

29 October 2021

## **Quarterly Activities Report and Appendix 5B** **For the Quarter ending 30 September 2021**

### **IVITTUUT PROJECT- GREENLAND**

#### **ECLIPSE ADVANCES DEVELOPMENT PLAN FOR THE WORLD'S LARGEST CRYOLITE MINE WITH REE POTENTIAL**

Eclipse Metals Ltd (ASX: **EPM**) (**Eclipse Metals** or the **Company**) is pleased to report its activities for the quarter ending 30 September 2021.

Eclipse acquired mineral exploration licence, MEL2007-45, in Greenland in January 2021. The project area hosts the historic Ivittuut cryolite mine and undeveloped mineral resources, including a large REE-bearing carbonatite deposit. Over 120 years between 1865 and 1985, the Ivittuut mine produced 3.8 million tonnes of high-grade cryolite for use in the aluminium industry, from the world's largest known minable resource of naturally occurring cryolite .

During and after the quarter, Eclipse has continued to make progress in understanding the Ivittuut's quartz, cryolite and siderite mineralisation and potential for the Gronnedal-Ika carbonatite complex to host REE.

Eclipse has received an initial batch of samples from historical drill-core from Ivittuut and Gronnedal-Ika and submitted these to Perth-based laboratories for comprehensive chemical analysis (ASX announcement 7 October 2021).

Historical drill core from Ivittuut and Gronnedal-Ika had been stored in a Greenland Government facility in Kangerlussuaq approx. 320km north from the capital Nuuk. The Company collected samples for preliminary testing and in due course plans to cut and assay all the core utilising appropriate QA/QC protocols.

This initial assessment of the core provides a greater understanding of quartz, cryolite and siderite mineralisation within the pit environ and a preliminary understanding of the Gronnedal-Ika carbonatite complex located less than 10km from Ivittuut and only 5km from the port of Gronnedal (Refer to Figure 1). A further surface sampling program has been conducted and additional samples are expected to be despatched in November 2021.

#### **ECLIPSE METALS LTD**

Level 3, 1060 Hay Street, West Perth WA 6005  
T: +61 8 9480 0420 | F: +61 8 9321 0320  
ABN 85 142 366 541

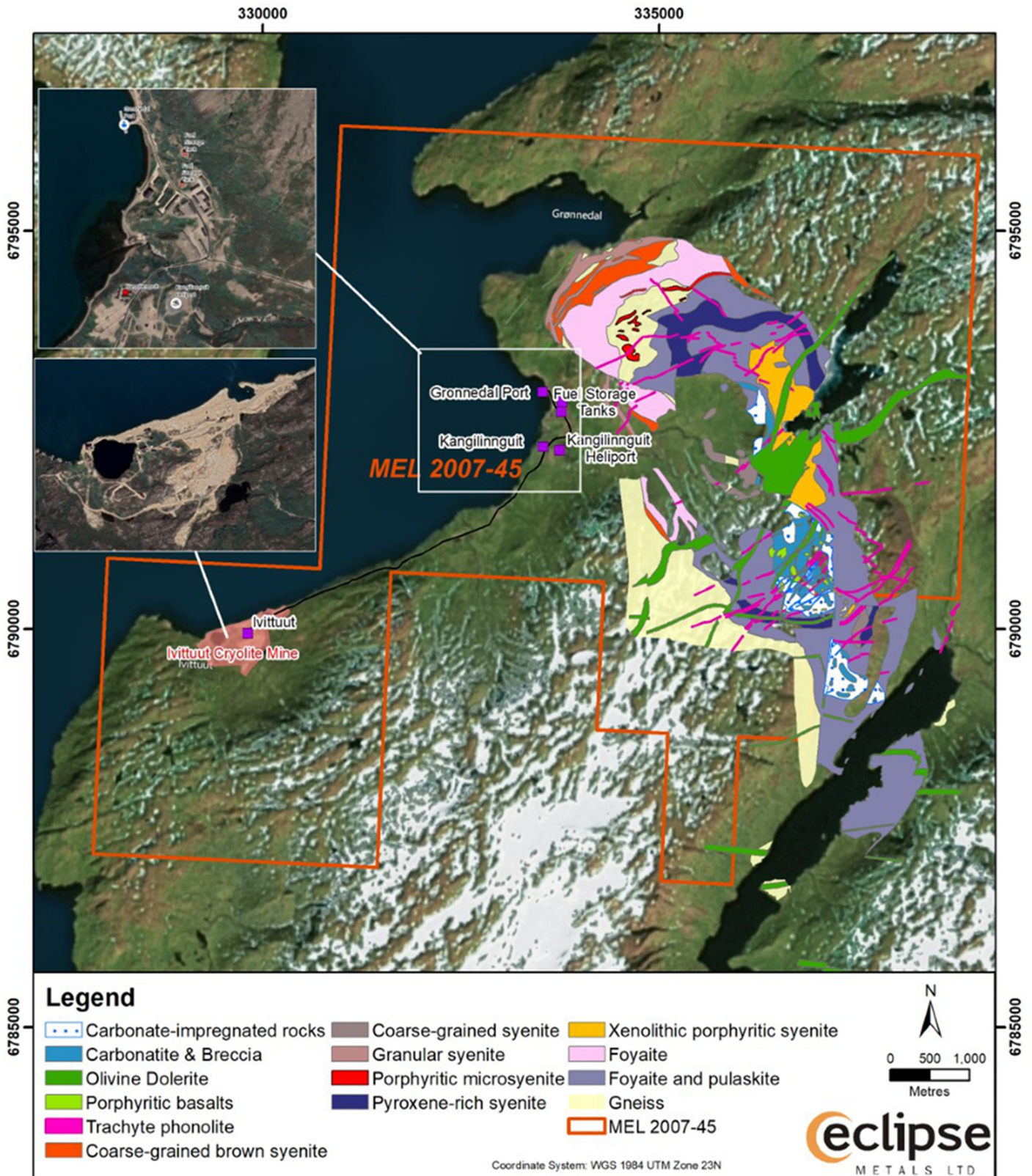
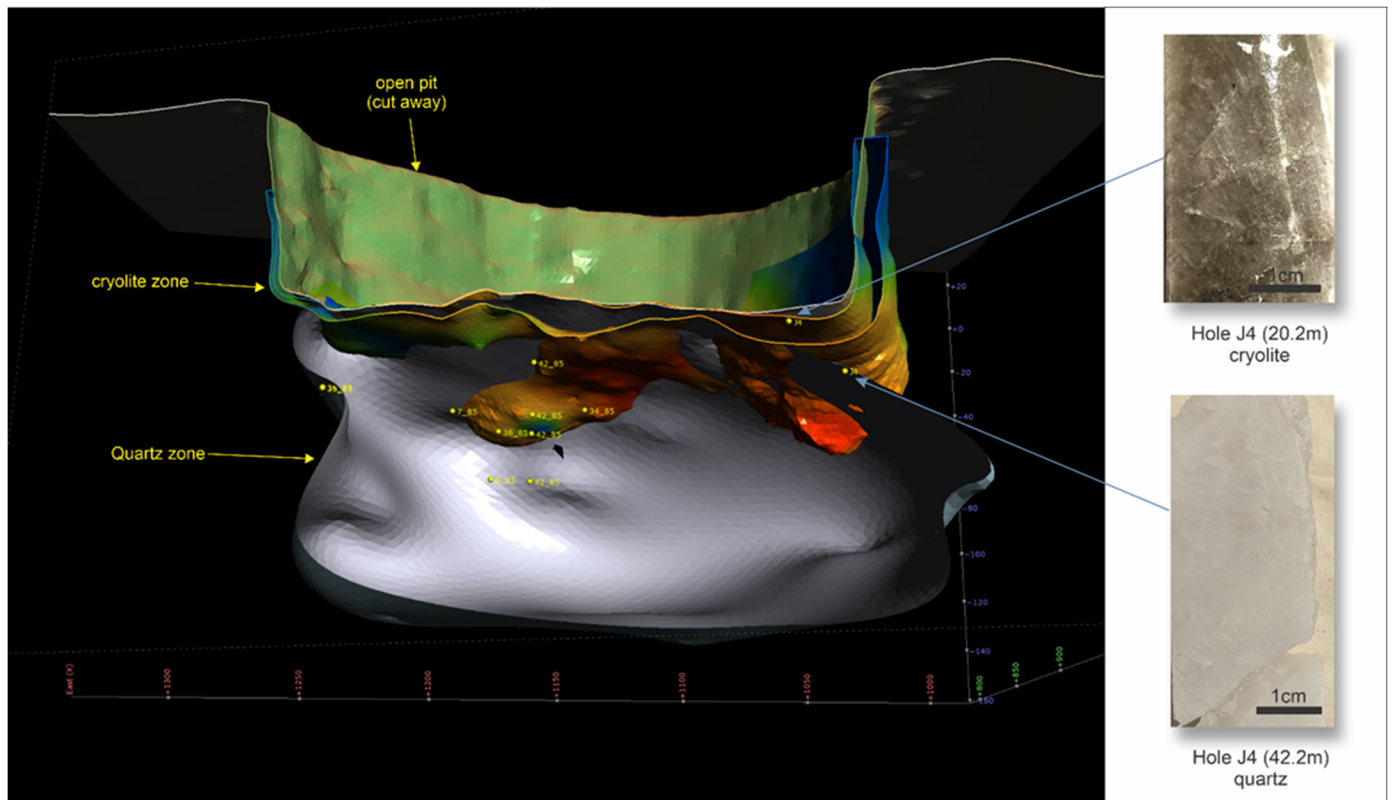


Figure 1. – Gronnedal-Ika Geology map showing Carbonatite and Intrusive Dykes.

The Company has plotted the drill core samples received recently in the 3D resource model of the pit precinct (refer to Figure 2). As previously announced to ASX on 3 March 2021, the quartz zone forms a flat, roughly circular intrusive body 220m in diameter with a thickness of approximately 90m. The modelled domain represents in-situ mineralisation that could be accessed 5m to 10m below the central cryolite-fluorite zone. Immediately below the open pit, the quartz domain bulges out to the east and west.



**Figure 2: Figure 2. Drill core sample ID's plotted within pit environ received from Greenland**

Of particular interest to Eclipse is the carbonatite intrusive where historical exploration has identified anomalous rare earth element content in dolerite dykes intruding the carbonatite.

Results will be announced in due course, however, due to high demand from mineral exploration in Australia, it is unclear when they will be available.

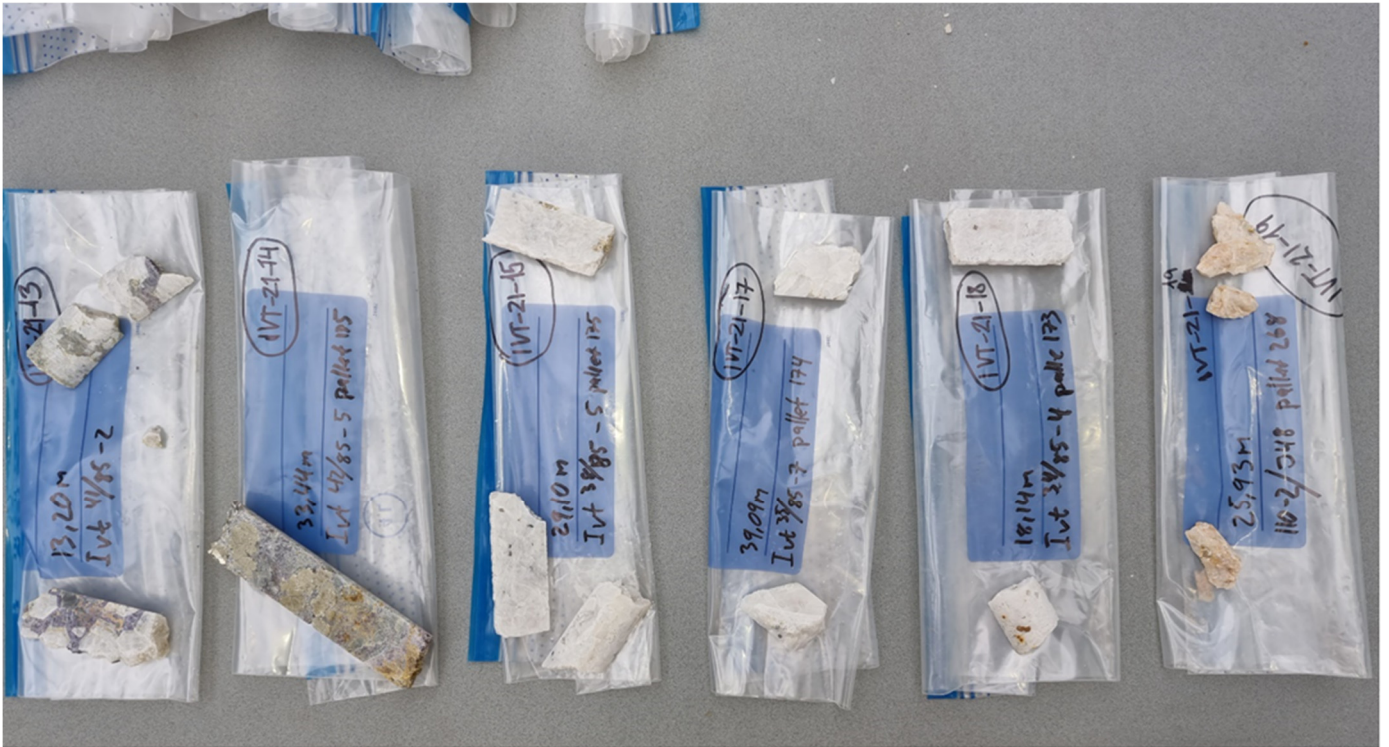


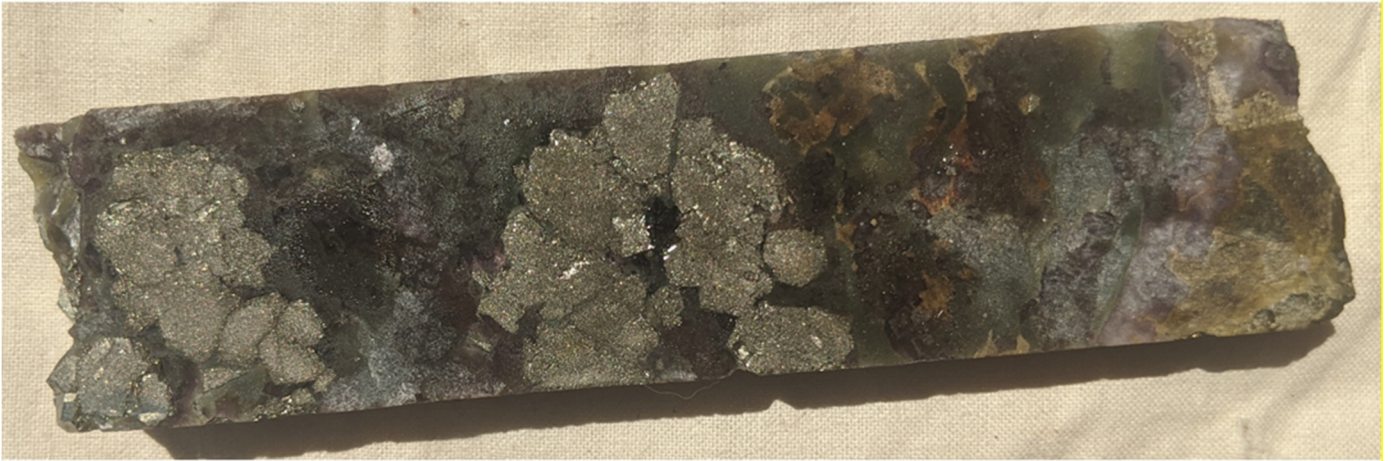
Figure 3: Core Samples received from Greenland



Figure 4: Sample IVT-21-6 of Cryolite from 20.15m.



Figure 5: Sample IVT-21-5 of Quartz from 42.18m



**Figure 6: Sample lvt-21-14 of pyritic fluorite from 33.44m**

Dispatch of the samples to Perth for testing follows preliminary examination of the historical drill core by Eclipse Metals Greenland office administrator and a consulting geologist (ASX announcement 13 August 2021). The core was in good condition and well catalogued, enabling Eclipse personnel to readily identify the drill holes of initial interest and collect samples from selected sections for analysis in Perth.

Six diamond holes with a combined length of 750m were drilled over 50 years ago within Gronnedal-Ika carbonatite intrusive and much of the core remains uncut and untested.

The Company has identified the potential for untapped rare earth, high-grade quartz, cryolite, siderite, sphalerite and carbonate material at the Company's Ivittuut project. This area has not been systematically explored for other commodities, including REE mineralisation of the carbonatite complex, which has been well noted in academia (Goodenough, 1997).



**Figure 7. Drill core located in Greenland Government facility in Kangerlussuaq (Sondre Stromfjord)**



*Figure 8. Historical drill core from the Grønnedal-Ika carbonatite.*

## GRONNEDAL-IKA CARBONATITE COMPLEX

The Grønnedal-Ika carbonatite, nepheline syenite complex and later dolerite dykes are intruded into crystalline Archean basement rocks centered on 48°03'W: 61°14'N, about 10km to the northeast from Ivittuut.

The drill holes examined during the first visit were originally sited to obtain samples of nepheline syenite for ceramic manufacture but intersected contact areas of later olivine dolerite dykes carrying magnetite.

REE occurs throughout the carbonatite complex, especially in late-stage veins where it occurs as various strontium REE carbonate minerals. Europium (Eu) has been recorded from the whole intrusion with several times greater than average for rocks elsewhere in the Gardar Province and many times more than normally found in carbonatite. Minerals identified within the complex include apatite, monazite, stronianite and synchysite, which host LREE, as well as zircon and monazite, which host HREE (LREE = light rare-earths. HREE = heavy rare-earths). Carbonate rock from this complex could provide a neutralising agent for mine and process water for other operations in the region.

Further details of samples and laboratory analyses will be provided in due course. Analysis of geophysical data from surveys over Grønnedal-Ika carbonatite/dyke geological units have confirmed these formations to be far more extensive than previously known, which is further encouragement for potential REE and sulphide mineralisation. The Dighem survey defined seven conductive targets which are recommended for follow up exploration and ground truthing.

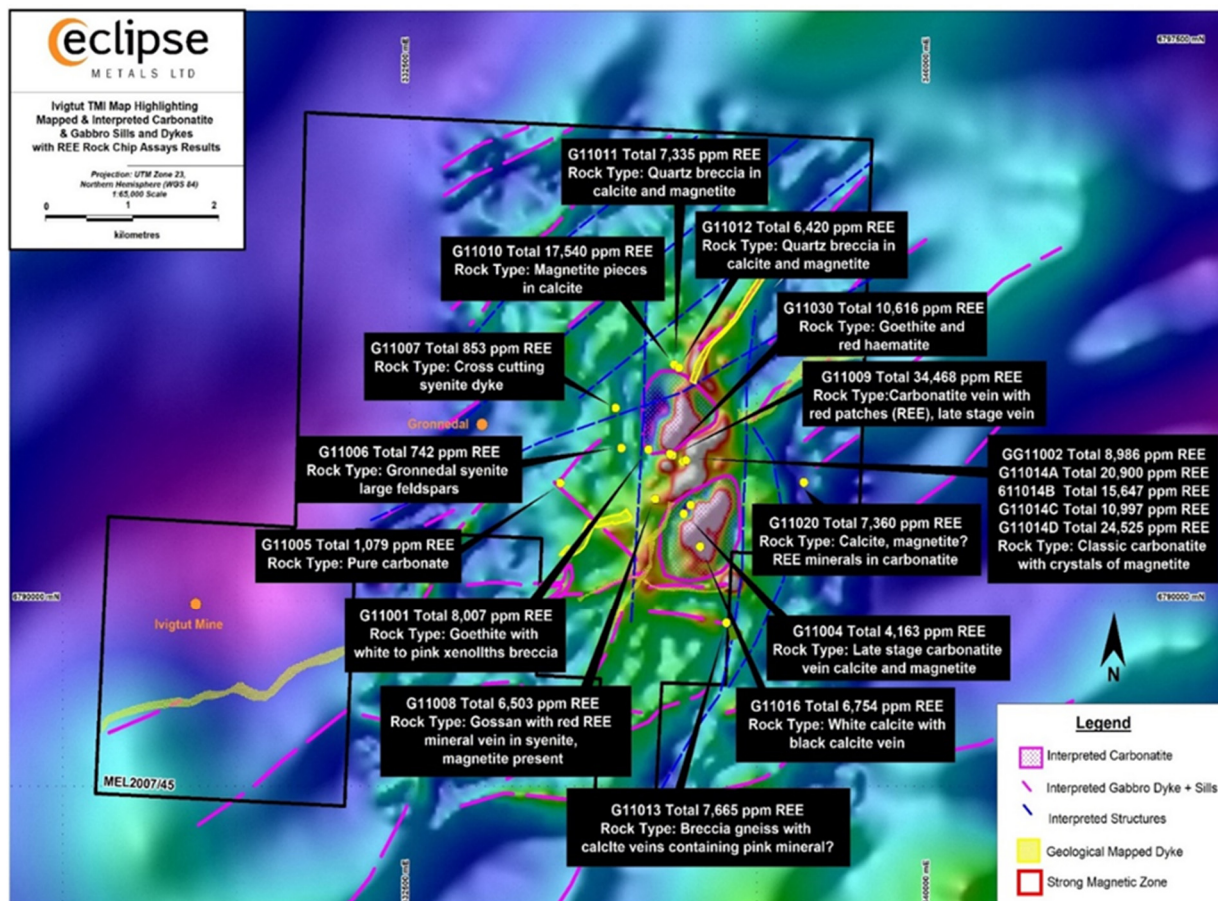


Figure 9: Rock Chip Location highlighting strong REE mineralisation with the TMI Images in the background (refer ASX release 2/3/2021)

### GREENLAND GOVERNMENT APPROVES IVITTUUT FIELDWORK PROGRAMME

Eclipse announced it has received Greenland Government approval for an initial fieldwork programme at the Ivittuut Project (ASX announcement 7 July 2021).

Eclipse acquired the Ivittuut project in January 2021, and in May 2021 the Company announced it had applied for approval to undertake an initial fieldwork programme on exploration licence MEL2007-45.

Eclipse has received formal approval to conduct field-work from the Greenland Mineral Licence and Safety Authority. This approval will enable Eclipse Metals to assess access, ground conditions and confirmation of geological features at Ivittuut.

Eclipse’s approved programme of work at Ivittuut will include field assessment, general inspection and familiarisation by the new field team. This programme was initiated late in October with sampling of the existing mullock heaps and sampling geological bulk intrusions. This appraisal will pave the way for further test-work to facilitate the calculation of a JORC-compliant mineral resource estimate and project feasibility study.

### FORWARD STRATEGY

This initial evaluation of drill core has provided additional significant information on the prospectivity of the carbonatite occurrence and mafic dykes which will save considerable future costs in delineating this REE deposit.

Eclipse's field team is preparing to dispatch surface samples from Gronnedal-Ika carbonatite and from the Ivittuut mullock dumps to Australia or other locations for laboratory analysis for REE elements, cryolite and quartz. The Company will announce progressive results from testing in due course.

Given the continued advancement of the Greenland development plan, the Company is continuing to review its asset portfolio to assess ways to best extract value from its projects for shareholders, including a potential repositioning of assets to ensure an appropriate exploration and development focus can be maintained in relation to the Ivittuut Project.

As part of that review, the Company is in early-stage discussions with third parties with respect to potential joint venture partnerships and other opportunities that will further advance our Australian projects and add value for Shareholders. The Company will keep the market updated as these discussions progress.

## ABOUT THE IVITTUUT PROJECT

Ivittuut is located in southwestern Greenland and has a power station and fuel supplies to service this station and local traffic to support mineral exploration. About 5.5km to the northeast of Ivittuut, the twin settlements of Kangilnnguit and Gronnedal, respectively, provide a heliport and an active wharf with infrastructure. The Gronnedal-Ika carbonatite complex is less than 10km from Ivittuut and only 5km from the port of Gronnedal. This complex is also one of the 12 larger Gardar alkaline intrusions in Greenland and is recognised as one of Greenland's prime REE targets by GEUS and Kvanefjeld and Kringlerne (Tanbreez).

## CORPORATE

### Rights Issue of Options

As Eclipse announced to the ASX on 13 September 2021, a non-renounceable entitlement issue of options at an issue price of \$0.002 per Option closed on 10 September 2021 (the Offer). Under the Offer eligible shareholders were able to subscribe for one (1) Option for every ten (10) Shares held by those Shareholders registered as at as at Record Date at an issue price of \$0.002 per Option to raise up to \$382,792 (before costs of the offer), being up to approximately 191,396,017 Options. (ASX announcement 15 September 2021).

The results of the offer were as follows:

	Number of new options	Amount raised
New Options offered under the Offer	191,396,017	\$382,792
New Options subscribed for under the Offer	147,905,270	\$295,811
Number of shortfall Options	43,490,747	\$86,981

To date, 147,905,270 of new Options exercisable at \$0.05 expiring 17 September 2024 were issued and allotted on 17 September 2021 to eligible shareholders. Allocation of the shortfall Options will be at the discretion of the Board and will occur no later than three months from the closing date being 10 December 2021.

### ASX Additional Information

- ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure during the quarter was \$119,000 Full details of exploration activity during the quarter are set out in this report.
- ASX Listing Rule 5.3.2: There was no substantive mining production and development activities during the quarter.
- ASX Listing Rule 5.3.5: Payment to related parties of the Company and their associates during the quarter: \$74,000 cash. The Company advises that this relates to non-executive, executive directors'



fees and consulting fees only. Please see the Remuneration Report in the Annual Report for further details on Directors' Remuneration.

For further information please contact:

**Carl Popal**

Executive Chairman

T: +61 8 9480 0420

**Rod Dale**

Non-Executive Director

T: +61 8 9480 0420

***Competent Persons Statement***

*The information in this report that relates to Exploration Results and Exploration Targets together with any related assessments and interpretations is based on information compiled by Mr. Rodney Dale a Non-Executive director of Eclipse Metals Limited. Mr. Dale 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 has verified the data disclosed in this release and consents to the inclusion in this release of the matters based on the information in the form and context in which it appears.*

**ADDENDUM - ECLIPSE METALS TENEMENT INTERESTS ASX -Listing Rule 5.3.3.**

Mining tenements held at the end of the quarter and their locations are listed below.

**Granted Tenements**

Tenement	Project Name	Commodity	Status	State	Holder	%	Graticular Blocks
MEL2007-45	Ivittuut Project	Cryolite & Rare Earths	Granted	Greenland	Eclipse Metals Limited Greenland	100	50km <sup>2</sup>
EL 24808	Cusack's bore	Uranium	Granted	NT	Eclipse Metals Ltd	100	27
EL 32080	North Ngalia	Uranium	Granted	NT	Eclipse Metals Ltd	100	63
EPM 17672	Mary Valley	Manganese	Granted	Qld	Walla Mines Pty Ltd <sup>1</sup>	100	7
EPM 17938	Amamoor	Manganese	Granted	Qld	Walla Mines Pty Ltd <sup>1</sup>	100	4
EL27584	Devil's Elbow	Uranium, Gold, Palladium	Granted	NT	North Minerals Pty Ltd <sup>3</sup>	100	30

**Tenement Applications**

Tenement	Project Name	Commodity	Status	State	Holder	%	Graticular Blocks
ELA 24623	Eclipse	Cu, Uranium	Application	NT	Eclipse Metals Ltd	100	305
ELA 24861	Lake Mackay	Uranium	Application	NT	Eclipse Metals Ltd	100	50
ELA 26487	Yuendi	Cu, Uranium	Application	NT	Whitvista Pty Ltd <sup>2</sup>	100	320
ELA 31065	Liverpool 1	Uranium	Application	NT	Eclipse Metals Ltd	100	68
ELA 31499	Ngalia 1	Uranium	Application	NT	Eclipse Metals Ltd	100	249
ELA 31500	Ngalia 2	Uranium	Application	NT	Eclipse Metals Ltd	100	250
ELA 31501	Ngalia 3	Uranium	Application	NT	Eclipse Metals Ltd	100	250
ELA 31502	Ngalia 4	Uranium	Application	NT	Eclipse Metals Ltd	100	226
ELA 31770	Liverpool 2	Uranium	Application	NT	Eclipse Metals Ltd	100	50
ELA 31771	Liverpool 3	Uranium	Application	NT	Eclipse Metals Ltd	100	240
ELA 31772	Liverpool 4	Uranium	Application	NT	Eclipse Metals Ltd	100	51
ELA 32077	Central Ngalia	Uranium	Application	NT	Eclipse Metals Ltd	100	195
ELA 32078	Central Ngalia	Uranium	Application	NT	Eclipse Metals Ltd	100	248
ELA 32079	Central Ngalia	Uranium	Application	NT	Eclipse Metals Ltd	100	248

1 Walla Mines Pty Ltd is a subsidiary of Eclipse Metals Ltd

2 Whistvista Pty Ltd is a subsidiary of Eclipse Metals Ltd

3 North Minerals Pty Ltd is a subsidiary of Eclipse Metals Ltd

## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Eclipse Metals Limited

ABN

85 142 366 541

Quarter ended ("current quarter")

30 September 2021

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation (if expensed)	(107)	(107)
(b) development		
(c) production		
(d) staff costs		
(e) administration and corporate costs	(236)	(236)
1.3 Dividends received (see note 3)		
1.4 Interest received	-	-
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (BAS Refund)	43	43
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(300)</b>	<b>(300)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) entities		
(b) tenements	(100)	(100)
(c) property, plant and equipment		
(d) exploration & evaluation (if capitalised)	(12)	(12)
(e) investments		
(f) other non-current assets		

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(112)</b>	<b>(112)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	286	286
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(8)	(8)
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>278</b>	<b>278</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	1,808	1,808
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(300)	(300)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(112)	(1123)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	278	278

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	(4)	(4)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>1,670</b>	<b>1,670</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	1,670	1,670
5.2	Call deposits		
5.3	Bank overdrafts		
5.4	Other (provide details)		
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>1,670</b>	<b>1,670</b>

**6. Payments to related parties of the entity and their associates**

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

**Current quarter  
\$A'000**

74

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments – **Director Fees \$74K**

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities		
7.2 Credit standby arrangements		
7.3 Other (please specify)		
7.4 <b>Total financing facilities</b>		
7.5 <b>Unused financing facilities available at quarter end</b>		
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (Item 1.9)	300
8.2 Capitalised exploration & evaluation (Item 2.1(d))	-
8.3 Total relevant outgoings (Item 8.1 + Item 8.2)	12
8.4 Cash and cash equivalents at quarter end (Item 4.6)	1,670
8.5 Unused finance facilities available at quarter end (Item 7.5)	-
8.6 Total available funding (Item 8.4 + Item 8.5)	1,670
8.7 <b>Estimated quarters of funding available (Item 8.6 divided by Item 8.3)</b>	5
8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:	
1. Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: N/A	
2. Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: N/A	
3. Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answer: N/A	

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 October 2021

Authorised by: The Board  
(Name of body or officer authorising release – see note 4)

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.