

2<sup>nd</sup> March 2021

**ASX Announcement** 

# STRONG RARE EARTH MINERALISATION IN GRONNEDAL-IKA AREA GREENLAND PROJECT

## **Highlights**

- Total rare-earth (TREE) of up to 34,400 ppm are recorded from grab samples collected at Gronnedal-lka carbonatite deposit within MEL2007-45 (Table 1). The carbonatite also provides a potential source for carbonate rock as a commercial by-product.
- Europium has been recognised throughout the carbonatite intrusion at several times greater concentration than average for rocks elsewhere and many times that normally expected in carbonatites. Europium is in extremely short supply around the world.
- Extensive faulting and fracturing associated with the intruding carbonatite are considered to have mobilised highly mineralised fluids extending into the surrounding rocks which has implications for further REE enrichment during alteration processes.
- The Gronnedal-lka carbonatite contains the only known accessible source of carbonate rock in Greenland which could be suitable for neutralising acid mine and process water.
- Carbonite products could be readily shipped from available existing wharf infrastructure at Gronnedal.
- Strong correlation between the REE mineralisation and magnetic zones. Assay results
  greater than 4,000 ppm TREE are associated with carbonatites within the magnetic zones
  or lie on the contact edges of the carbonatite unit (Table 1).

Eclipse Metals Ltd (ASX: **EPM**) (**Eclipse Metals** or the **Company**) is pleased to announce the REE laboratory assay results for historic surface samples collected at Gronnedal-lka within its MEL2007/45 licence located in south-western Greenland. The potential for REE mineralisation was not recognised during historical mining which supports increased REE prospectivity. The Company has identified the potential for untapped rare earth, high grade quartz, cryolite, siderite, sphalerite and carbonate material in the Company's lvittuut project.

This area has not been systematically explored for the commercial value of commodities but REE mineralisation of the complex has been well noted in academia (Goodenough, 1997).

## **ABOUT THE IVITTUUT PROJECT**

Ivittuut located in southwestern Greenland, has a power station and fuel supplies to service this station and local traffic and to support mineral exploration. About 5.5 kms 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 lvittuut 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).

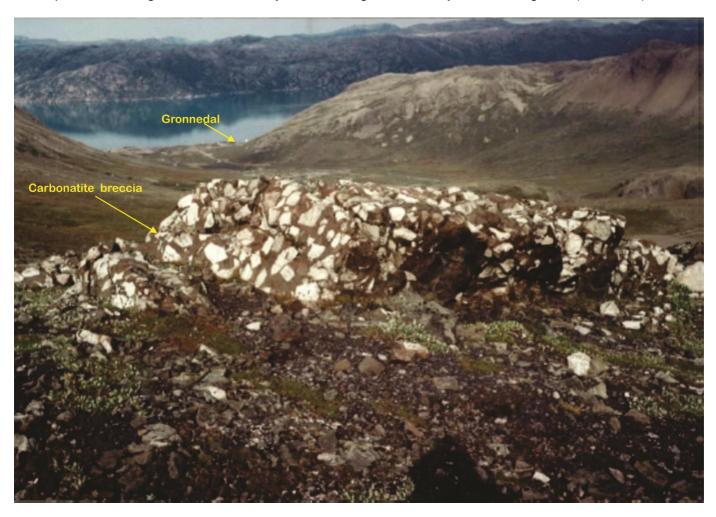


Figure 1: Carbonatite Breccia with large carbonate fragments – Gronnedal settlement in the background

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 – Eu is in short supply around the world.

Minerals identified within the complex include apatite, monazite, stronianite and synchysite which host LREE, as well as zircon a monazite which host HREE. (LREE = light rare-earths. HREE = heavy rare-earths).

## **REGIONAL GEOLOGY**

Ivittuut and Gronnedal-Ika are situated within the alkaline igneous Gardar Province of southwestern Greenland which comprises approximately 12 intrusive igneous complexes including the well-known Kringlerne and Kvanefjeld REE deposits. These were emplaced into Archean gneisses during episodic continental rifting approximately 1300-1140 Mya. Ivittuut consists of an alkali granite stock with a microgranite roof capping of the cryolite orebody, whilst the Gronnedal-Ika complex comprises nepheline syenite with a carbonatite plug. In addition, it has been observed that alkaline intrusives within the Ivittuut area contain a preponderance of heavy REE minerals, suggested to be the result of a potential regional mantle anomaly.

The total assay file of the results is presented in Appendix A.

Table 1: Significant Rock Chip REE Assay Results (Total REE >4,000 ppm)

Sample No	East UTM 84 Zone 23N	North UTM 84 Zone 23N	Description	TOTAL REE
	20116 2314	34 ZONE Z3N		ppm
G11001	335936.173	6792033.106	Goethite with white to pink xenoliths breccia	8,007.8
G11002	336434.592	6791870.391	Carbonatite with crystals of magnetite often preferentially weathered	8,986.81
G11002	330434.332	0731070.331	carbonatte with crystals of magnetic orten preferentially weathered	0,300.01
G11003	337061.994	6789690.225	As above but more carbonate	5,824.33
G11008	336032.817	6791366.747	Gossan with red REE mineral vein in syenite, magnetite present	6,503.62
G11009	336283.427	6791953.670	Carbonatite vein with red patches (REE), late-stage vein	34,468.84
			, , , , ,	
G11010	336307.267	6793173.990	Magnetite pieces in calcite	17,540.68
G11011	336307.267	6793173.990	Magnetite pieces in calcite	7,335.35
G11012	336375.987	6793129.880	Quartz breccia in calcite and magnetite	6,420.9
G11013	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	7,665.94
G11014A	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	20,900.76
				20,000110
611014B	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	15,647.57
G11014C	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	10,997.65
G11014D	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	24,525.83
G11016	336681.667	6790728.545	White calcite with black calcite vein	6,754,87
G11020	338176.343	6791586.930	Calcite, magnetite? REE minerals in carbonatite	7,360.03
G11030	336249.243	6791970.139	Goethite and red haematite	10,616.52

# **Eclipse Metals Ltd Executive Chairman Mr Carl Popal commented:**

"The Ivittuut project continues to show the hallmarks of containing world-class mineral deposits."

These REE results show high europium values amongst other REE, which are in extremely short supply around the world. Many of these samples were collected from the carbonatite in Gronnedal, but the highly altered surrounding rocks also offer excellent mineralisation potential. The results show persistent content of REE.

Gronnedal-lka is known to have the only known carbonatite deposit proximal to existing port facilities within Greenland. The carbonate body of 2km by 1km could provide an ideal lime and limestone product for neutralising acid mine and process wastewater produced by other miners in the Greenlandic region.

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 the industry to reduce pollutants. Historical exploration records indicate the potential for rapid development and production of cryolite, fluorite, quartz, REE, carbonate, zinc and siderite."

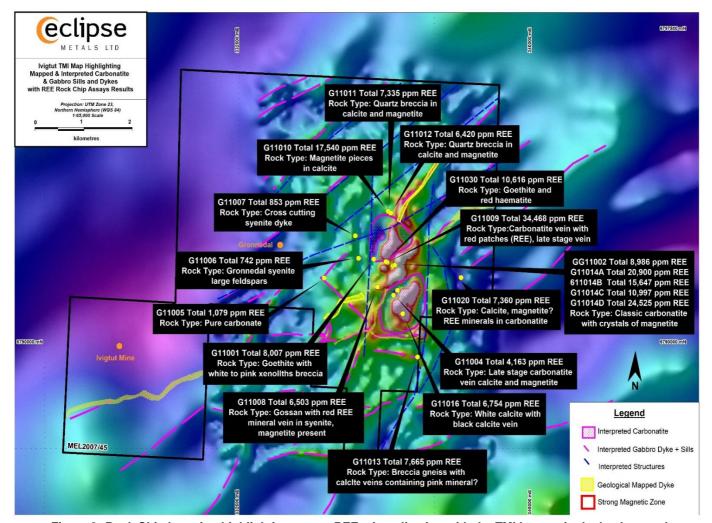


Figure 2: Rock Chip Location highlighting strong REE mineralisation with the TMI Images in the background

## INTERPRETATION OF GEOCHEMCIAL ASSAY DATA

Documented fieldwork confirmed the presence of high-grade rare earth mineralisation over the Gronnedal-lka area. The mineralisation is more widespread than originally believed with significant exploration upside. Samples were collected from both the older syenites and the carbonatites along with late-stage veins and shear zones.

The carbonatite complex contains a series of north-east, south-west trending late-stage dykes. These are potentially major sources of REE. High grade mineralisation is also associated with different geological lithologies which include the carbonatite, brecciated gneiss, calcite veins and magnetite rich zones.

The work also confirmed the whole intrusion contains europium with a peak value of 423 ppm Eu in Sample G11009. Based on the assay results for europium (Eu), the values occurring at Gronnedal-lka are several times greater than the average for rocks elsewhere in the Gardar Province.

Some of the highest mineralisation was related to north-south carbonatite dykes and secondly the recrystallisation on the edge of cross cutting dolerite dykes. These intrusive dykes are characterised by

shearing and fenitisation and can be traced over several kilometres northwards. Other later stage dolerite dykes which have undergone some remobilisation of magnetite also host REE mineralisation.

More late-stage carbonatite dykes and fenites are known within the area but have not been mapped or systematically sampled. These dykes can reach up to 10 metres in width and run for several kilometres in strike.

#### INTERPRETATION OF ASSAY DATA WITH TMI IMAGE

The magnetic zone identified by the Company's re-interpretation work has a strike over 4km with a width in excess of one kilometre. Figure 2 clearly highlights the strong correlation between REE mineralisation and the magnetic zones. Generally, assay results greater than 4,000 ppm TREE are associated with carbonatites within the ovoid shaped magnetic responses or lie on the contact edges of the carbonatite.

#### **FORWARD STRATEGY**

Further work will concentrate on the main geological units such as the fenites, cross cutting carbonatite veins, local variations of the magnetic content and banding within the carbonatite units. A systematic geochemical survey will also be conducted on a close spaced grid for the purpose of defining targets for future drilling.

Radiometric data is sparse but the available traverses show anomalous responses over the carbonatites. As radiometric surveying is an important direct detection tool for REE exploration it is recommended that additional, higher resolution surveys be conducted over the project tenement.

## Authorised for release by the Board

Carl Popal Executive Chairman Pedro Kastellorizos

Non-Executive Director







#### **Competent Persons Statement**

The information in this report that relates to geological and geophysical results together with any related assessments (exploration results) and interpretations is based on information compiled by Mr Pedro Kastellorizos. Mr. Kastellorizos is a Non-Executive director of Eclipse Metals Limited. and is a Member of the AuslMM 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. Kastellorizos have verified the data disclosed in this release and consent to the inclusion in this release of the matters based on the information in the form and context in which it appears.

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

Eclipse Metals Ltd is an Australian exploration company focused on exploring South-western 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.

#### **REFERENCES**

The below documents are all classified as open file report which can be downloaded from the internet

# The following references have been cited in this report: -

G B & Associates, 2011, "Ivittuut Annual Report 2013, Licence No. 2007/45 GEUS Open File Series Report No.22563

Goodenough, K. M. (1997). Geochemistry of Gardar intrusions in the Ivigtut Area, South Greenland. Ph.D. thesis, University of Edinburgh.

## **APPENDIX A:**

# **TOTAL ROCK CHIP ASSAY TABLE**



## **ECLIPSE METALS LTD (ASX:EPM)**

Sample No	Latitude	Longitude	East UTM 84 Zone	North UTM 84 Zone 23N	Description	Y ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	TOTAL REE ppm
			23N																	
G11001	61 13.687	48 3.367	335936.173	6792033.106	Goethite with white to pink xenoliths breccia	121	3700	486	1600	208	58.6	138	15.7	53.9	6.32	13.3	1.03	5.6	0.35	8,007.8
					Classic carbonatite with crystals of magnetite															
G11002	61 13.612	48 2.802	336434.592	6791870.391	often preferentially weathered	219	2200	363	1400	253	63.3	178	19.1	75.6	10	21.3	1.89	9	0.62	8,986.81
G11003	61 12.455	48 1.989	337061.994	6789690.225	As above but more carbonate	322	2200	326	1400	208	69.6	198	24.1	115	15.7	31.2	2.63	11.2	0.9	5,824.33
G11005	61 13.412	48 4.760	334666.043	6791581.515	Oldest syenite	122	400	44.8	200	26.9	4.35	20	3.7	23.9	4.52	13.8	2.05	12.3	1.77	1,079.86
G11003	01 13.112	10 11700	33 1000.013	0731301.313	oldest syemice	122	100	11.0	200	20.5	1.55	20	3.7	23.3	1.32	15.0	2.03	12.5	1.77	2,073.00
G11006	61 13.688	48 3.803	335546.000	6792053.253	Gronnedal-lka syenite large feldspars	38.4	300	28.6	200	22.9	7.24	17.8	2.88	14.2	2.08	4.7	0.51	2.8	0.37	742.48
G11007	61 13.976	48 3.922	335464.660	6792592.500	Cross cutting syenite dyke	34.2	300	46.9	200	24.5	7.69	17.4	2.61	11.2	1.72	4	0.42	2.2	0.23	853.07
G11008	61 13.331	48 3.224	336032.817	6791366.747	Gossan with red? REE mineral vein in syenite, magnetite present	178	2600	427	1600	285	85.6	205	21.2	71.9	7.87	14.2	1.02	6.4	0.43	6,503.62
G11009	61 13.653	48 2.975	336283.427	6791953.670	Carbonatite vein with red patches (REE),	476	14500	2100	9000	1530	423	886	108	339	30.2	54.9	3.11	18.6	0.03	34,468.84
011003	02 20:000	10 2.575	5502051127	07525551070	· ·		1.500	2100	3000	1550	.20	000	100	000	55.2	55	0.11	10.0	0.00	,
G11010	61 14.310	48 3.012	336307.267	6793173.990	Magnetite pieces in calcite from old 1948 drill hole	118	8200	853	2500	208	52.1	116	14.8	48.5	6.32	15.4	1.23	6.7	0.63	17,540.68
C11011	61 14.310	48 3.012	336307.267	6793173.990	Magnetite pieces in calcite from above the drill hole	215	2900	431	1800	333	95.9	214	21.5	80.2	10.3	21.5	1.9	10.2	0.05	7 225 25
G11011	61 14.310	48 3.012	336307.267	6/931/3.990	driii noie	215	2900	431	1800	333	95.9	214	21.5	80.2	10.3	21.5	1.9	10.2	0.85	7,335.35
G11012	61 14.288	48 2.933	336375.987	6793129.880	Quartz breccia in calcite and magnetite	244	2500	409	1600	313	94.2	207	22.4	89.8	11.2	20.8	1.54	7.5	0.46	6,420.9
C11013	61 13.622	40.2.755	336477.490	6791886.980	Breccia gneiss with calcite veins containing	275	2900	400	1000	366	100	243	26.2	102	12.7	22.7	1.60	8.1	0.45	7,665.94
G11013	01 13.622	48 2.755	3364/7.490	0/91886.980	pink mineral	2/5	2900	499	1900	300	108	243	26.3	102	12.7	23.7	1.69	8.1	0.45	7,005.94
G11014A	61 13.622	48 2.755	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	538	9000	1300	4900	752	215	481	70	253	24.3	46	3.42	17.3	0.74	20,900.76
611014B	61 13.622	48 2.755	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	191	7300	918	3000	361	72	199	18.8	57.6	6.69	15.4	1	6.5	0.58	15,647.57

## **ECLIPSE METALS LTD**

Sample	Latitude	Longitude	East UTM	North UTM	Description	Υ	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Но	Er	Tm	Yb	Lu	TOTAL
No			84 Zone 23N	84 Zone 23N		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	REE ppm
G11014C	61 13.622	48 2.755	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	508	4300	657	2600	491	149	331	51.6	218	23.7	47.1	3.81	16.6	0.84	10,997.65
G11014D	61 13.622	48 2.755	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	340	10700	1500	5500	851	215	462	57.9	143	16	30.6	1.53	8.8	<0.01	24,525.83
G11016	61 13.004	48 2.467	336681.667	6790728.545	White calcite with black calcite vein	375	2500	396	1600	317	101	236	29.3	132	17.9	35.1	2.8	12	0.77	6,754,87
G11020	61 13.503	48 0.844	338176.343	6791586.930	Calcite, magnetite REE minerals in carbonatite	331	2900	436	1700	340	106	243	28.4	21	16	25	2.41	10.6	0.62	7,360.03
G11021	61 13.233	48 2.752	336446.517	6791165.236	Late-stage carbonatite vein calcite and magnetite	230	1600	300	900	153	43.7	104	15.4	70.3	10.4	23.9	2.26	10	0.78	4,163.74
G11030	61 13.661	48 3.014	336249.243	6791970.139	Goethite and red haematite	289	4300	669	2500	436	130	293	31.9	118	13.6	25	1.72	8.8	0.5	10,616.52

Sample	Latitude	Longitude	East UTM 84	North UTM	Description	Та	Sc	U	Th	W	Sn	Nb
No			Zone 23N	84 Zone 23N		ppm	ppm	ppm	ppm	ppm	ppm	ppm
G11001	61 13.687	48 3.367	335936.173	6792033.106	Goethite with white to pink xenoliths breccia	11	0.6	2.36	16.9	1.3	2.7	100
G11002	61 13.612	48 2.802	336434.592	6791870.391	Classic carbonatite with crystals of magnetite often preferentially weathered	18	1.8	5.92	19.5	1	16.1	1200
G11003	61 12.455	48 1.989	337061.994	6789690.225	As above but more carbonate	71	1	86.9	72	0.6	3.7	900
G11005	61 13.412	48 4.760	334666.043	6791581.515	Oldest syenite	59	2	7.69	37.3	0.7	8.6	600
G11006	61 13.688	48 3.803	335546.000	6792053.253	Gronnedal-Ika syenite large feldspars	21	0.6	7.78	12.2	1.2	6.8	200
G11007	61 13.976	48 3.922	335464.660	6792592.500	Cross cutting syenite dyke	<5	16.5	1.33	5.37	0.6	1.8	<100
G11008	61 13.331	48 3.224	336032.817	6791366.747	Gossan with red? REE mineral vein in syenite, magnetite present	<5	1.7	25.4	174	0.3	0.5	<100
G11009	61 13.653	48 2.975	336283.427	6791953.670	Carbonatite vein with red patches (REE), late-stage vein	-	0.5	0.85	1370	0.4	<0.3	<100

Sample No	Latitude	Longitude	East UTM 84 Zone 23N	North UTM 84 Zone 23N	Description	Ta ppm	Sc ppm	U ppm	Th ppm	w ppm	Sn ppm	Nb ppm
G11010	61 14.310	48 3.012	336307.267	6793173.990	Magnetite pieces in calcite vein	13	1	9.65	43.8	0.5	1.7	400
G11011	61 14.310	48 3.012	336307.267	6793173.990	Magnetite pieces in calcite vein	<5	2.1	2.08	223	0.4	1	<100
011011	0111.310	10 3.012	330307.207	0733173.330	magnetic pieces in calone vein	1.5		2.00	223	0.1		1200
G11012	61 14.288	48 2.933	336375.987	6793129.880	Quartz breccia in calcite and magnetite	12	1	6.83	215	0.4	0.9	<100
G11013	61 13.622	48 2.755	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	7	1.4	12	231	0.3	1	<100
011010	01 10:022	10 217 00	0001771130	0752000.500	Sicola gricias with additic veina containing print mineral.				201	0.0		1200
G11014A	61 13.622	48 2.755	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	10	1.5	12.7	758	0.5	1.3	100
6440445	64.40.600	40.2 755	226477 400	6704006 000		_	2.5	40.0	245	0.0		100
611014B	61 13.622	48 2.755	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	7	2.5	10.8	245	0.2	0.4	<100
G11014C	61 13.622	48 2.755	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	<s< td=""><td>0.8</td><td>5.49</td><td>387</td><td>0.4</td><td>0.7</td><td>&lt;100</td></s<>	0.8	5.49	387	0.4	0.7	<100
G11014D	61 13.622	48 2.755	336477.490	6791886.980	Breccia gneiss with calcite veins containing pink mineral	10	0.6	4.29	766	0.3	0.4	<100
611016	64.42.004	40.2.467	226604 667	6700720 545	Wilder and the control of the control		0.0	44.5	457	0.2	_	500
G11016	61 13.004	48 2.467	336681.667	6790728.545	White calcite with black calcite vein	6	0.9	14.5	157	0.3	5	500
G11020	61 13.503	48 0.844	338176.343	6791586.930	Calcite, magnetite, REE minerals in carbonatite	<s< td=""><td>0.5</td><td>1.7</td><td>193</td><td>0.2</td><td>0.4</td><td>&lt;100</td></s<>	0.5	1.7	193	0.2	0.4	<100
G11021	61 13.233	48 2.752	336446.517	6791165.236	Late-stage carbonatite vein calcite and magnetite	7	1.3	6.45	20.4	1.4	26.3	1900
G11030	61 13.661	48 3.014	336249.243	6791970.139	Goethite and red haematite	11	1.2	17.6	246	0.5	2.3	200

# Appendix B

# JORC Code, 2012 Edition – Table 1 report

# **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections) (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	Rock Chip samples  In 2011, Barnes and Associates collected 20 rock chips from the Gronnedal-Ika project area. All assay data is presented in Appendix A.  The rock chip samples are believed to be representative for the general outcrop in the area with numerous lithologies tested for REE potential.  The rock chip samples presented in the report provide for context to continuation of REE within the broader prospect that requires further investigations by Eclipse Metals Ltd. The rock chip locations and assay data has been extracted from the historical reports. All samples were taken from outcrop as there is little or no soil profile.
	submarine nodules) may warrant disclosure	

Criteria	JORC Code explanation	Commentary
	of detailed information.	
Drilling	Drill type (eg core, reverse circulation,	Not Applicable
techniques	open-hole hammer, rotary air blast, auger,	
techniques	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).	
Drill sample recovery	Method of recording and assessing core	Not Applicable
	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.	
Logging	Whether core and chip samples have been	Eclipse Metals records of the rock chip results were qualitative. The Gronnedal-lka area is currently
	geologically and geotechnically logged to a	classified as early stage of exploration and no Mineral Resource estimation is applicable
	level of detail to support appropriate	
	Mineral Resource estimation, mining	No photos were available in the reports.
	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.	
Sub-sampling techniques	If core, whether cut or sawn and whether	The rock chip samples were collected from outcrop in the field.
and sample preparation	quarter, half or all core taken.	
	If non-core, whether riffled, tube sampled,	

Criteria	JORC Code explanation	Commentary
	rotary split, etc and whether sampled wet or dry.  For all sample types, the nature, quality	Samples were submitted to SGS in Perth. Entire samples were dried, crushed and pulverised to 85% passing <75 um., <3.5 kg
	and appropriateness of the sample preparation technique.	No duplicate samples were assayed.
	Quality control procedures adopted for all sub-sampling stages to maximise	Sample sizes are appropriate and typically range from 1.5 to 2.5 kg
	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.	The laboratory has internal quality control procedures to ensure a representative sub sample
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures	The samples were collected by a highly experienced geologist with samples selected based on geological observation in the field.
	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	The rock chip samples were submitted to SGS Perth WA. The entire samples were dried, crushed and pulverised to 85% passing <75 um. The rocks were analysed for the full suite of elements including; Y, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Ta, Sc, U, W, Sn and Nb with four acid digest DIG40Q and ICPAES and ICPMS. XRF75V (Pressed Powder) and XRF780 XRF Fusion Ore Grade was used if ore grade material was detected.  Some samples could be not analysed by low level XRF tantalum due to some materials being out of scope with % levels of Zr, Zn, Pb or Sr. Tantalum on these samples reported by fusion XRF with higher DL.
	acceptable levels of accuracy (ie lack of bias) and precision have been established.	Acceptable levels of accuracy from these rock chips have been established.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Based on historical results reported, verification of significant intersections has been completed as per Table 1 of the announcement
	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.	Documentation of primary data, data entry procedures, data verification protocols have been completed. Historical data was sourced from reports lodged to the Greenland authorities. The data was entered and transferred to a digital spreadsheet along with all the merged of all field data.  No adjustments were made to the assay data
Location of data points	Accuracy and quality of surveys used to	All rock chip sample location were reported as Lat and Long coordinates.
Location of data points	locate drill holes (collar and down-hole surveys), trenches, mine workings and other	The sample locations were recorded by handheld GPS receivers.
	locations used in Mineral Resource	The sample locations were recorded by Handheld Or S receivers.
	estimation.	The coordinates were then converted to WGS84 Zone 23N.
	Specification of the grid system used.  Quality and adequacy of topographic	
	control.	
Data spacing and	Data spacing for reporting of	No Mineral Resource is being considered in this report.
distribution	Exploration Results.  Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate	Samples were taken from random location based on the different lithological units observed in the field.
	for the Mineral Resource and Ore Reserve	The locations of the samples are provided in Appendix A and the results in Figure 1. The sample
	estimation procedure(s) and classifications applied.	results released in this report will not be used to calculate mineral resources.
	Whether sample compositing has been	No sample compositing has been applied.
	applied.	
Orientation of data in	Whether the orientation of sampling achieve	• •
relation to geological	unbiased sampling of possible structures and extent to which this is known, considering the	
structure	deposit type.	
	If the relationship between the drilling	
	orientation and the orientation of key	

Criteria	JORC Code explanation	Commentary
	mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	The measures taken to ensure sample securit	No information relating to the sample security have been identified.
Audits or reviews	The results of any audits or reviews of sampli techniques and data.	No details observed on any previous sampling reviews or audits. Its assumed that industry standard practices and procedure were implemented at that time.

# **Section 2 Reporting of Exploration Results**

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

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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.	MEL27007-45 the Tenement, has been transferred to Eclipse Metals Limited. The total area of the MEL is 50 sq km.  No current security over the tenure
Exploration done by	Acknowledgment and appraisal of exploration by other	GEUS Report File No. 22563
other parties	parties.	Ivigtut Annual Report over Licence No. 2007/45. This report provided the results of samples taken from the Gronnedal-lka carbonatite along with the recommended exploration for the year after
Geology	Deposit type, geological setting and style of mineralisation.	Granitic Layered Intrusive Deposits
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the	Not Applicable
	following information for all Material drill holes:  o easting and northing of the drill hole collar  o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	All rock chip samples have been released in the report

Criteria	JORC Code explanation	Commentary
Data aggregation methods	o dip and azimuth of the hole o down hole length and interception depth o hole length.  If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.  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.	No aggregation methods have been applied
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
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
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Appropriate maps are provided in the body of the report

Criteria	JORC Code explanation	Commentary
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.	The assay results have been sourced from the historical reports and have been substantially documented.
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.	· · ·
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Further work will comprise of further ground reconnaissance, detailed geological mapping and geochemical surveys