11 June 2024

ASX Announcement

HISTORICAL DRILL CORE FROM IVIGTÛT PROJECTTO BE TESTED TO EXTEND RESOURCE ESTIMATION

Highlights

- **Eclipse Metals confirms access to 19,000 metres of historical diamond drill core from the Ivigtût project area in Greenland, including 6 holes drilled to a depth of up to 200m within Gronnedal carbonatite REE mineralisation.**

- **The company's access to this drill core will enhance its mineral resource estimation efforts and act as a guide for future drilling within a 3 km by 800 m section of REE carbonatite footprint as well as within the historic Ivigtût mine.**

- **Previous sampling of historical drill core from Gronnedal carbonatite returned high-grade results of up to 22,695 ppm TREO (Total Rare Earth Oxides), with significant europium values (Eu).**

- **Assayed samples of drill core from the large quartz target below Ivigtût pit returned silica ranging up to 99.7% SiO_2.**

- **The historical drill core samples will be exported from a Greenland core-shed to European Laboratory for hyperspectral scanning for elemental analysis, to enhance the existing resource size and better understand the deposit at depth.**

Eclipse Metals Ltd (ASX: **EPM**) (**Eclipse Metals** or the **Company**) is pleased to announce a significant development in its Ivigtût multi-commodity REE Project in southwestern Greenland. The Company has been granted access to 1940s-era archived historical diamond drill core, which has demonstrated high-grade rare earth element (REE) results from initial core samples, as released in November 2021.

Core trays carrying about 2,500 metres of the archived drill core from Ivigtût and Gronnedal are in preparation for export from Greenland for comprehensive analytical assessment by a European Laboratory.

This strategic access will enable Eclipse Metals to minimise the costly process of extensive diamond drilling to increase the current mineral resource estimate (MRE) within Gronnedal and allow it to better plan future drilling programs focusing on the 3 km by 800 m section of REE-bearing ferrocarbonatite and the polymetallic Ivigtût pit. Historical holes at Gronnedal were originally drilled to explore magnetite deposits on contact zones of later intrusive dolerite dykes but also intersected carbonatite carrying light and heavy REE.

Modelling of historical exploration data from the Ivigtût cryolite deposit indicates the presence of a 220 m-wide and 90 m-thick cylindrical body of high silica grade, low-impurity quartz below the pit floor as defined by historical drilling (Figure 6). Laboratory analysis of quartz samples determined it can be further purified with a simple acid wash process to substantially increase the grade to 99.9% SiO2. By removing impurities, this has the potential to make this quartz suitable for the high-tech semiconductor industry, further enhancing the value of this industrial mineral project (Figure 7).

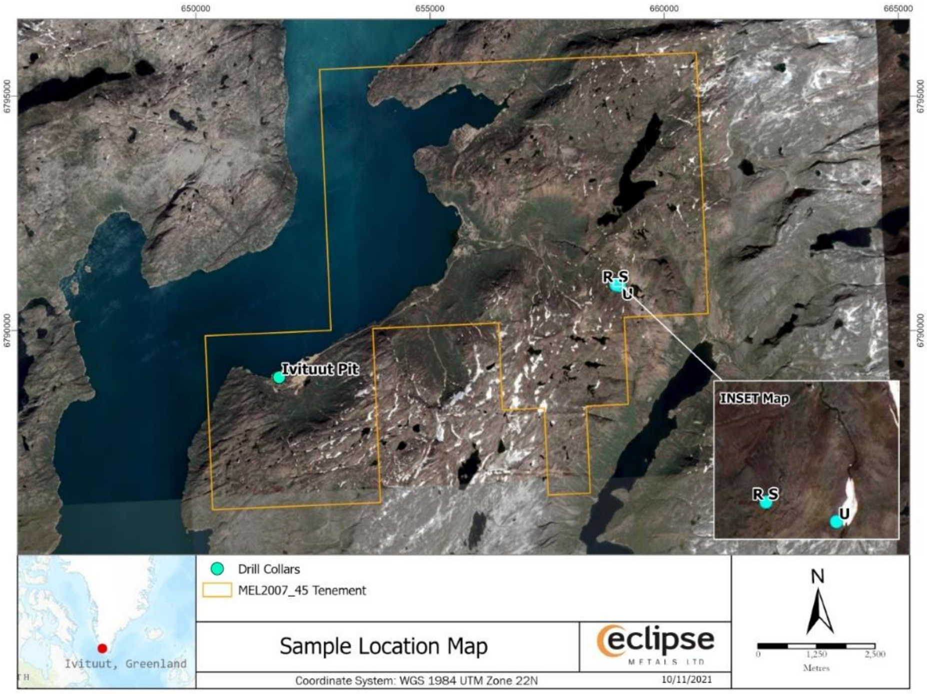

Figure 1: Eclipse Metals' location map for its MEL2007-45 tenement, showing the historical Ivigtût mine and the Gronnedal prospect, with an inset map that highlights the location of three historical drill holes.

Gronnedal REE Carbonatite

Recent work on Eclipse Metals' Gronnedal rare earth prospect has demonstrated extensive potential for a large mineralised system. Recent findings, including the Gronnedal mineral resource estimate, suggest that rare earth mineralisation extends over a 5 km by 2 km area, with an initial exploration target focusing on a 3 km by 800 m section of ferrocarbonatite. This mineralisation with the presence of significant deposits of rare earth elements, including notably high ratios of neodymium (Nd) and praseodymium (Pr), positions Eclipse's Ivigtût Project as a potentially vital contributor to the global supply chain of these critical elements within the European territory.

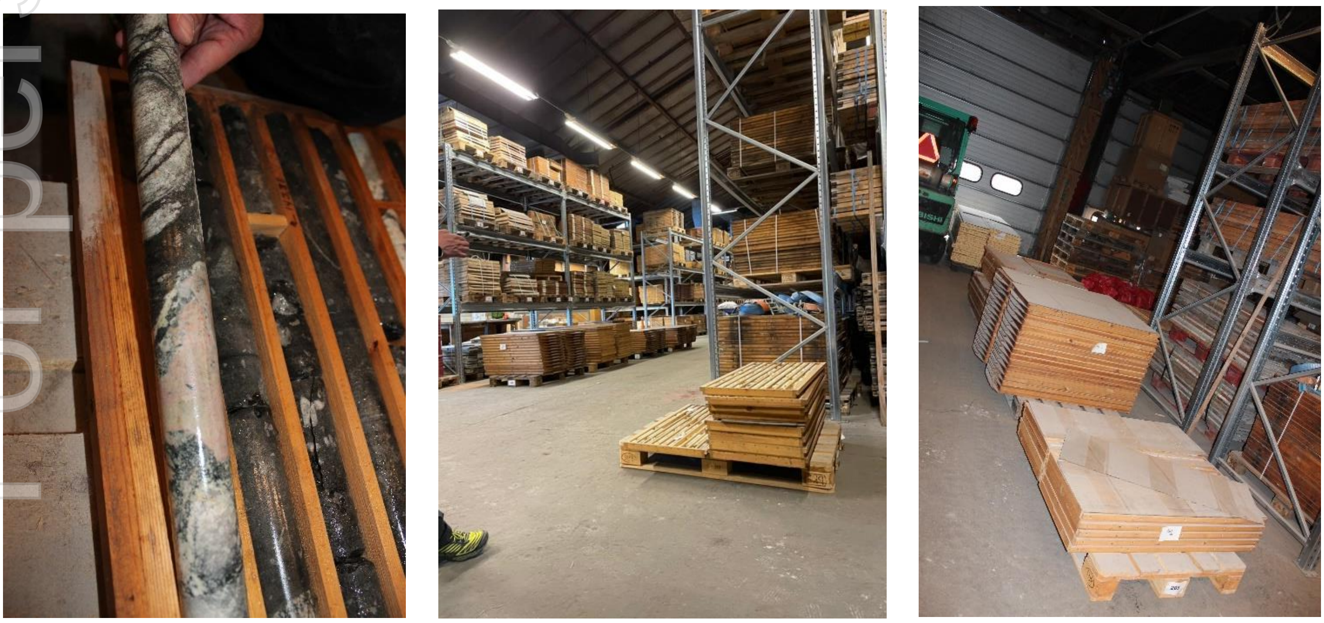

Figure 2: Eclipse Metals will export sections from these pallets of Gronnedal and Ivigtut core drilled in the 1940s from storage in Greenland to a European Laboratory to use in upgrading its rare earth and quartz resource.

Selected rock-chip samples of core from three of the diamond-cored holes drilled in the Gronnedal carbonatite complex in the 1940s returned very significant analysis for rare earth elements with up to 22,695ppm total rare earth oxides (sample IVT 21 – 3) (Figures 3 and 4), *(ASX announcements 15 and 22 November 2021)*.

Eclipse is now planning to utilise a recently developed, non-destructive procedure to analyse drill core with a cost-effective hyperspectral scan method in Europe. This not only represents substantial future cost-saving but accelerates the timeline for a potential extension of the Gronnedal MRE announced in February 2024, which reported 1.18 million tonnes to a depth of only 9.5 m. The five historical drill holes to be tested range in depth from 58 to 201 m; much deeper than drilling results utilised in the recent MRE.

Recent findings at Gronnedal indicate a large ferrocarbonatite footprint which is significantly mineralised with rare earth elements, including notably high ratios of neodymium (Nd) and praseodymium (Pr) magnetic REE. The grade range for the 3 km by 800 m footprint comprises a notable proportion of magnet REE (neodymium and praseodymium,dysprosium, and terbium), which has the potential to be competitive with other REE projects globally. This positions Eclipse's Ivigtût project as a potentially vital contributor to the global supply chain of these critical elements.

Figure 3: Sample IVT 21 – 1, carbonatite and magnetite from 71.73 metres deep, with 3670 parts per million niobium (5248 ppm Nb2O5).

Figure 4: Gronnedal Sample IVT 21 – 4 of carbonatite, and magnetite with 176 parts per million europium (203.8 ppm Eu_2O_3) from 2.8 metres.

Overall, testing of the large carbonatite deposit with outcropping REE mineralisation confirms there is excellent REE potential from the surface in Gronnedal. The REE prospectivity fits well with Eclipse's mission to excel in the commercialisation of metals and minerals demanded in the production of green energy and as required by industry to reduce pollutants usage.

Ivigtût Mine, Quartz Deposit

Samples from a historical vertical diamond drill hole intersecting a large body of quartz below the Ivigtût cryolite pit, returned high grades of up to 99.7% SiO2 (silica) plus, unexpectedly, significant values for rare earth elements (Figures 6, 7 and 8).

The primary aim of Eclipse Metals' Ivigtût exploration effort is to establish a JORC-compliant MRE for the quartz body below the cryolite pit.

Earlier chip samples of quartz returned assays of 99.7%, 99.39%, 99.65% and 99.12% SiO_2. A sample from the Ivigtût pit environment also returned a high tin of grade of 3.54% Sn.

Figure 5: Quartz sample from an Ivigtût prospect that grades 99.7% silica, Sample IVT 21 – 5 from 42.18 metres.

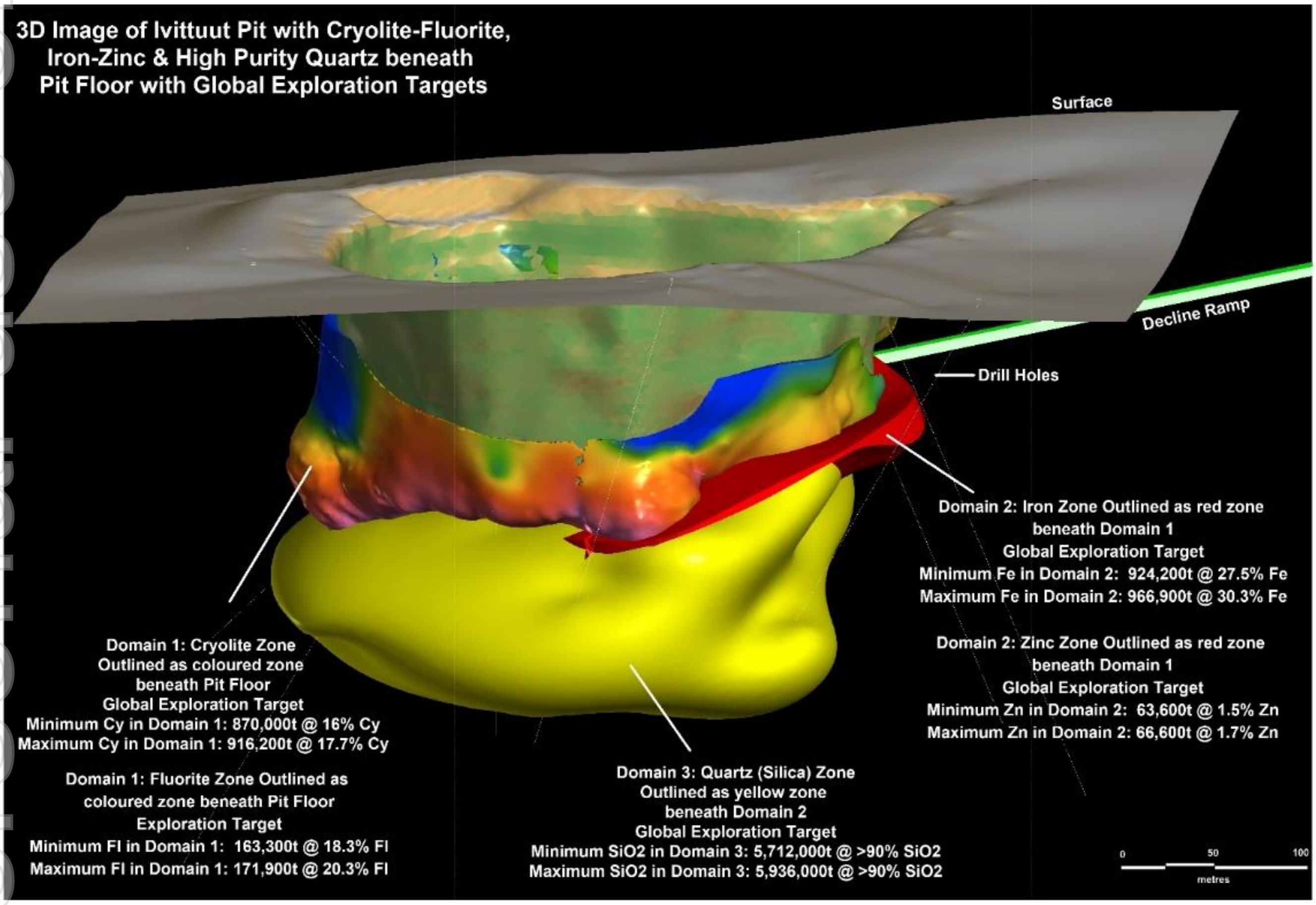

Figure 6: 3D oblique image of interpreted zones of cryolite and iron, and a high-grading silica quartz domain below.

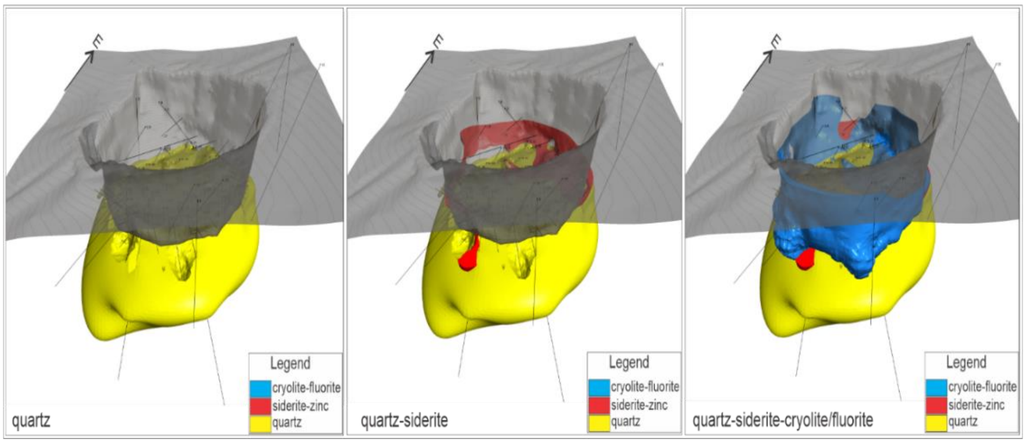

Figure 7: Oblique views of the Ivigtût geological model, showing zones of cryolite-fluorite, siderite-zinc, and quartz

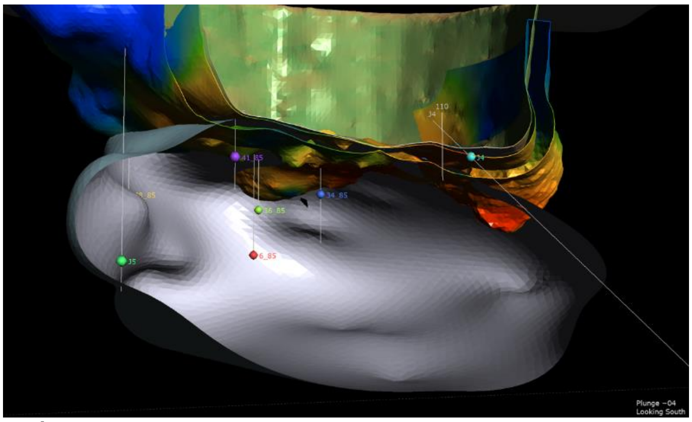

Figure 8: Ivigtût pit 3D projection shows diamond drill holes, flagging their IDs and intersections in and below the previously operating mine's historic pit.

The Company had previously gained access to core from historic exploration drillhole A (502.6m) held in an archive in the Copenhagen National Museum, which was drilled vertically into the centre of the Ivigtût multi-commodity deposit in Greenland in 1948 (Figure 9) *(refer to ASX announcement 20 April 2023)*. This has provided new insights into the Ivigtût polymetallic mineralisation. Portable X-ray fluorescence analyser (pXRF) analysis of this core has detected gold, silver, bismuth, tin and tungsten within the iron-zinc ± copper zones, warranting further investigation. This core will also be shipped to a European laboratory for hyperspectral analysis. Core from other drill holes in the pit zone have previously returned maximum assay values of 1.7% Cu, 18.2% Zn and 7.7% Pb.

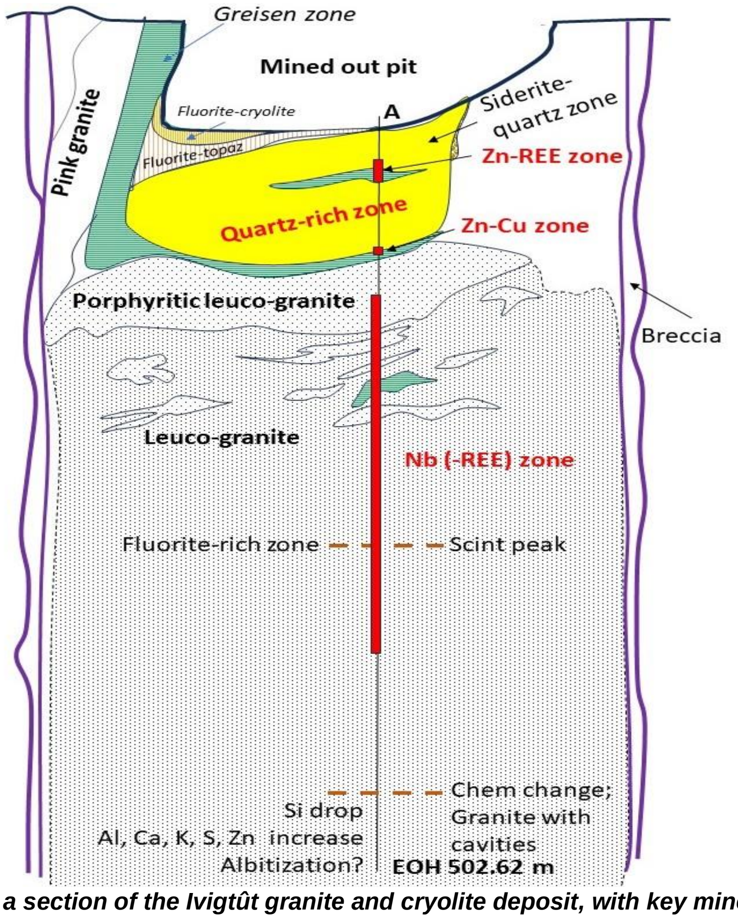

Figure 9: Modified depiction of a section of the Ivigtût granite and cryolite deposit, with key mineralisation flagged – the granite is open at depth, widens towards north and may be a small apophysis from a larger granite massif – with the imagery building on historical depictions by Bøggild (1950) and Pauly & Bailey (1999).

Historical exploration, mining records and feasibility studies indicate the potential for rapid development and production of cryolite, fluorite, quartz, REE, carbonate, zinc, and siderite mineralisation at Ivigtût.

Eclipse Metals is committed to the responsible and sustainable advancement of Ivigtût project. The Company's approach aligns with its dedication to environmental stewardship and the pursuit of green energy solutions. With the anticipated analytical results from the European Laboratory, Eclipse looks forward to further delineating the project's rare earth and quartz potential and reinforcing the organisation's commitment to becoming a leading supplier of metals and minerals used in the green energy industry.

EU Strategic Project Application

Eclipse Metals is pleased to advise that the Company is preparing an application for funding support under the European Union Critical Raw Materials Act (CRMA) for Strategic Project development. The Ivigtût polymetallic critical minerals project is a perfect strategic fit within Greenland and within reach of Europe, providing substance to strengthen Eclipse's application. The Company's current standing as a member of the European Raw Material Alliance (ERMA) further bolsters Eclipse's confidence in its potential to secure Strategic Project status.

The EU aims to secure a reliable and sustainable supply of critical raw materials. These materials are crucial for strategic sectors such as the net-zero industry, digital technology, aerospace, and defence. Strategic projects, as defined by the new CRMA, contribute to achieving this objective. When a project is recognised as strategic by the European Commission (EC), it benefits from streamlined permitting procedures and improved access to financing.

Strategic projects designated under the European CRMA aim to enhance the EU's capacity to extract, process, and recycle strategic raw materials. Eclipse's efforts can contribute significantly to securing the union's supply of strategic raw materials, of which the Ivigtût mineralised domain and the Gronnedal REE deposit could become a key provider.

Work on Eclipse's Ivigtût Strategic Project application will continue until August 2024. Eclipse expects to receive an outcome from the European Union later in the calendar year 2024.

Authorised for release by the Board of Eclipse Metals.

Carl Popal
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 (announcements). Eclipse confirms that it is not aware of any new information or data that would materially affect the information included in the announcements, and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not changed materially.

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.