

15th November 2021

**ASX Announcement** 

### HISTORICAL SAMPLES FROM THE IVITTUUT PROJECT RETURN HIGH-GRADE RARE EARTH RESULTS

#### **Highlights**

- Eclipse confirms high-grade polymetallic rare earth mineralisation at lyittuut for the first time, with new samples from historical drilling returning results of 536.30 ppm total rare earth elements, 3.54% tin and 3680 ppm tungsten
- Samples of historical drill core from Gronnedal-Ika returned high-grade results of up to 22,695 ppm TREO (Total Rare Earth Oxides) with significant europium values (Eu)
- Samples of quartz core from the lvittuut pit area returned silica analyses ranging from 99.12 to 99.7% SiO<sub>2</sub>
- Maximum uranium value of 24.3ppm out of all results is well below the Greenland Government legislated maximum of 100ppm
- Eclipse is progressing petrological and mineralogical determinations as a guide for future exploration
- Further field sampling program presently in progress

Eclipse Metals Ltd (ASX: **EPM**) (**Eclipse Metals** or the **Company**) is pleased to announce that laboratory analysis of samples from historical diamond drill core from its exploration licence MEL2007-45 in southwestern Greenland, have returned high-grade rare earth results and confirmed the project's potential to contain deposits of high-grade quartz, cryolite, siderite, sphalerite and carbonate material.

Eclipse collected samples from historical drill core stored in a Greenland Government facility in Kangerlussuaq (ASX announcement 7<sup>th</sup> October 2021) for analysis by an Australian laboratory using ME-MS81, ME-ICP06, and ME-XRF26 methods to identify multi-commodity mineralisation within the project area. Very low uranium values ranging from 0.7 to 24.3ppm are well below the Greenland Government legislated maximum of 100ppm

Sample analysis from selected sections of drill core returned significant values for a range of heavy and light rare earth elements (**HREE** and **LREE**) in both the Ivittuut mine precinct and nearby Groneddale-Ika carbonatite area. Core from the Ivittuut mine precinct which contained fluorite yielded a total REO (Rare Earth Oxides) value of 536.6 ppm. This is the first time that REE mineralisation has been confirmed within the Ivittuut mine sequence. Samples from Gronnedal-Ika carbonate returned values up to 22,695ppm total REO.

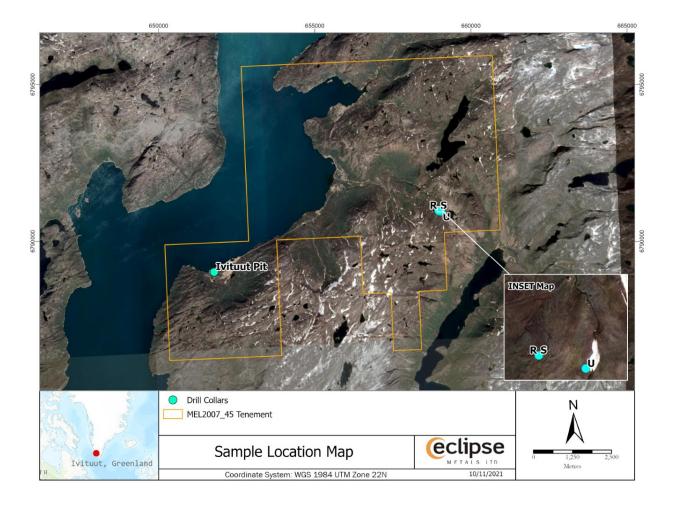


Figure 1: MEL2007-45 with location of Ivittuut Mine and Gronnedal-Ika. Inset shows location of three historic drill holes.

Samples from Gronnedal-Ika and Ivittuut have returned significant analyses for Niobium, Tungsten (W) and Strontium – see Summary table below.

		TOTAL					
SAMPLE	Prospect	REO	W	Nb	U	SrO	F
ID	Name	ppm	ppm	ppm	ppm	%	%
IVT 21 - 1	Gronnadal-lka	8,347.85	3	3670	24.3	1.77	0.391
IVT 21 - 2	Gronnadal-lka	11,088.74	1	9.7	0.95	2.44	0.262
IVT 21 - 3	Gronnadal-lka	22,694.96	2	64.7	2.45	5.67	0.476
IVT 21 - 4	Gronnadal-lka	>21,408.59	1	11.8	5.9	0.43	0.799
IVT 21 - 6	lvittuut	42.88	3	0.4	0.13	0.01	53.1
IVT 21 - 8	lvittuut	96.39	4	143	4.09	0.01	0.338
IVT 21 - 10	lvittuut	206.89	7	0.8	0.28	0.02	16.6
IVT 21 -							
11(1)	lvittuut	536.30	1	4.2	0.36	0.01	0.502
IVT 21 -	1	40.70	15	0.5	40.0F	0.01	0.020
11(2)	lvittuut	16.78	15	0.5	<0.05	0.01	0.839
IVT 21 - 13	lvittuut	72.46	1380	0.7	1.02	0.03	8.1
IVT 21 - 14	lvittuut	77.36	1	0.6	0.14	0.04	12.2
IVT 21 - 15	lvittuut	11.55	2290	0.2	0.4	<0.01	0.044
IVT 21 - 17	lvittuut	1.23	3680	0.2	<0.05	<0.01	0.022
IVT 21 - 18	lvittuut	21.46	7010	0.2	<0.05	<0.01	0.321
IVT 21 - 19	lvittuut	5.37	3630	0.2	0.06	0.01	1.46
IVT 21 - 21	lvittuut	43.03	37	922	1.27	<0.01	0.164
IVT 21 -22(2)	lvittuut	8.75	1	0.7	0.34	<0.01	0.078
IVT 21 - 23	Gronnadal-lka	4,951.32	<1	7.5	0.7	2.01	0.074

Table A. Summary of significant REO and metal drill core assay results.

#### **IVITTUUT SAMPLES**

Samples of diamond drill core from the historical Ivittuut cryolite pit returned high grades of SiO<sub>2</sub> (silica) (Table B) plus, unexpectedly, significant values for rare earth elements. Evaluation of the quartz body below the cryolite pit is a primary aim of exploration. Refer Figure 3 for drillhole locations around the Ivittuut pit.

This area has not been systematically explored for other commodities, including the REE mineralisation of the carbonatite complex, which has been well noted in academia (Goodenough, 1997). At Ivittuut the Company's sampling program was centred on the quartz body below the pit, samples of which returnedassay of 99.7%, 99.39%, 99.65% and 99.12% SiO₂ (Table B).

Both heavy and light rare earth elements were noted in assays from Ivittuut core samples; see Summary Table above.

A sample from the Ivittuut pit environment returned a high Tin of grade of 3.54% Sn.

		ME-ICP06	ME-XRF26
SAMPLE	Prospect	SiO <sub>2</sub>	SiO <sub>2</sub>
DESCRIPTION		%	%
IVT 21 - 1	Gronnadal-Ika	0.39	
IVT 21 - 2	Gronnadal-Ika	0.76	
IVT 21 - 3	Gronnadal-Ika	0.58	
IVT 21 - 4	Gronnadal-Ika	2.17	
IVT 21-5	lvittuut		99.70
IVT 21-6	lvittuut	0.29	
IVT 21 - 7	lvittuut		99.39
IVT 21-8	lvittuut	88.3	
IVT 21 - 10	lvittuut	17.7	
IVT 21 - 11(1)	lvittuut	76.5	
IVT 21 - 11(2)	lvittuut	72.4	
IVT 21 - 12	lvittuut		99.65
IVT 21 - 13	lvittuut	76.3	74.25
IVT 21 - 14	lvittuut	10.25	
IVT 21 - 15	lvittuut	97.3	97.66
IVT 21 - 17	lvittuut	98	99.12
IVT 21 - 18	lvittuut	97.1	96.85
IVT 21 - 19	lvittuut	95.6	95.98
IVT 21 - 21	lvittuut	65.1	
IVT 21-22(2)	lvittuut	92.3	
IVT 21 - 23	Gronnadal-Ika	0.43	

Table B: Drill Core Sample ICP and XRF Analysis for SiO<sub>2</sub>



Figure 2: 99.7% SiO2 in Sample IVT-21-5 of Quartz from 42.18m

#### **GRONNEDAL-IKA SAMPLES**

Samples of core from three of the diamond cored holes drillied in the Gronnedal-Ika 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). These holes were originally drilled to explore for deposits of magnetite (iron ore) which had developed in the contact area of later intrusive dolerite dykes.

The magnetite intersections were shown to be narrow and intermittent but recent sampling has returned very significant analyses of light and heavy rare earthe elements (see Tables A and B)

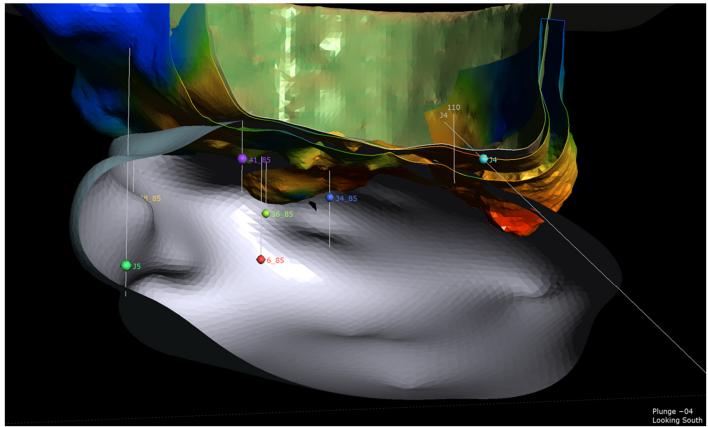


Figure 3: Ivittuut pit cross section showing diamond drill holes ID and intersections in and below the historic pit



Figure 3: Sample (IVT 21-1) magnetite from 71.73ms with 3670 ppm Niobium (5248 ppm Nb<sub>2</sub>O<sub>5</sub>)



Figure 4: Gronnedal-Ika Sample (IVT 21 - 4) carbonatite, magnetite with 176 ppm Europium from 2.8m. (203.8 ppm Eu<sub>2</sub>O<sub>3</sub>)

Eclipse's ASX announcement dated 2 March 2021 described a magnetically anomalous zone identified by the Company's geophysical re-interpretation. Figure 4 below clearly shows the strong correlation between REE mineralisation and magnetic zones - this will be used as the main geophysical tool in exploration for further REE mineralisation.

Historical sampling results also indicate very high europium values compared with other REE deposits. Europium has been recognised throughout the carbonatite intrusion at several times greater concentration than average for rocks elsewhere in this part of Greenland and many times that normally expected in carbonatites. Europium is in extremely short supply around the world.

Overall, the results confirm there is excellent REE potential at the surface in Gronnedal-lka. The REE prospectivity fits well with our mission to excel in the commercialisation of metals and minerals demanded in the production of green energy and required by industry to reduce pollutants. Historical exploration records indicate the potential for rapid development and production of cryolite, fluorite, quartz, REE, carbonate, zinc and siderite.

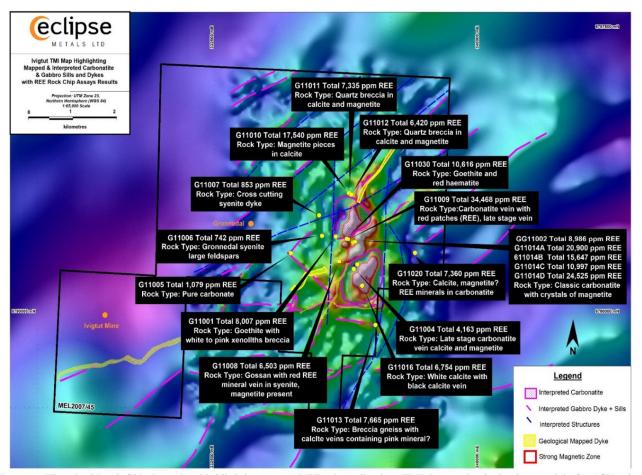


Figure 4: Historical Rock Chip Location highlighting strong REE mineralisation. TMI Images in the background (refer ASX release 2/3/2021). Historical assay results indicate strong correlation of magnetic zone with REE mineralisation

#### **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 Kangilinnguit and Gronnedal, respectively provide a heliport and an active wharf with infrastructure. The Gronnedal-lka 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 the prime REE targets in Greenland by GEUS along with Kvanefjeld and Kringlerne (Tanbreez).

#### **GRONNEDAL-IKA CARBONATITE COMPLEX**

The Gronnedal-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 lvittuut.

The drill holes examined in this first visit were originally sited to obtain samples of nepheline syanite for ceramic manufacture but intersected contact areas of later olivine dolorite dykes carrying magnetite.

REE occurs throughout the carbonatite complex, especially in late-stage veins where it occurs as various strontium REE carbonate minerals.

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 also provide a neutralising agent for mine and process water for other operations in the region.

Analysis of geophysical data from Gronnedal-Ika carbonatite/dyke geological units has confirmed this complex to be far more extensive than previously known which is further encouragement for potential REE and sulphide mineralisation. An historical Dighem survey defined seven conductive targets which are recommended for follow up exploration and ground truthing.

Petrological and mineralogical determinations are continuing and will be used as a guide for future exploration.

#### RECENT EXPLORATION

A recent helicopter borne reconnaissance field program included collection of samples from the Ivittuut mine dumps and the Gronnedal-lka carbonatite intrusive outcrops.

Eclipse's drill core sample analyses has provided additional significant information on the prospectivity of both the lvittuut mine environ and the carbonatite occurrence and mafic dykes. Availability of an extensive core library from this project area will save considerable costs in providing a guide to future drilling to delineate REE mineralisation in this prospect.

Further surface samples from Gronneddal-Ika and from the Ivittuut low-grade tailing dump are being dispatched to Australia for analysis for REE elements, cryolite and quartz. The Company will announce progressive results from testing in due course.

This initial evaluation of drill core has provided significant additional information on the prospectivity of the Gronnedal-Ika carbonatite and mafic dyke occurrence which will save considerable future costs in exploring this REE deposit. Encouraging silica analyses and REE results from the Ivittuut pit environs provide strong enclouragement for future development.

Identification of scarce heavy REE's has cemented the conclusion of the uniqueness of the polymetallic nature of the Ivittuut pit precinct. These results highlight the potential for much of the mineralisation within the pit to have economic value, thus enhancing potential economics for re-development of this mine. Future exploration will include evaluation of the granite and greisen wall-rocks of the pit for REE potential.

The results from Gronnadal-Ika have confirmed the potential for magnetically anomalous zones to be associated with REE mineralization, which will be used as a guide for future exploration drilling. A priority for further examination will be splitting and analysis of samples from core drilled during the 1940s.

#### **FORWARD STRATEGY**

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.

#### Authorised for release by the Board

Carl Popal **Executive Chairman** 

Rodney Dale
Non-Executive Director







#### **Competent Persons Statement**

The information in this report / ASX release 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 report / ASX release of the matters based on information in the form and context in which it appears. Additionally, Mr Dale confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

#### **About Eclipse Metals Ltd (ASX: EPM)**

Eclipse Metals Ltd is an Australian exploration company focused on exploring Southwestern Greenland, Northern Territory and Queensland for multi commodity mineralisation. Eclipse Metals Ltd has an impressive portfolio of assets prospective for cryolite, fluorite, siderite, quartz (high purity silica), REE, 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 Metals Ltd plans to achieve this goal by exploring for and developing viable mineral deposits to generate mining or joint venture incomes.

Table 1: Drill Core Sample Analysis for REE suite of Elements

	Drillhole																		
Prospect	ld	At (m)	Sample No.	Ce	La	Nd	Pr	Sm	Eu	Gd	Tb	Dy	Но	Er	Tm	Yb	Lu	Υ	Total REE
Gronnedal- lka	S	71.73	IVT 21 - 1	3,160	2,010	1,015	314	137	38.3	90.1	9.9	41.1	5.8	10.15	0.89	3.39	0.34	132.5	6968.47
Gronnedal-																			
lka	S	32.81	IVT 21 - 2	3,820	1,685	1,935	485	370	114.5	261	28.1	120	17.4	32	3.02	11.35	1.03	385	9268.4
Gronnedal- Ika	R	169.05	IVT 21 - 3	8,510	6,070	2,520	793	347	98.1	219	23	90.1	11.95	19.4	1.54	5.39	0.5	246	18954.98
Gronnedal-	IX.	109.00	101 21-3	0,510	0,070	2,320	195	J <del>4</del> 1	30.1	213	23	90.1	11.33	13.4	1.04	3.33	0.5	240	10934.90
lka	R	2.8	IVT 21 - 4	7,970	2,830	4,200	>1,000	652	176	362	36	151	21.2	36.1	3.03	10.5	0.89	438	>16886.72
lvittuut	J4	20.15	IVT 21 - 6	14.4	9.4	6.1	1.65	0.94	0.21	0.61	0.08	0.41	0.06	0.16	0.02	0.07	0.01	1.7	35.82
lvittuut	J5	105.44	IVT 21 - 8	26.3	12	13	3.35	2.32	0.52	1.73	0.33	2.57	0.64	2.39	0.51	3.95	0.6	10.3	80.51
lvittuut	85_42	27.15	IVT 21 - 10	15.4	9.3	7.7	2	3.28	0.36	5.74	1.98	16.4	3.57	10.15	1.41	7.43	0.76	84.4	169.88
lvittuut	85 42	48.75	IVT 21 - 11(1)	98.8	42.7	48.9	12.55	17.55	1.47	21.8	4.71	29.1	5.43	15.05	2.2	14.05	1.77	128.5	444.58
lvittuut	85 42	9.8	IVT 21 - 11(2)	5.2	2.7	2.3	0.61	0.42	0.09	0.32	0.07	0.43	0.08	0.23	0.03	0.2	0.02	1.3	14
lvittuut	85_42 85_41	13.2	IVT 21 - 13	5.8	1.4	2.8	0.86	1.67	0.09	2.13	0.07	5.73	1.15	3.46	0.03	3.26	0.02	29.5	59.51
lvittuut	85 42	33.44	IVT 21 - 13	8.2	2.9	4.2	1.11	2.01	0.18	2.13	0.70	7.02	1.13	4.19	0.65	4.01	0.42	24	64.14
lvittuut	85 38	29.1	IVT 21 - 15	1.9	0.8	1	0.27	0.55	0.04	0.53	0.12	0.7	0.13	0.29	0.05	0.37	0.04	2.8	9.59
lvittuut	85 35	39.09	IVT 21 - 17	0.1	0.1	0.1	0.02	<0.03	<0.02	<0.05	0.01	0.08	0.01	0.05	0.01	0.03	0.01	0.4	0.92
lvittuut	85_34	18.14	IVT 21 - 18	7.7	3.7	2.9	0.88	0.81	0.03	0.48	0.06	0.34	0.06	0.13	0.02	0.11	0.01	0.7	17.93
lvittuut	110?	25.93	IVT 21 - 19	0.9	0.2	0.6	0.16	0.27	0.03	0.31	0.1	0.58	0.09	0.23	0.04	0.18	0.02	0.8	4.51
lvittuut	85_9	49.08	IVT 21 - 21	12	5.3	5.3	1.5	0.89	0.18	0.76	0.19	1.61	0.39	1.38	0.25	1.72	0.2	4.3	35.97
lvittuut	85_36	30.23	IVT 21 - 22(2)	2.4	1.1	1.2	0.31	0.22	0.05	0.19	0.03	0.26	0.04	0.15	0.03	0.19	0.02	1.1	7.29
Gronnedal- lka	U	109.03	IVT 21 - 23	1750	1030	671	185.5	113.5	36.6	87.3	10.75	50.1	7.8	15.6	1.5	6.06	0.59	168	4134.3

Note: Samples analysed by the ME-MS81 method, results quoted in ppm Final certified analysis for Pr (praseodymium) sample No. IVT 21-4 not yet received as it is above detection limit.

Table 2: Drill Core Sample Analysis for whole rock suite of Elements

	Drillhole			Jilli Corc	- · · · I			,			<i>J</i>							
Prospect	Id	At (m)	Sample No.	Ва	Cr	Cs	Ga	Hf	Nb	Rb	Sn	Sr	Та	Th	U	V	w	Zr
Gronnedal-				0.31%						_	_							
lka	S	71.73	IVT 21 - 1	BazO	<10	0.15	11.6	0.2	3670	0.4	8	1.77%SrO	5	96	24.3	10	3	4
Gronnedal-				1.15%								2.44%						
lka	S	32.81	IVT 21 - 2	BaO	<10	0.2	19.2	<0.1	9.7	1.8	1	BaO	<0.1	248	0.95	11	1	2
Gronnedal-				1.42%								5.67%						
lka	R	169.05	IVT 21 - 3	BaO	<10	0.16	26.9	0.1	64.7	0.9	1	SrO	0.2	266	2.45	12	2	2
Gronnedal-	_			4.32%		l						0.43%						_
lka	R	2.8	IVT 21 - 4	BaO	10	0.17	32.9	0.1	11.8	6.1	1	SrO	0.1	726	5.9	9	1	2
lvittuut	J4	20.15	IVT 21 - 6	70.3	<10	0.13	0.4	0.1	0.4	1.2	<1	122	<0.1	0.93	0.13	108	3	3
lvittuut	J5	105.44	IVT 21 - 8	154.5	20	0.14	2.3	18.2	143	17.4	3	50.9	8.7	25.5	4.09	44	4	419
lvittuut	85_42	27.15	IVT 21 - 10	65.4	<10	1.58	7.7	0.1	0.8	103	10	160	0.1	5.63	0.28	94	7	2
lvittuut	85_42	48.75	IVT 21 - 11(1)	75.9	10	0.06	1.9	0.1	4.2	4.2	25	125	1	14.75	0.36	<5	1	4
lvittuut	85_42	9.8	IVT 21 - 11(2)	27.2	<10	0.59	2.7	<0.1	0.5	56.2	17	51.8	<0.1	0.67	<0.05	<5	15	<2
lvittuut	85_41	13.2	IVT 21 - 13	7.4	10	1.09	2.1	0.1	0.7	127	15	283	0.3	5.22	1.02	<5	1380	<2
lvittuut	85_42	33.44	IVT 21 - 14	17.2	<10	2.4	13.3	<0.1	0.6	351	23	311	0.1	5.01	0.14	<5	1	<2
lvittuut	85_38	29.1	IVT 21 - 15	1.1	20	0.08	0.8	<0.1	0.2	4.1	1	4.4	0.3	1.24	0.4	<5	2290	<2
lvittuut	85_35	39.09	IVT 21 - 17	1.1	20	0.07	0.4	<0.1	0.2	3.5	<1	3	0.4	<0.05	<0.05	<5	3680	<2
lvittuut	85_34	18.14	IVT 21 - 18	1.3	40	0.1	0.8	<0.1	0.2	14.7	2	8.2	0.5	1.19	<0.05	10	7010	<2
lvittuut	110?	25.93	IVT 21 - 19	1.4	20	0.09	1.1	<0.1	0.2	13	5	46.8	0.4	0.3	0.06	<5	3630	<2
lvittuut	85_9	49.08	IVT 21 - 21	131.5	<10	1.67	35.8	3	922	1335	3.54%	25	57.1	2.55	1.27	8	37	25
lvittuut	85_36	30.23	IVT 21 -22(2)	25.1	20	0.19	1	<0.1	0.7	5.8	18	9.4	<0.1	0.23	0.34	<5	1	<2
Gronnedal-												2.01%						
lka	U	109.03	IVT 21 - 23	1615	<10	0.03	6.3	<0.1	7.5	0.7	19	SrO	0.1	55.9	0.7	<5	<1	<2

Note: Samples analysed by the ME-MS81 and ME-ICP06 methods, results quoted in ppm and %. Sn by ME-MS81h.

Table 3: Drill Core Sample Analysis for whole rock suite of Elements

	B 300 - 1		Tubic 3. 1			Presin	ity sts j	77.200			j = tem						
Prospect	Drillhole Id	From (m)	Sample No.	SiO <sub>2</sub>	Al2O <sub>3</sub>	Fe2O₃	CaO	MgO	Na2O	K20	Cr2O₃	TiO2	MnO	P2O₅	SrO	BaO	
Gronnedal-		, ,	-														
lka	S	71.73	IVT 21 - 1	0.39	<0.01	76.3	4.76	1.96	<0.01	0.02	<0.002	0.01	3.28	0.17	1.77	0.31	
Gronnedal-																	
lka	S	32.81	IVT 21 - 2	0.76	0.26	41.6	15.4	2.25	<0.01	0.05	<0.002	<0.01	1.98	1.49	2.44	1.15	
Gronnedal-																	
lka	R	169.05	IVT 21 - 3	0.58	0.09	29.8	19.65	1.61	<0.01	0.04	<0.002	<0.01	2.27	2.65	5.67	1.42	
Gronnedal-																	
lka	R	2.8	IVT 21 - 4	2.17	0.63	56.7	10.95	0.08	<0.01	0.27	<0.002	<0.01	2.34	8.86	0.43	4.32	
lvittuut	J4	20.15	IVT 21 - 6	0.29	24.5	0.15	0.1	0.01	43.3	0.01	<0.002	<0.01	0.01	0.01	0.01	0.01	
lvittuut	J5	105.44	IVT 21 - 8	88.3	0.43	6.95	0.1	0.03	0.21	0.1	0.002	<0.01	0.2	0.02	0.01	0.02	
lvittuut	85_42	27.15	IVT 21 - 10	17.7	25.4	20.4	13.55	0.18	0.05	1.01	<0.002	<0.01	0.23	0.03	0.02	0.01	
1:44 4			IVT 21 -														
lvittuut	85_42	48.75	11(1)	76.5	0.14	5.62	0.73	0.02	0.01	0.02	0.003	<0.01	0.09	0.02	0.01	0.01	
lvittuut			IVT 21 -														
TVILLUUT	85_42	9.8	11(2)	72.4	1.47	15.3	1.06	0.04	<0.01	0.48	<0.002	<0.01	0.34	<0.01	0.01	<0.01	
lvittuut	85_41	13.2	IVT 21 - 13	76.3	3.54	1.5	12.65	0.12	<0.01	1.16	<0.002	<0.01	0.01	0.01	0.03	<0.01	
lvittuut	85_42	33.44	IVT 21 - 14	10.25	6.32	30.2	18.05	0.12	0.04	2.15	<0.002	<0.01	0.19	<0.01	0.04	<0.01	
lvittuut	85_38	29.1	IVT 21 - 15	97.3	0.07	0.46	0.05	<0.01	<0.01	0.03	0.002	<0.01	0.01	<0.01	<0.01	<0.01	
lvittuut	85_35	39.09	IVT 21 - 17	98	0.07	0.08	0.03	0.01	0.04	0.01	0.005	<0.01	0.01	<0.01	<0.01	<0.01	
lvittuut	85 34	18.14	IVT 21 - 18	97.1	0.32	0.5	0.42	0.01	<0.01	0.13	0.006	<0.01	<0.01	<0.01	<0.01	<0.01	
lvittuut	110?	25.93	IVT 21 - 19	95.6	0.29	0.12	2.01	<0.01	<0.01	0.09	0.003	<0.01	<0.01	<0.01	0.01	<0.01	
lvittuut	85 9	49.08	IVT 21 - 21	65.1	12.2	4.44	0.08	0.04	0.18	9.71	0.002	0.02	0.06	0.01	<0.01	0.02	
1, .:44, 4	_		IVT 21 -														
lvittuut	85_36	30.23	22(2)	92.3	0.19	4.4	0.07	0.01	<0.01	0.05	0.002	<0.01	0.05	0.01	<0.01	<0.01	
Gronnedal-													_				
lka	V	109.03	IVT 21 - 23	0.43	<0.01	28.8	27.1	1.64	<0.01	0.01	<0.002	<0.01	2	0.12	2.01	0.18	

Note: Samples analysed by the ME-ICP06 and ME-XRF26 methods, results quoted in "%"

Table 4A: Drill Collar File Gronnedal-lka

ld	LABEL	LAT	LONG	EASTING m	NORTHING m	RL (m)
1	S	61.22078536	-48.03950844	658970.1419	6790980.731	424
2	R	61.22078536	-48.03950844	658970.1419	6790980.731	424
3	U	61.22056973	-48.03814895	659044.1963	6790960.038	421

Table 4B: Drill Collar File Ivittuut Local Grid

Prospect	Drillhole Id	Easting m	Northing m	AHDRL	Datum	Dip	Azimuth	Depth (m)	Year
lvittuut	J4	983	1098	-58	Local Grid	-90	0	138	1948
lvittuut	J5	1016	1207.5	-7.2	Local Grid	-90	0	115.93	1948
lvittuut	85_5	1143.9	978.1	-64	Local Grid	-90	0	31	1985
lvittuut	85_7	1184.7	907.2	-54	Local Grid	-90	0	33.9	1985
lvittuut	85_9	1121.8	927.7	-59	Local Grid	-90	0	21.2	1985
lvittuut	85_34	1141.4	916.4	-62.4	Local Grid	-90	0	39.7	1985
lvittuut	85_35	1185.9	923.5	-59	Local Grid	-90	0	39.2	1985
lvittuut	85_36	1169.2	911.9	-56.9	Local Grid	-90	0	36.7	1985
lvittuut	85_38	1220.7	942.1	-53.9	Local Grid	-90	0	35.3	1985
lvittuut	85_41	1169.7	1010.2	-62.7	Local Grid	-90	0	24.9	1985
lvittuut	85_42	1157.8	928.3	-59	Local Grid	-90	0	49	1985

# **JORC Code, 2012 Edition – Table 1 report template**

### **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Selected core chips representing different rock types from two areas within the Company's Greenland MEL2007-45.</li> <li>Core chips are from diamond holes drilled in approximately 1940, 1948 and 1985.</li> <li>Samples are not representative of an orebody and were collected for initial geological, petrological and geochemical evaluation.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	Conventional diamond drilling.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>All samples are from holes diamond drilled in 1940, 1945 and 1985.</li> <li>Records of procedures and recoveries not presently available.</li> <li>Full core yet to be re-logged and sampled under controlled conditions.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geologically logged and recorded as a guide for future field work and exploration planning.</li> <li>Logging only qualitative in nature.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Small sections of half core sawn in approx. 1940, 1948 and 1985.</li> <li>Samples not representative of whole mineralisation.</li> <li>Quality control not applicable.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>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.</li> <li>Normal procedure for duplicates and blanks under independent control of laboratory.</li> <li>Determinations for geochemical evaluation only.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Not applicable
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>UTM coordinates for Gronnedal-Ika historical drilling tablulated.</li> <li>Lat / Lon for for local grid at lvittuut mine tablulated.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Not applicable as selected geological and geochemical samples collected to represent different rock types with no resource implication.</li> </ul>

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Not applicable.
Sample security	The measures taken to ensure sample security.	Samples dispatched by secure airfreight 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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>MEL2007-45 granted to Eclipse Metals Greenland (wholly owned subsidiary of Eclipse Metals Ltd) by the Greenland Minister of Finance, Industry and Minerals Resources, as announced to ASX on 17 February 2021</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>19,000m of diamond drill cores stored in government facility yet to be fully logged and re-sampled.</li> <li>Data and results from exploration conducted by other parties is being accumulated and assessed for reporting and as a guide to future exploration.</li> <li>Historical results have been used to prepare preliminary exploration models for planning future activities.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Nepheline syenite and carbonatite intrusion into Archean crystalline basement</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> </ul> </li> </ul>	All available information tabulated within body of report.

Criteria	JORC Code explanation	Commentary
	<ul> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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.</li> </ul>	
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Not applicable
Relationship between mineralisati on widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	Not applicable as no resources estimated.
Diagrams	<ul> <li>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.</li> </ul>	Not applicable
Balanced reporting	<ul> <li>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.</li> </ul>	All analyses reported as received.
Other substantive exploration data	<ul> <li>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.</li> </ul>	All reported as appropriate and references provided to earlier reports.