

16 August 2023

GRUVHAGEN PROJECT DELIVERS ASSAYS OF 19.7% TREO (31% NdPr) and 169 g/t GALLIUM

Recent work by Ragnar, including rock assays at the recently acquired Gruvhagen Project, indicates:

- Up to **19.7% TREO** with a **high NdPr ratio (31%)** together with **significant gallium (169 g/t)**, copper (0.8%) and cobalt (490 g/t) mineralisation at the Morkens Prospect
- A strike length extending 700m of REO-gallium mineralisation is now defined between the Morken East and Gruvhagen prospects
- The southern contact of the 7km long airborne magnetic anomaly is interpreted to be highly prospective for further REE-gallium mineralisation and will be a focus of the next phase of work by Ragnar

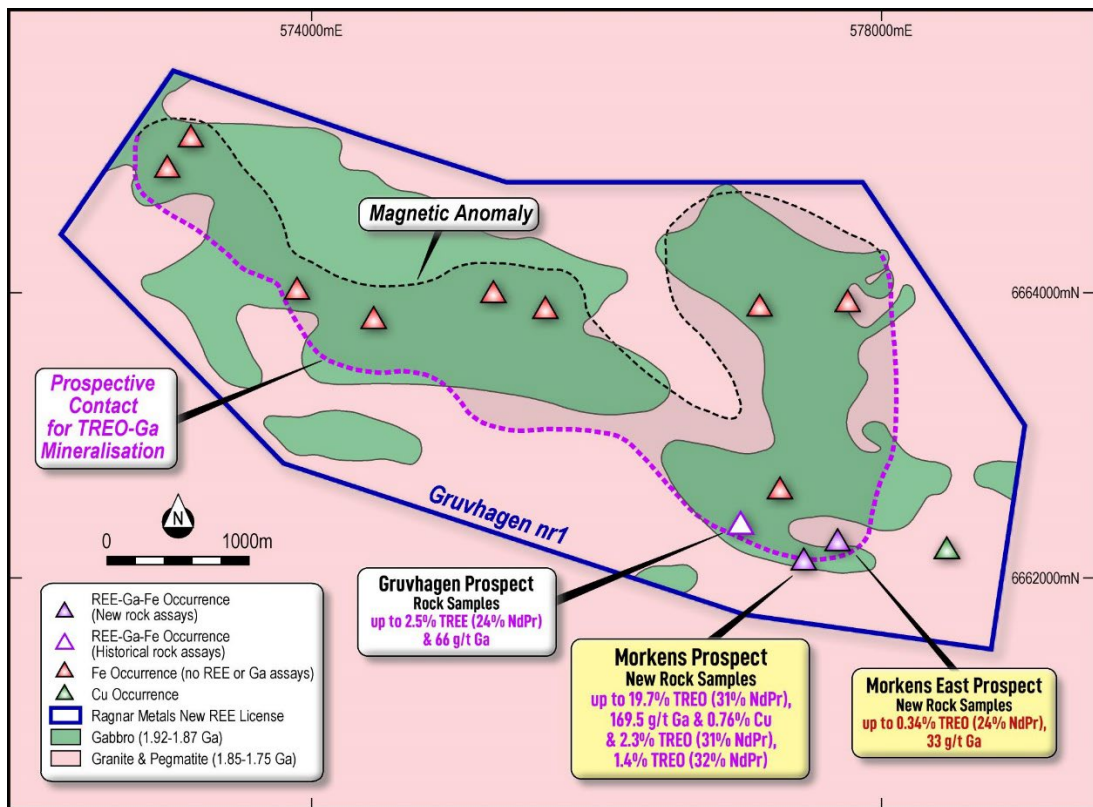


Figure 1: Interpreted bedrock geology of the Gruvhagen prospect highlighting the airborne magnetic anomaly

Executive Director Eddie King commented:

"We are delighted to announce early confirmation of significant NdPr and gallium mineralisation over the potential 700m strike. We continue to be impressed with the potential for critical minerals on our projects in Sweden, and we look forward to continuing our exploration program following this compelling result from Gruvhagen."

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Program Overview

Ragnar Metals Limited (“Ragnar” or “the Company”, ASX: RAG) is pleased to announce the assay results of the first field reconnaissance program at the recently acquired Gruvhagen Project in Sweden. During the program an experienced geologist of Bergskraft Bergslagen was contracted by Ragnar in June 2023 to conduct an initial field visit to the project to relocate the historic REE occurrences and conduct full-suite multi-element assays. This work aims to identify the metal assemblage and mineralisation style and establish the potential scale and strike potential to focus future exploration efforts. 17 rock samples were taken, of which 16 were submitted to the laboratory and assays received (Table 1).

A small digging was identified at the Morkens prospect, where highly altered rocks with visible pyrite-chalcopyrite mineralisation were observed in the waste pile. The rocks are so altered that the original rock type is as-yet unidentified. A suite of 5 rock samples were taken for assays with highly encouraging results (Table 1). The best results are:

- **19.7% TREO (31% NdPr), 169 g/t gallium, 0.8% copper** and 490 ppm cobalt in sample 23GRUGS013;
- **2.3% TREO (31% NdPr), 0.4% copper** and 515 ppm cobalt in sample 23GRUGS016; and
- **1.3% TREO (32% NdPr), 0.3% copper** and 394 ppm cobalt in sample 23GRUGS017.

Sampling 270m to the east of Morkens revealed a new area of highly elevated REO-gallium assays up to **0.34% TREE (24% NdPr) and 33 g/t gallium** which is now called Morkens East (Figure 1).



Figure 2: (left) photograph of pyrite (5%)-chalcopyrite (2%)-altered rock from Morkens Prospect that returned 19.7% TREO and 169 g/t Ga in sample 23GRUGS013; & (right) magnetite-rich rock that assayed 32% Fe₂O₃, 1433 ppm TREO and 10 g/t Ga in sample 23GRUGS008.

The historical REE mineralisation previously identified at the Gruvhagen project (See RAG announcement 26 June 2023) has yet to be located in the field. However, it has now been established that historical assays returned high-grade gallium with up to **369 g/t Ga associated with 3.7% TREE at the Morkens prospect** (Table 2).

The rock assays at all three prospects support the interpretation that REE-gallium mineralisation extends for at least a 700m strike (Figure 1). Compilation work by Ragnar indicates that the REE-gallium-copper mineralisation appears to occur on the southern edge of a low-resolution magnetic anomaly that extends for at least a 7km strike (Figure 1). The source of the magnetic anomaly was confirmed in the field with the identification of iron-rich magnetite-hematite altered rocks with 32-73% Fe₂O₃ but importantly, together with highly elevated REE up to 1395 ppm TREO and 10 g/t gallium (Figure 2, Table 1). This confirms a strong spatial relationship between the magnetite-hematite with more strongly mineralised REE and gallium along the edge of the magnetic anomaly to the south (Figure 1).

Conclusions and Ongoing Work Programs

This work by Ragnar is extremely encouraging and indicates that NdPr-rich REE mineralisation with significant gallium and copper potentially occurs over at least a 700m strike in the area where rare metals have been assayed. Also, interpretation of the low-resolution magnetic data indicates that the NdPr-gallium mineralisation potentially occurs for 7km strike along the southern edge of the magnetic anomaly, which is mapping the iron mineralisation. More field sampling work is now required along the prospective contact to establish this interpretation. Ragnar is also engaging the Geological Survey of Sweden to acquire more detailed airborne magnetic data to assist in mapping the prospective southern connection of the magnetite mineralisation. In addition, Ragnar will consider acquiring its own more detailed magnetic data to explore the project more effectively.

Gruvhagen Project Background

Earlier this year, Ragnar Metals completed a nationwide review of geochemical and geophysical datasets in Sweden to identify areas prospective for discovering deposits of critical minerals. A number of significant REE deposits are known in Sweden such as Norma Karr and Olserum so Ragnar believes the Fennoscandian Shield in Sweden is highly prospective for discovery of further deposits of these critical metals (Figure 3).

As part of this review, an opportunity was identified at Gruvhagen, where 16.5 km² tenure was secured 20km north of Ragnar Metals Granmuren Ni-Cu discovery within the northeast extension of the “REE Line” in the district surrounding the town of Bastnas in Sweden (Figure 4). Further background details including historical assays are given in RAG announcement dated 26 June 2023 including the indication of highly elevated REE assays at two prospects.

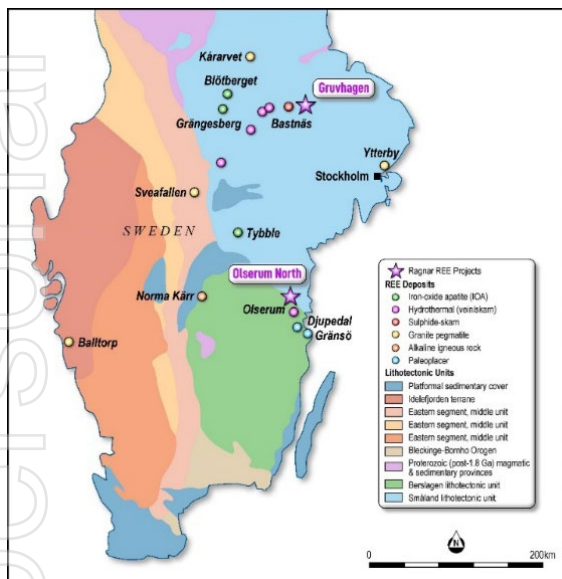


Figure 3: Simplified geological map of Southwest Fennoscandian Shield showing the location of Ragnar's new REE Projects in relation to the Olserum and Norma Karr REE deposits.

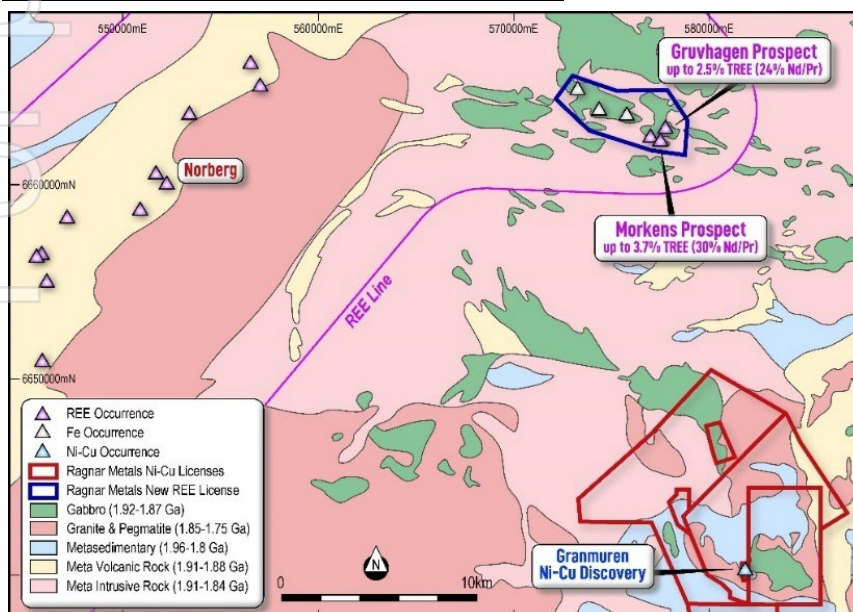


Figure 4: Interpreted bedrock geology map showing Ragnar's newly acquired Gruvhagen Project in relation to the Bastnas-style “REE Line” and Ragnar's Granmuren Ni-Cu discovery.

Table 1: New rock assays by Ragnar Metals

SampleID	23GRUGS10	23GRUGS11	23GRUGS12	23GRUGS13	23GRUGS14	23GRUGS15	23GRUGS16	23GRUGS17
TREO ppm	70	3377	643	197250	961	3091	22776	13152
NdPr%	27%	24%	19%	31%	29%	29%	31%	32%
CeO2 ppm	27.5	1339.0	141.3	87093.6	380.8	1412.7	8304.0	4717.1
Dy2O3 ppm	1.1	57.0	37.8	920.5	14.7	13.1	477.4	293.8
Er2O3 ppm	0.6	19.3	16.3	128.6	4.6	2.0	100.6	66.8
Gd2O3 ppm	2.2	98.4	28.6	4287.7	30.7	55.4	1088.1	604.0
Ho2O3 ppm	0.2	8.9	7.1	98.2	2.2	1.4	61.5	39.2
La2O3 ppm	10.2	684.9	64.5	34245.8	151.3	565.3	2638.8	1489.5
Lu2O3 ppm	0.1	1.1	1.4	4.9	0.6	0.1	3.8	2.8
Nd2O3 ppm	13.3	577.4	65.4	49222.1	202.4	696.3	5540.4	3067.6
Pr6O11 ppm	3.4	156.5	16.9	10753.0	49.4	186.7	1208.2	686.3
Sm2O3 ppm	2.5	117.7	18.4	7073.6	39.1	110.4	1159.6	722.4
Tb4O7 ppm	0.3	12.2	5.8	345.8	3.6	4.4	122.3	71.5
Tm2O3 ppm	0.1	1.8	2.0	9.7	0.6	0.2	8.6	5.9
Y2O3 ppm	7.9	293.3	226.0	3035.1	77.5	42.5	2025.5	1358.8
Yb2O3 ppm	0.8	9.7	11.5	31.5	3.7	0.7	37.5	26.6
Ga ppm	52.7	33.3	7.3	169.5	4.4	1.2	3.4	2.4
Cu ppm	19	1	<1	7640	16	698	4290	2710
Co ppm	14	6	14	490	26	53	515	394
Fe2O3 %	69.2	6.23	31.2	8.59	2.94	4	10.7	8.93
East	577403	577694	577528	577463	577463	577463	577463	577463
North	6662287	6662273	6662166	6662156	6662156	6662156	6662156	6662156

SampleID	23GRUGS01	23GRUGS02	23GRUGS03	23GRUGS04	23GRUGS06	23GRUGS07	23GRUGS08	23GRUGS09
TREO ppm	402	347	454	155	704	945	1395	113
NdPr%	20%	16%	18%	16%	17%	22%	23%	13%
CeO2 ppm	166.4	129.6	160.9	49.4	264.1	388.2	609.3	27.6
Dy2O3 ppm	4.7	6.7	10.3	4.9	12.3	11.3	14.0	5.0
Er2O3 ppm	1.6	2.3	4.6	1.9	3.8	4.8	5.5	3.6
Gd2O3 ppm	7.9	8.9	12.0	5.4	19.4	18.4	26.6	3.4
Ho2O3 ppm	0.8	1.1	1.9	0.8	1.9	2.0	2.4	1.1
La2O3 ppm	102.9	93.5	103.8	35.4	192.3	218.7	304.9	11.5
Lu2O3 ppm	0.1	0.2	0.4	0.2	0.3	0.5	0.6	0.8
Nd2O3 ppm	57.5	38.6	54.9	16.6	83.4	143.5	240.3	12.1
Pr6O11 ppm	17.0	12.0	15.9	4.8	25.0	41.8	67.9	3.3
Sm2O3 ppm	9.9	8.4	11.1	3.9	18.4	22.3	38.3	3.1
Tb4O7 ppm	1.0	1.3	1.8	0.9	2.5	2.2	3.1	0.7
Tm2O3 ppm	0.2	0.3	0.6	0.2	0.4	0.6	0.7	0.6
Y2O3 ppm	31.2	42.9	72.4	29.5	77.3	87.0	77.2	35.6
Yb2O3 ppm	1.0	1.4	3.4	1.3	2.3	3.4	4.3	4.7
Ga ppm	1.9	5.1	7.1	3.3	7.9	12	10	11.5
Cu ppm	<1	3	<1	<1	<1	<1	<1	1
Co ppm	2	4	3	2	3	3	3	2
Fe2O3 %	72.8	60.7	49.7	68.2	55.8	30.4	32.2	4.55
East	577308	577248	577262	577262	577029	577029	577029	577403
North	6662614	6662593	6662565	6662565	6662378	6662378	6662378	6662304

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Table 2: Historical assays reported in this and previous announcement (RAG announcement 26 June) sourced from the Geological Survey of Sweden rock geochemical database updated for gallium assays

Sample	GRUVHAG1	MORK3	MORK2
Prospect	Gruvhagen	Morkens	Morkens
Rare Earth Element	ppm	ppm	ppm
TREE+Y	24573.9	24970.6	36920.8
NdPr %	24%	33%	32%
La	5980	3080	10000
Ce	10000	9070	10000
Pr	1000	1000	1000
Nd	4950	6430	10000
Sm	891	1000	1000
Eu	224	55.2	224
Gd	573	1000	1000
Tb	51.2	144.5	276
Dy	177	583	816
Ho	21.7	78.1	87.3
Er	35.8	133.5	121.5
Tm	3.46	12.3	9.57
Yb	15.65	48.8	32.6
Lu	2.1	5.17	3.82
Y	649	2330	2350
Ga	65.9	57.6	369
Cu	6.1	7530	2450
Co	1	449	467
East	577026	577465	577465
North	6662377	6662160	6662160

Table 3: Ragnar Metals Sweden Project Tenement Details

Name	License ID	RAG Ownership	Area Ha	Expiry Date
Gruvhagen nr 1	2023 38	100%	1612.54	23/03/2026
Olserum North	2023 55	100%	2082.61	25/04/2026
Bergom nr 2	2023 35	100%	2767.31	20/03/2026
Bergom nr 3	Application	100%	4773.74	
Hälleberget nr 1	2023 36	100%	2110.45	20/03/2026
Hälleberget nr 2	Application	100%	3152.4	
Total Area			16499.05	

Note:

* Table of tenements does not include Granmuren project and Gaddebo tenements subject to divestment as announced by the Company on 23 June 2023.

For the purpose of ASX Listing Rule 15.5, the Board has authorised this announcement to be released.

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Competent Person Statement

The information in this announcement relating to exploration results, geology and planning is based on information compiled by Leo Horn of All Terrain Geology, a consultant to Ragnar Metals and a member of The Australasian Institute of Geoscientists. Mr Horn has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking 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 Horn consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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APPENDIX 1 JORC TABLE 1 - JORC CODE, 2012 EDITION – TABLE 1
Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. 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. 	<ul style="list-style-type: none"> Rock sampling by Ragnar Metals is mainly outcrop rock samples, however in the absence of outcrop some float samples have been taken near historical workings that are interpreted to be sourced close to outcrop. All sample types and descriptions were carefully recorded by the geologist. The announcement also refers to rocks collected, described and assayed by the Geological Survey of Sweden in 2019
	<ul style="list-style-type: none"> Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<ul style="list-style-type: none"> No drilling reported in this announcement.
	<ul style="list-style-type: none"> Aspects of the determination of mineralisation that are material to the Public Report. 	<ul style="list-style-type: none"> No drilling reported in this announcement.
	<ul style="list-style-type: none"> In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g 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 (e.g. submarine nodules) may warrant disclosure of detailed information 	<ul style="list-style-type: none"> No drilling reported in this announcement.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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). 	<ul style="list-style-type: none"> No drilling reported in this announcement.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> No drilling reported in this announcement.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Geological descriptions were recorded by Ragnar Metals for each rock sample when collected by geologist. Geological descriptions also recorded by the Geological Survey of Sweden in 2019.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> No drilling reported in this announcement. No sub-sampling completed for new or historical rock rock chips.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> No drilling reported in this announcement. Rock assays were conducted by ALS laboratories in Pitea Sweden where samples were subject to lithium borate fusion followed by ICP-MS for full suite REE and other rare metals (*over limit assays by ICPAES), four-acid digest for base metals ICP-AES and whole rock package by ICP-AES Historical rock assay by Geological Survey of Sweden in 2019: Assays were conducted by Geological Survey of Sweden at ALS Scandinavia AB and are derived from a lithium borate fusion followed by either ICP-AES or ICP-MS.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. 	<ul style="list-style-type: none"> No drilling reported in this announcement. High rare earth and gallium assays by Ragnar at Gruvhagen help to validate the previously reported rare earth and gallium assays reported by Geological Survey of Sweden in 2019
	<ul style="list-style-type: none"> The use of twinned holes. 	<ul style="list-style-type: none"> No drilling reported in this announcement.
	<ul style="list-style-type: none"> Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> No drilling reported in this announcement. Oxide conversions calculated for REE (see Data Aggregation Methods section)
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Location of rock samples by Ragnar Metals were recorded using a handheld GPS which is considered appropriate for reconnaissance sampling. Locations of rock samples by the Geological Survey of Sweden were completed utilising a handheld GPS in 2019.
	<ul style="list-style-type: none"> Specification of the grid system used. 	<ul style="list-style-type: none"> SWREF99TM
	<ul style="list-style-type: none"> Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Elevation data not collected from handheld GPS
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 	<ul style="list-style-type: none"> Rock samples were taken at selected outcrops and historic iron occurrences and workings including waste piles
	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Further sampling work is required to establish continuity of mineralisation

Criteria	JORC Code explanation	Commentary
	procedure(s) and classifications applied. <ul style="list-style-type: none"> Whether sample compositing has been applied 	<ul style="list-style-type: none"> No drilling or channel composite samples reported in this announcement.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> No drilling reported in this announcement. Reconnaissance rock sampling by Ragnar Metals was taken where outcrops are available and waste piles from historical workings were taken where outcrop is unavailable since these rocks are sourced from the bedrock below. The orientation of rare earth and gallium mineralisation is yet to be defined. More work is required to confirm the mineralisation is oriented NW-SE parallel to the magnetic anomaly. Note: rock chips are inherently biased and selective in nature and should only be treated as suggestive of mineralisation.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Ragnar Metals ensured that sample security was maintained to ensure the integrity of sample quality.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews have been conducted for this release given the early stage of 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 style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Exploration Permit Gruvhagen nr 1 (2023:38) is owned 100% by Ragnar Metals. The tenure is located in Bergslagen District within the Municipality of Sala on Map page 11G. The Permits are valid 23/03/2026. There are no known impediments to operate in the licenses areas for early stage exploration work.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	Rock assays reported in this announcement were conducted recently by the Geological Survey of Sweden in 2019 as a result of the EURARE project which was funded by the European Commission to address the "Development of a sustainable exploitation scheme for Europe's Rare Earth Element ore deposits".
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	REE mineralisation style at each prospect are not well understood. However, the Geological Survey of Sweden describes mineralisation at Gruvhagen as a Bastnasite-style iron oxide-REE (+/-copper) deposit style.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high 	<ul style="list-style-type: none"> No drilling reported in this announcement however rock assay results are converted to stoichiometric oxide (REO) using element-to-stoichiometric oxide conversion factors These stoichiometric conversion factors are stated in the table below. Rare earth oxide is the industry accepted form for reporting rare earth metal assay results.

Criteria	JORC Code explanation	Commentary																																																																				
	<p>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.</p>	<ul style="list-style-type: none"> NdPr ratio refers to the % calculation of $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$ / REO expressed as a percent. <table border="1"> <thead> <tr> <th>Element</th> <th>Conversion Factor</th> <th>Oxide Form</th> <th>Type</th> </tr> </thead> <tbody> <tr><td>Ce</td><td>1.2284</td><td>CeO₂</td><td>Light</td></tr> <tr><td>Dy</td><td>1.1477</td><td>Dy₂O₃</td><td>Heavy</td></tr> <tr><td>Er</td><td>1.1435</td><td>Er₂O₃</td><td>Heavy</td></tr> <tr><td>Eu</td><td>1.1579</td><td>Eu₂O₃</td><td>Heavy</td></tr> <tr><td>Gd</td><td>1.1526</td><td>Gd₂O₃</td><td>Heavy</td></tr> <tr><td>Ho</td><td>1.1455</td><td>Ho₂O₃</td><td>Heavy</td></tr> <tr><td>La</td><td>1.1728</td><td>La₂O₃</td><td>Light</td></tr> <tr><td>Lu</td><td>1.1372</td><td>Lu₂O₃</td><td>Heavy</td></tr> <tr><td>Nd</td><td>1.1664</td><td>Nd₂O₃</td><td>Light</td></tr> <tr><td>Pr</td><td>1.2082</td><td>Pr₆O₁₁</td><td>Light</td></tr> <tr><td>Sc</td><td>1.5338</td><td>Sc₂O₃</td><td></td></tr> <tr><td>Sm</td><td>1.1596</td><td>Sm₂O₃</td><td>Light</td></tr> <tr><td>Tb</td><td>1.1762</td><td>Tb₄O₇</td><td>Heavy</td></tr> <tr><td>Tm</td><td>1.1421</td><td>Tm₂O₃</td><td>Heavy</td></tr> <tr><td>Y</td><td>1.2699</td><td>Y₂O₃</td><td>Heavy</td></tr> <tr><td>Yb</td><td>1.1387</td><td>Yb₂O₃</td><td>Heavy</td></tr> </tbody> </table>	Element	Conversion Factor	Oxide Form	Type	Ce	1.2284	CeO ₂	Light	Dy	1.1477	Dy ₂ O ₃	Heavy	Er	1.1435	Er ₂ O ₃	Heavy	Eu	1.1579	Eu ₂ O ₃	Heavy	Gd	1.1526	Gd ₂ O ₃	Heavy	Ho	1.1455	Ho ₂ O ₃	Heavy	La	1.1728	La ₂ O ₃	Light	Lu	1.1372	Lu ₂ O ₃	Heavy	Nd	1.1664	Nd ₂ O ₃	Light	Pr	1.2082	Pr ₆ O ₁₁	Light	Sc	1.5338	Sc ₂ O ₃		Sm	1.1596	Sm ₂ O ₃	Light	Tb	1.1762	Tb ₄ O ₇	Heavy	Tm	1.1421	Tm ₂ O ₃	Heavy	Y	1.2699	Y ₂ O ₃	Heavy	Yb	1.1387	Yb ₂ O ₃	Heavy
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Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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 (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> No drilling reported in this announcement. Rock samples are mainly important examples of the REE-gallium and banded iron styles of mineralisation identified in the field by Ragnar and the Geological Survey of Sweden in 2019 																																																																				
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Appropriate maps and tables are included in the body of the Report. 																																																																				
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No drilling reported in this announcement. The accompanying document is a balanced report of recent rock samples assays by Ragnar Metals in comparison to rock assay results by Geological Survey of Sweden in 2019 																																																																				
Other substantive exploration data	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> All meaningful and material exploration data available to the Company is disclosed in the body of this announcement. A publicly available low-resolution airborne magnetic image from the Geological Survey of Sweden has been utilised for a preliminary interpretation on Figure 1. The resolution of the imagery is as yet unknown but is anticipated to be greater than 200m. Ragnar is in the process of acquiring and 																																																																				

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	characteristics; potential deleterious or contaminating substances.	reprocessing more detailed airborne magnetic data more suitable for interpretation on this project.
Further work	<ul style="list-style-type: none"> • The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out 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. 	<ul style="list-style-type: none"> • Further work is described in the body of this announcement.

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