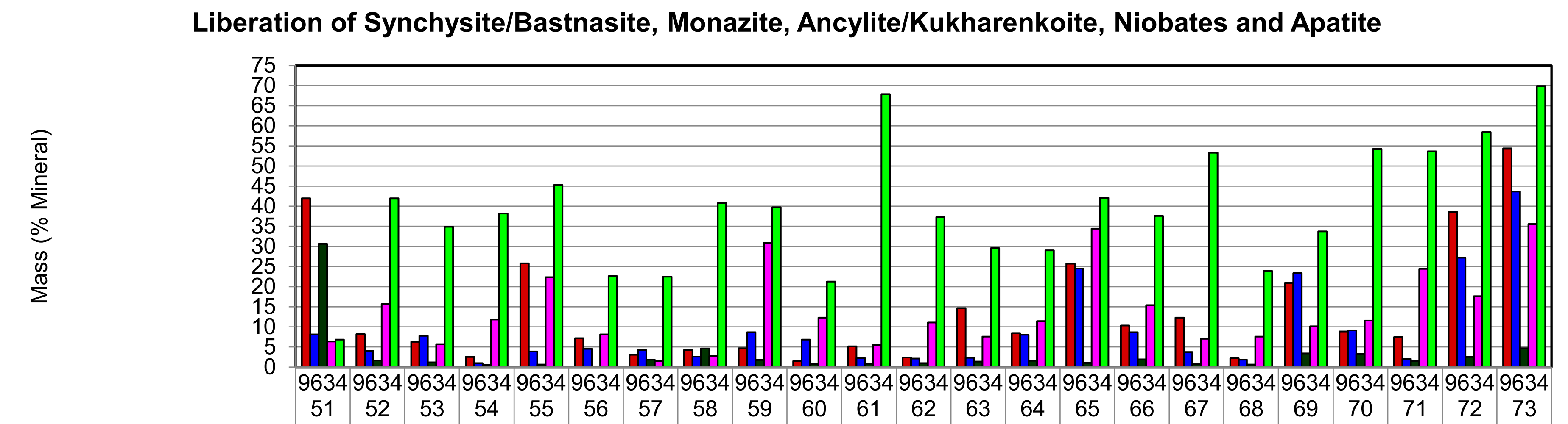
Appendix 2

Grønnedal Analytical Data

Drillhole Information										Point Sample Location			REO Summary (ppm)				Light REO (ppm)					Heavy REO (ppm)										Pr+Nd Summary		
Hole ID	Easting	Northing	RL	Depth	Azimuth	Dip	From (m)	To (m)	Interval (m)	x	y	z	TREO	LREO	HREO	MREO	CeO2	La2O3	Pr2O3	Nd2O3	Sm2O3	Dy2O3	Er2O3	Eu2O3	Gd2O3	Ho2O3	Lu2O3	Tb2O3	Tm2O3	Y2O3	Yb2O3	Pr+Nd (ppm)	Pr/Nd %	Pr/Nd Ratio
R	658997	6791046	424	200.8	160	-50	25.5	25.8	0.3	659002.6	6791030.5	403.9	20,092	17,981	2,111	6,124	8,254	3,108	1,143	4,677	799	246	63	261	571	31	1	58	5	855	22	5,821	29	1:4
R							40.1	40.5	0.4	659005.9	6791021.7	392.6	11,969	10,185	1,784	3,633	4,520	1,759	634	2,741	531	210	63	178	410	30	2	47	5	818	20	3,375	28	1:4
R							43.2	43.4	0.2	659006.5	6791019.8	390.3	12,887	11,789	1,098	3,591	5,551	2,381	703	2,741	413	122	39	118	248	18	1	25	4	507	15	3,444	27	1:4
R							195.1	195.5	0.4	659039.9	6790928.0	273.9	5,643	4,769	874	1,779	2,076	807	293	1,341	253	121	31	82	207	16	1	24	2	384	7	1,634	29	1:5
S	658997	6791046	424	99.4	160	-70	14.7	15.2	0.5	658998.7	6791041.2	409.5	17,597	16,314	1,283	5,503	7,676	2,686	1,046	4,269	637	151	36	173	371	19	1	36	2	484	11	5,315	30	1:4
S							48.8	49.3	0.5	659002.7	6791030.2	377.4	9,151	7,927	1,224	2,464	3,660	1,630	455	1,831	350	148	45	107	254	21	2	29	4	593	20	2,286	25	1:4
S							52.2	52.3	0.2	659003.1	6791029.2	374.4	11,706	9,664	2,042	3,360	4,323	1,701	568	2,496	576	244	67	193	416	39	4	52	8	987	31	3,064	26	1:4
S							71.4	71.9	0.5	659005.4	6791023.0	356.2	12,310	11,488	822	2,587	5,650	3,073	559	1,913	293	91	26	100	202	16	2	24	4	345	11	2,472	20	1:3
T	659086	6791056	421	175.6	160	-50	0.5	1.8	1.3	659086.3	6791055.3	420.3	13,632	12,487	1,144	4,342	5,797	1,865	785	3,394	646	126	29	195	341	18	1	36	3	384	11	4,179	31	1:4
T							1.8	4.1	2.4	659086.6	6791054.2	418.9	11,367	10,185	1,182	3,583	4,704	1,536	638	2,764	543	145	32	166	326	18	1	36	3	441	15	3,402	30	1:4
T							15.9	16.6	0.7	659089.6	6791046.2	408.7	5,828	4,195	1,634	1,549	1,891	734	242	1,071	256	201	78	93	216	37	4	36	9	924	37	1,313	23	1:4
T							32.3	33.1	0.8	659093.2	6791036.2	396.1	9,732	8,293	1,440	2,961	3,758	1,325	504	2,251	453	168	48	151	314	27	3	38	5	665	22	2,756	28	1:4
T							165.9	166.4	0.6	659122.5	6790955.6	293.9	2,136	1,810	326	589	843	340	105	436	86	39	13	28	60	8	1	9	2	160	6	541	25	1:4
U	659002	6790970	439	155.1	160	-50	21.5	22.0	0.5	659006.8	6790956.9	422.6	15,537	13,734	1,802	4,585	6,018	2,780	844	3,476	617	216	61	192	445	30	3	50	6	781	19	4,320	28	1:4
U							36.7	37.2	0.5	659010.1	6790947.7	410.9	13,020	12,057	963	3,447	5,699	2,639	692	2,624	404	105	27	129	265	14	1	26	2	384	10	3,316	25	1:4
U							40.9	41.3	0.4	659011.0	6790945.2	407.7	4,623	3,801	822	1,121	1,732	908	204	804	154	96	40	51	129	17	2	18	3	450	16	1,007	22	1:4
U							133.0	133.1	0.1	659031.3	6790889.6	337.3	1,822	1,722	100	382	811	504	87	282	38	11	5	9	17	2	1	2	0	50	5	369	20	1:3
V	658887	6790944	434	61	160	-50	21.3	21.4	0.1	658891.7	6790931.1	417.7	4,483	3,744	739	1,105	1,732	877	206	794	135	88	32	45	122	13	1	17	3	403	16	1,000	22	1:4
V							20.2	20.7	0.5	658891.5	6790931.6	418.4	4,889	4,332	557	1,211	2,039	1,025	240	890	138	68	20	44	111	10	1	13	2	278	10	1,130	23	1:4
V							46.7	47.2	0.5	658897.3	6790915.6	398.1	10,931	10,258	673	2,516	4,901	2,721	548	1,878	211	74	25	61	134	11	1	16	2	335	13	2,426	22	1:3
X	658870	6790970	423	58.1	340	-50	34.2	34.6	0.4	658862.4	6790990.8	396.7	19,581	18,827	755	4,266	8,941	5,371	960	3,196	358	92	21	98	194	12	1	19	2	307	10	4,156	21	1:3
X							44.6	44.7	0.1	658860.2	6790997.0	388.8	3,945	3,035	910	1,123	1,314	576	185	805	155	114	36	59	145	18	2	20	4	498	15	990	25	1:4
X							52.7	52.9	0.2	658858.4	6791001.9	382.6	5,482	4,695	787	1,617	2,100	887	294	1,213	202	92	29	67	166	14	2	19	3	384	12	1,507	27	1:4
										Average			9,929	8,839	1,090	2,758	4,086	1,793	519	2,082	359	129	38	113	246	19	2	28	4	496	15	2,601	26	1:4

Appendix 3

Liberation (Normalized Mass%) of Synchysite/Bastnasite, Monazite, Apatite and Niobates



	963451	963452	963453	963454	963455	963456	963457	963458	963459	963460	963461	963462	963463	963464	963465	963466	963467	963468	963469	963470	963471	963472	963473
Synchysite/Bastnasite	42.0	8.20	6.30	2.52	25.8	7.14	3.08	4.31	4.69	1.49	5.13	2.37	14.7	8.48	25.7	10.4	12.3	2.18	21.0	8.86	7.47	38.6	54.4
Monazite	8.14	4.09	7.80	0.99	3.88	4.53	4.19	2.59	8.67	6.85	2.23	2.10	2.35	8.07	24.5	8.68	3.72	1.83	23.3	9.14	2.08	27.2	43.6
Ancylite/Kukharenkoite	30.6	1.68	1.20	0.59	0.61	0.18	1.87	4.60	1.75	0.75	0.83	1.00	1.39	1.58	1.02	1.92	0.71	0.67	3.43	3.26	1.51	2.49	4.68
Niobates	6.37	15.7	5.69	11.9	22.3	8.13	1.41	2.75	30.9	12.3	5.50	11.1	7.56	11.4	34.4	15.4	7.04	7.61	10.2	11.6	24.4	17.7	35.5
Apatite	6.83	42.0	34.9	38.2	45.3	22.6	22.5	40.8	39.8	21.3	67.8	37.3	29.5	29.0	42.1	37.6	53.3	23.9	33.8	54.3	53.6	58.5	69.9

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- FIELD EXPLORATION UPDATE IVITTUUT GREENLAND PROJECT, ASX Announcement, 17 November 2021
- HISTORICAL SAMPLES FROM THE IVITTUUT PROJECT RETURN HIGHGRADE RARE EARTH RESULTS, ASX Announcement, 15 November 2021
- STRONG RARE EARTH MINERALISATION IN GRONNEDAL-IKA AREA GREENLAND PROJECT, ASX Announcement, 2 March 2021
- GREENLAND MULTI-COMMODITY PROJECT RETURNS MORE HIGH-GRADE REE RESULTS, ASX Announcement, 24 March 2021
- TRENCHING RESULTS CONFIRM NEODYMIUM-RICH REE MINERALISATION AT GRØNNEDAL, GREENLAND, ASX Announcement, 25 July 2023
- HIGH GRADE REE RESULTS FROM MAIDEN DRILLING PROGRAM AT GRØNNEDAL, GREENLAND, ASX Announcement, 8 August 2023
- RARE EARTHS IDENTIFIED OVER 5 KM STRIKE AT GRØNNEDAL DEPOSIT, GREENLAND, ASX Announcement, 1 December 2023
- DRILL CORE ASSESSMENT CONFIRMS WIDESPREAD DEEP-SEATED REE MINERALISATION, ASX Announcement, 15 October 2024
- MAIDEN INFERRED RESOURCE DECLARED FOR THE GRONNEDAL RARE EARTH PROJECT, GREENLAND, ASX Announcement, 9 February 2024

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Grønnedal carbonatite samples collected from trenches and drill-holes. • Initial field tests by hand-held XRF assumed to be indicative only. Instrument not calibrated. • Chemical analyses to assess levels of elements contained, not for ore-grade estimates. • Selected core chips representing different rock types from two areas within Eclipse Metals' Greenland tenement MEL2007-45. • The core chips are from diamond holes drilled historically.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Open-hole, top-drive, rotary air-blast drilling. • Historic diamond drilling was carried out using NQ diameter bits
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Drill samples collected by vacuum system and bagged on-site. • Full core has been partially logged and sampled under controlled conditions. • Continual monitoring of sample recovery system. • Samples logged on-site, each sample mixed and combined, riffle-split and bagged with duplicates retained in off-site storage facility.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral*	• The samples have been logged geologically and recorded as a guide for future field work and exploration planning.

Criteria	JORC Code explanation	Commentary
	Resource estimation, mining studies and metallurgical studies. • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Sample-logging is qualitative in nature.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Samples for geological determination, identification and for assay. • Samples riffle split in secure storage facility. • Duplicates collected and stored for back-up. • QC adequate for early level of exploration. • There are small sections of NQ half-core samples sawn in over several periods. • The NQ core samples are characterised as point samples as opposed to interval samples and in the context of an inferred resource and a disseminated style of REE deposit are considered to be indicative of whole of rock mineralisation. • Field quality control procedures are not applicable for the historical core samples. • These data are considered to be representative at the inferred level of resource classification
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	. • Standard laboratory procedures for sample preparation, elemental determination by ALS Laboratories using ME-MS 61-REE assay method, • Standard laboratory QA/QC. • Standard laboratory procedures with blanks and duplicates. No external laboratory checks warranted at this stage. • Laboratory core sample treatment was carried out by SGS Lakefield, Canada using a sodium peroxide (Na_2O_2) digestion followed by ICP-MS (Inductively Coupled Plasma Mass Spectrometry). • The data provided by SGS Lakefield, Canada are considered to be of high quality with applicable QAQC procedure having been applied.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Drilling and trenching for geological and chemical determinations. • Twinning not appropriate at this stage of exploration. • Standard laboratory documentation.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• UTM coordinates for Grønnedal historical drilling have been tabulated.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Each trench location recorded by hand-held GPS. • Location data to be used in computer program for indication of continuity or resource estimation. • Samples Crushed, riffle- split and bagged with duplicates retained in storage in Greenland. • No compositing.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Shallow exploration trenches not oriented. • Drill hole azimuth measured and recorded in attached tables. • Historic diamond holes originally targeted iron-rich areas. • Mineralisation is not structurally controlled. • There is no preferred orientation of drillholes.
Sample security	• *The measures taken to ensure sample security.*	• Vacuum drillhole samples secured on-site, transported to private, lock-up building, processed, bagged and transported in locked shipping container and transported to ALS Laboratories, Perth Australia by ship under normal security procedures. • Core samples were held in high-security laboratory environment before air-freighting to SGS Lakefield, Canada.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been conducted on the project.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• MEL2007-45 tenement granted to Eclipse Metals Greenland (a wholly owned subsidiary of Eclipse Metals Ltd) by the Greenland Minister of Finance, Industry and Minerals Resources, as announced to the ASX on 17 February 2021. • No known impediments to obtaining mining licence.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	**GEUS Report File No. 20236** Planning of the Ivigtût Open Pit of Kryolitselskabet Oresund A/S - Mining of the Flouritic Orebody"; Outokompu OY Mining Consultants, 1987. This report provided 18 cross sections showing drill traces with cryolite (kry), fluorite (fs) and siderite (sid) values together with pit profiles, resource blocks and tabulated tonnage estimates on each section with an SG of 2.95. **GEUS Report File No. 20238** "The Planning of the Ivigtût Open Pit of Kryolitselskabet Oresund A/S – Report of the First Phase, Investigation of the Quantity and Quality of Extractable Ore from the Ivigtût Open Pit"; Outokompu OY Mining Consultants, 1986. This report contained 23 sections showing drillhole traces and contoured cryolite/fluorite grades with an overlay of resource blocks. These sections were used to check positions of drillholes relative to those shown in the above report (GEUS 20236). Resource tonnages are provided. **GEUS Report File No. 20335** Kryolitselskabet Oresund A/S, De Resterende Mineralreserver I Kryolitforekomsten Ved Ivigtût, Ultimo 1987" This report is the most useful of the reports. It provides: - Drillhole location plan - Complete cross section locations - Pit survey points - Plans of underground and in-pit ramp - 38 cross section showing drillhole traces, geological interpretation and ore blocks - Tabulated ore blocks with cryolite, fluorite and siderite grades and tonnages (back-calculated blanket SG of 3)

Criteria	JORC Code explanation	Commentary
		GEUS Report File No. 21549 "Ivigtût Mineopmaaling, 1962" This report is a survey record of the open pit and includes 28 sections, each of which show the pit profile together with drillhole traces and, on some sections, underground workings. **GEUS Report File No. 20241** Kryolitselskabet Oresund A/S, Lodighedsdistribution I, Ivigtût Kryolitbrud, 31.12.1985" (Danish) 108 pages of drillhole analytical data in %: hole ID, from to, cryolite, fluorspar, Fe, Cu, Zn, Pb, S
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The deposit type is a nepheline syenite and carbonatite intrusion into Archean crystalline basement.
Drill hole information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• All available information is tabulated within the body of report.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Downhole analytical data is not composited.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• Relationship of mineralisation and hole depth recorded and described in body of report.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to, a plan view of drill hole collar locations and appropriate sectional views.*	• Appropriate coordinated maps are provided in the body of the text.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Fully coordinated analytical results included with this report.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Exploration by Eclipse Metals of the Ivigtût and Grønnedal prospects is at an early stage with field work to date consisting of reconnaissance sampling, trenching and a maiden drilling program. The Company expects to be able to report substantive exploration data once it has completed it's 2023/24 field season at the prospects.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Geological mapping; remote sensing; trenching and drilling. • Detailed geological assessments planned for 2023 field season. • Diamond drilling.
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Drill hole data verified by field geologists and by visual examination on maps. • Assay data were imported into the database directly from electronic spreadsheets provide by laboratories. Histograms graphical logs were also prepared and reviewed by the CP.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	• The CP has not visited the site. Site visits to the project have so far been logistically difficult and seasonally affected.

Criteria	JORC Code explanation	Commentary
	• *If no site visits have been undertaken indicate why this is the case.*	
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The resource is contained with rocks of the Proterozoic Grønnedal-Ika Complex that intrude Archean basement gneissic rocks in the Gardar Province, South Greenland. • • The Grønnedal-Ika complex is formed over a northerly trending 8km x 3km ovoid body that dominated by layered nepheline syenites which were intruded by a xenolithic syenite and a central plug of calcite to calcite–siderite carbonatite. • These rocks have, in turn, been intruded by large north-east trending dolerite dykes. The concentration of rare earth elements is developed in the carbonatite. • With a high percentage of outcrop, the area has been mapped in great detail and hence the extents of the geological units that host the REE mineralization are very well understood and defined.