15 October 2024

ASX Announcement

DRILL CORE ASSESSMENT CONFIRMS WIDESPREAD DEEP-SEATED REE MINERALISATION

High Neodymium Enrichment Confirmed in Initial Drill Core Results

- **Widespread Mineralisation: Neodymium (Nd) stands out in XRF core scans from six historical diamond drill holes, confirming extensive rare earth mineralisation and highlighting significant resource potential in Grønnedal.**
- **Deep Deposits: Initial findings indicate a deep-seated rare earth deposit.**
- **Significant Aerial Extent: Rare earth mineralisation at Grønnedal covers an area of 5 km by 2 km, with the current target area focusing on 3 km by 800 m of ferrocarbonatite.**
- **Conductive Targets: An historical airborne electromagnetic survey identified seven conductive targets recommended for follow-up investigation through drilling, indicating depth potential greater than 500m.**
- **Elevated Medium REE: Preliminary results highlight a considerable presence of in-demand magnet medium rare earth elements (MREE), including Nd, Pr, Dy, and Tb.**
- **Comparison: Grønnedal's magnet REE content ranks competitively with global REE projects.**
- **Mineralisation Confirmation: Results validate past surface sampling and drilling, showing consistently high neodymium (Nd) ratios from surface to at least 200m.**
- **Analytical Precision: Spot chemical analyses are being conducted to accurately calibrate XRF results and facilitate the calculation of resource potential.**

Eclipse Metals Ltd (**ASX: EPM**) (**Eclipse Metals** or the **Company**) is pleased to announce promising preliminary findings from an extensive HyperXRF assessment of historical drill core which shows evidence of extensive rare earth resource potential at its Grønnedal prospect within the Ivigtût project in southwestern Greenland. Promising preliminary uncalibrated XRF results support extensive rare earth resource potential as demonstrated by high-grade rare earth element (REE) results from initial core samples released in November 2021, which also demonstrate continuation of mineralisation to depth.

XRF results for core from six historical drill holes have returned evidence of extensive mineralisation, with particularly high neodymium (Nd) ratios within the rare earth element (REE) composition. These findings corroborate the project's rare earth potential at depth and are consistent with previous findings, including the recently announced JORC-compliant resource, shown in **Table 1.**

Previous laboratory results also identified enriched near-surface Nd mineralisation for 28 out of 52 trench samples from 0-2m. Refer to ASX announcement 25 July 2023 trenching results.

Classification	Inferred	Total
Tonnage (t)	1,180,000	1,180,000
Element	**Grade (ppm)**	**Rare Earth Oxide Content (Tonnes)**
TREO	6,859	8,070
LREO	6,266	7,380
HREO	593	700
MREO	**2,385**	**2,810**
CeO_2	2,879	3,390
Dy_2O_3	75	90
Er_2O_3	16	20
Eu_2O_3	86	100
Gd_2O_3	188	220
Ho_2O_3	9	10
La_2O_3	789	930
Lu_2O_3	1	0
Nd_2O_3	**1,879**	**2,210**
Pr_6O_{11}	414	490
Sm_2O_3	306	360
Tb_2O_3	18	20
Tm_2O_3	2	0
Y_2O_3	193	230
Yb_2O_3	7	10

Table 1: Eclipse's Grønnedal classified mineral resource in Greenland

Refer to ASX announcement 9th February 2024, Maiden Inferred Resource.

Initial HyperXRF scan results have provided a preliminary assessment of core from historical drillholes at the Company's Ivigtût project preparatory to comprehensive analytical procedure combined with geochemical analysis. This is required for calibration and to confirm XRF data accuracy to support project resource estimation. Samples are being collected from selected drill core sections to validate and refine the data. Preliminary findings indicate that Nd is a reliable indicator of rare earth mineralisation at Grønnedal.

The Grønnedal carbonatite covers an area of 5 km by 2 km, within which current focus is on a promising 3,000m by 800 m section of ferrocarbonatite.

Extrapolating only the outcropping area of ferrocarbonatite, approximately 1.4 million m^2, to a depth of 50m indicates an exploration target of between 175 and 245 million tonnes of REE mineralisation based on a plausible range of rock density (2.5 and 3.5 gm/cm^3).

The anticipated grade for the exploration target from surface is estimated to be between 6,000ppm and 7,000ppm TREO as adopted for the JORC compliant resource in Table 1 above. This includes around a third or greater magnet REE (Nd, Pr, Dy, and Tb), which is supported by previous results from pitting, drilling, and historical surface rock-chip sampling.

The above exploration target remains conceptual, as further exploration is required to define a Mineral Resource. Although current exploration, including historical and recent drilling, has provided valuable data for geological modelling, the potential quantity and grade are uncertain. The Mineral Resource Estimate provided only covers a smaller defined area, not the full 3,000m by 800m project area, and further exploration is necessary to assess the larger target.

The Mineral Resource Estimate (MRE) includes 1.18 million tonnes with an average grade of 6,859ppm TREO, totalling 8,074 tonnes of TREO, based on a 2,000ppm cut-off. This resource footprint is defined through shallow trenching and drilling over an area of 300m by 150m. (Refer to ASX announcement dated 9th February 2024).

The graph below shows Hyper XRF Nd values plotted for drill hole R with related core lithology.

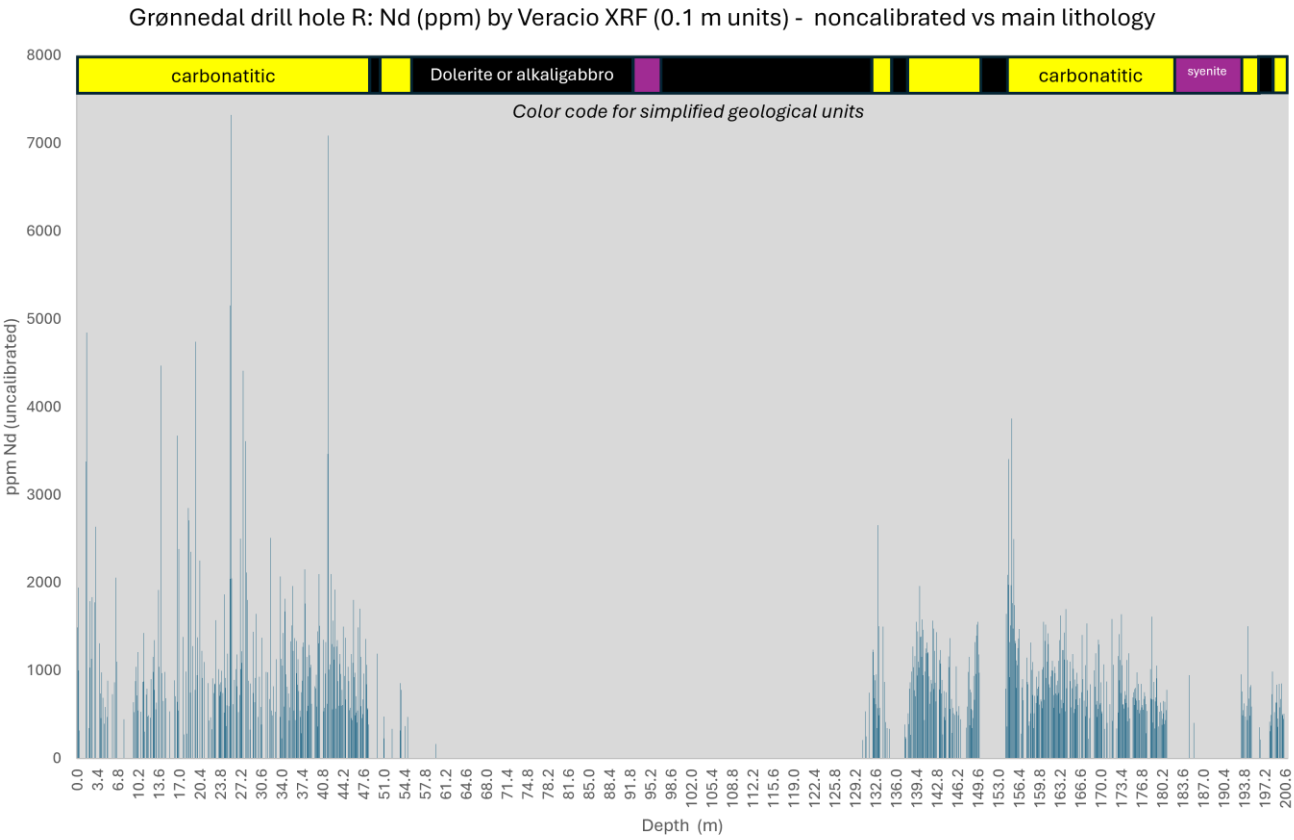

Figure 1: Nd (ppm) in Drillhole R, measured by the HyperXRF CS equipment, uncalibrated
(X-axis is depth; Y axis is Nd ppm)

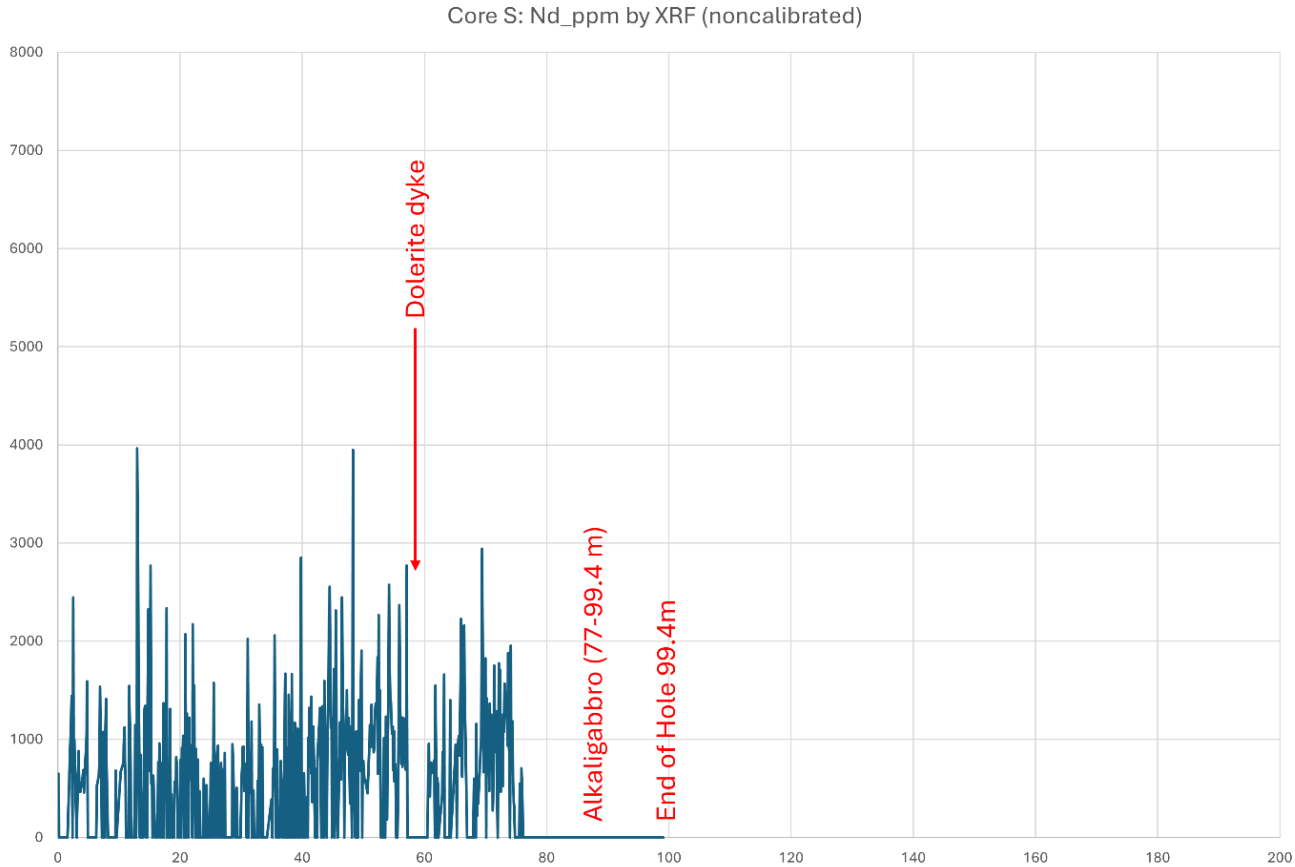

Figure 2: Nd (ppm) in Drillhole S, measured by the HyperXRF CS equipment, is uncalibrated
(X-axis is depth; Y axis is Nd ppm)

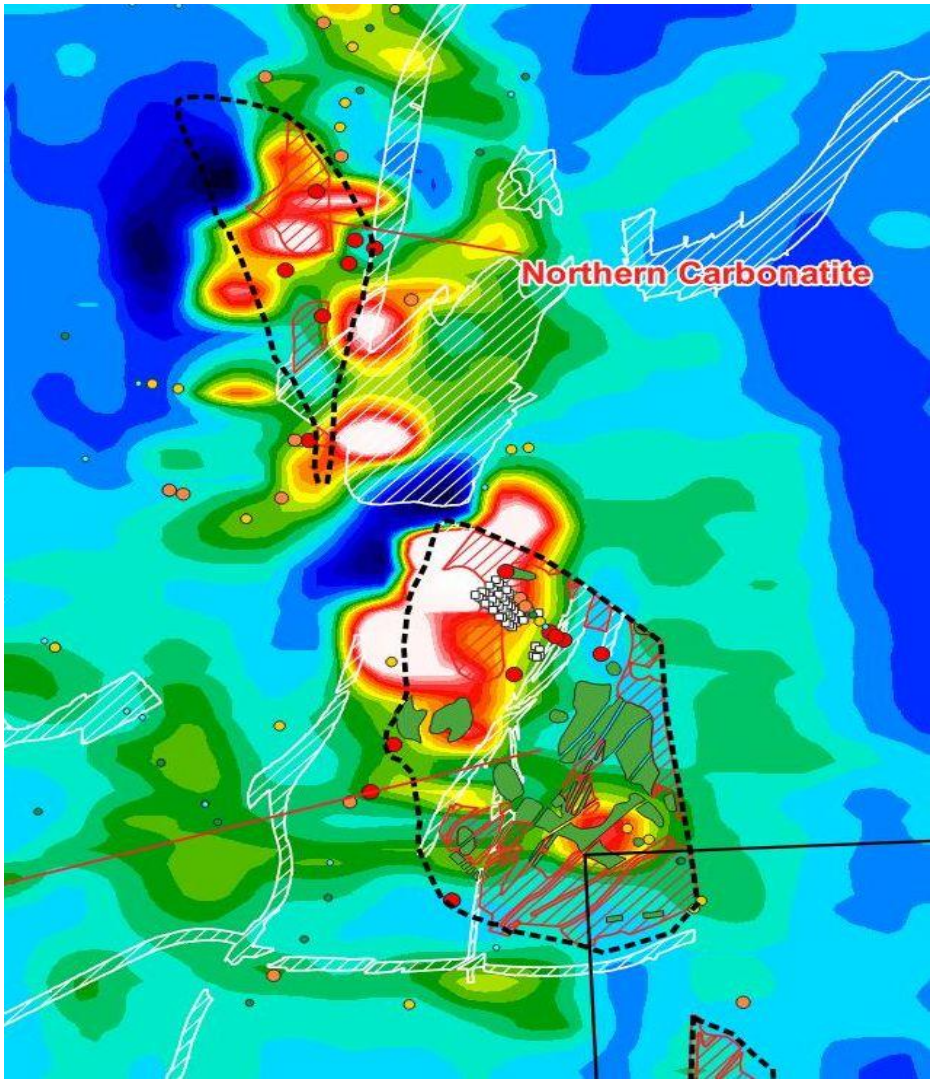

Figure 3: Map showing total magnetic intensity image from DIGHEM survey overlay with drilling, surface rock-chip geochemistry of the Grønnedal nepheline syenite with carbonatite plugs and geology of doloritic dykes (Target Area)

The airborne electromagnetic data has identified seven compelling conductive targets requiring exploration drilling. This data indicates that the ferrocarbonatite formations extend much deeper than previously mapped (500m deep), with indications of additional conductive targets warranting further exploration.

The exploration targets suggest a very large volume of REE, with projections estimating a substantial presence of magnet REE (Nd, Pr, Dy, and Tb). Notably, the concentration of magnetic REE at Grønnedal ranging from 33% to 39% compares favourably with leading international carbonatite REE projects. (Refer to ASX announcement Rare Earth identified over 5 km strike at Gronnedal 1st December 2023).

Further analysis of historical diamond drill core from the Company's Ivigtût Project in Greenland, has been conducted in Sweden applying HyperXRF TruScan and Minalyze technology. This equipment continuously scans the drill core, capturing elemental content across a 2cm swath along its length. While results are reported as un-calibrated, they offer comparative data that will be verified through chemical analysis of selected representative samples.

Initial analyses reveal a notable concentration of medium and magnet rare earth elements (REE), including Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), and Terbium (Tb), placing Grønnedal's magnet REE content in a competitive position compared with global standards. These insights also bolster understanding of leaching effects within the carbonatite iron cap magnetite and siderite rich zones.

Moreover, robust data from the six drill cores tested confirms high neodymium ratios, corroborating previous surface results.

Authorised for release by the Board of Eclipse Metals.

For more information, contact:

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Executive Chairman

Rodney Dale
Non-Executive Director

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, vanadium and uranium 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.

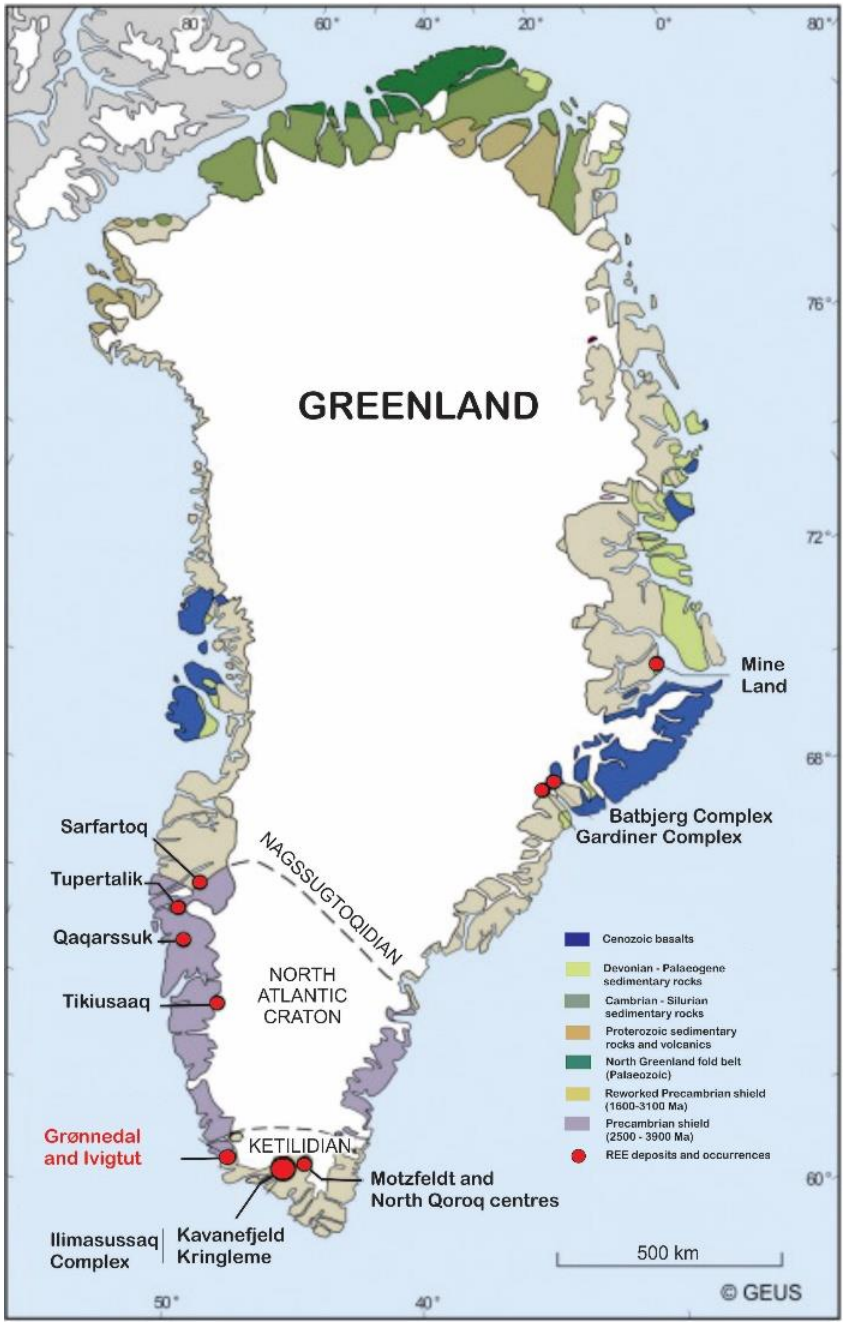
About the Ivigtût Project

Eclipse Metals' Ivigtût project is in southwestern Greenland and has 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 Gronnedal provide a heliport and an active wharf with infrastructure. The Ivigtût project's Gronnedal carbonatite complex prospect is less than 10km from Ivigtût and only 5km from the port of Gronnedal. 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 Rodney Dale, Non-Executive Director of Eclipse Metals Ltd. Mr Dale holds a Fellowship Diploma in Geology from RMIT, is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM) and 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 Dale 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 9 February 2024 (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.



Greenland REE Deposits and location of Grønnedal and Ivigtût

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 (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• 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, in about 1940, 1948 and 1985. • Samples are not representative of an orebody and were collected for initial geological, petrological and geochemical evaluation.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).*	• Conventional diamond drilling.
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.*	• All samples are from holes diamond drilled in about 1940, 1945 and 1985. • Records of procedures and recoveries not available presently. • Full core is yet to be re-logged and sampled under controlled conditions.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral 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.*	• The samples have been logged geologically and recorded as a guide for future field work and exploration planning. • Sample-logging is only qualitative in nature.

Criteria	JORC Code explanation	Commentary
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.*	• There are small sections of half-core samples sawn in about 1940, 1948 and 1985. • The samples are not representative of whole mineralisation. • Quality control procedures are not applicable for the historical core samples.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Full, certified Australian laboratory procedures with QA/QC selected to be appropriate for whole rock and selected determinations, eg REE and high-level silica, strontium, fluorine and related elements. • Normal procedures for duplicates and blanks will be under independent control of the laboratory. • Determinations will be for geochemical evaluation only.
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.*	• Not applicable
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 Gronnedal-Ika historical drilling have been tabulated. • Latitudes and longitudes for a local grid at Ivigtût mine have also 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.*	• Not applicable as selected geological and geochemical samples were collected to represent different rock types with no resource implications.

Criteria	JORC Code explanation	Commentary
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.*	• Not applicable.
Sample security	• *The measures taken to ensure sample security.*	• Samples are to be dispatched by secure sea freight and held in high-security laboratory environment.
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.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The 19,000 metres of diamond drill cores stored in a government facility are yet to be fully logged and re-sampled. • Data and results from exploration conducted by other parties is being accumulated and assessed for reporting and as a guide for future exploration. • Historical results have been used to prepare preliminary exploration models for planning future activities.
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*
		• All available information is tabulated within the body of report.

Criteria	JORC Code explanation	Commentary
	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.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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.*	• Not applicable
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 (eg 'down hole length, true width not known').*	• Not applicable as no resources are estimated.
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.*	• Not applicable
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.*	• All analyses reported as received.
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.*	• All exploration data reported as appropriate and references provided to earlier reports.