

# SCALE POTENTIAL FOR HEAVY RARE EARTH MINERALISATION CONFIRMED BY NEW ROCK ASSAYS

**Ragnar Metals Limited ("Ragnar" or "the Company", ASX: RAG)** is pleased to announce assay results for the second field program at its Olserum North Heavy Rare Earth Project in Southern Sweden. Rock chip samples taken during the recent field trip produced encouraging assay results supporting further exploration work this summer.

### Highlights include:

- <u>Melsjon Prospect</u>: New discovery outcrop of biotite- and/or magnetite-altered syenite with assays up to **1.7% TREO** and **0.6% TREO** with up to **40% HREO**.
- <u>Flaken Prospect</u>: Several new outcrops of magnetite-bearing altered rock produced assays up to 4.1% TREO and 2.3% TREO with up to 40% HREO. This new rock sampling has a defined total strike of outcropping HREE, up to 400m.
- <u>Hylleled Prospect</u>: New outcrops of biotite-bearing altered rock produced assays up to 2.3% TREO and 0.7% TREO with up to 65% HREO. The new rock sampling has a defined total strike of outcropping HREE, up to 330m.
- New assays strongly support the widespread prospectivity of our 50km<sup>2</sup> package strategically located along strike from the Olserum Heavy Rare Earth Deposit.



Figure 1: (Left) New discovery of biotite-magnetite-altered rock with 1.7% TREO (40% HREO) in B3739 at Melsjon; and (right) outcrop of biotite-magnetite-altered rock (black) with 4.1% TREO (40% HREO) in B3758 at Flaken.

#### Executive Director Eddie King commented:

"These new heavy rare earth rock assay findings have further confirmed exciting results, particularly for dysprosium and terbium. These results reinforce our confidence in the region and the possibility of a substantial critical mineral deposit being discovered in this area, and we will commence the next phase of exploration work at Olserum North during the summer season."

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For an explanation of the strategic location and significance of unique high-value Heavy Rare Earth (HREE) metals such as terbium (worth US\$5,000/tonne) and dysprosium (worth US\$284,000/tonne), see the RAG announcement of June 26, 2023.

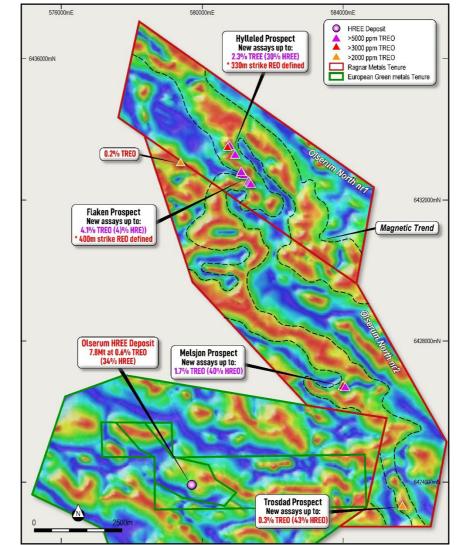
## **Rock Sampling at Olserum North HREE Project**

In March 2024, Ragnar geologists completed fieldwork at Olserum North and collected 41 rock samples in the area. This work aimed to extend the known outcropping HREE mineralisation reported in 2023 (See ASX:RAG announcement 13 July 2023). Another important aim was identifying HREE mineralisation in the first rock sampling on the newly acquired Olserum North nr2 license (See ASX:RAG announcement 7 December 2023).

One of the crucial breakthroughs of this program is the discovery of an entirely new zone of HREE mineralisation at the Melsjon Prospect (Figure 2). The geology of this exciting area is described as a biotite-magnetite-amphibole-altered felsic dyke intruding a biotite-alteration schist with visual evidence for hematite alteration. Notably, other biotite-altered syenites with no magnetite are also mineralised with REE.

Assay Highlights include:

17,407 ppm (1.7%) TREO with up to 40% of high-value HREO, including HREO metals 684 ppm Dy<sub>2</sub>O<sub>3</sub> and 80 ppm Tb<sub>4</sub>O<sub>7</sub> in B3739 (Figure 2); and



• **6,416 ppm (0.6%) TREO** with **up to 39%** of high-value **HREO** in B3741.

Figure 2: Airborne Magnetic Map (tilt derivative) showing the location of recent rock sample results (\*TREO includes all rare earth elements plus Y and Sc)



During the field program, further detailed investigations were conducted at the *Flaken* prospect, where several new outcrops of variable magnetite and biotite-altered rock and veining were encountered that returned further significant assays, including:

- 41,412 ppm (4.1%) TREO with up to 40% of very high HREO, including HREO metals 1,882 ppm Dy<sub>2</sub>O<sub>3</sub> and 307 ppm Tb<sub>4</sub>O<sub>7</sub> in B3758 (Figure 2); and
- 23,010 ppm (2.3%) TREO with up to 24% of significant HREO, including HREO metals 584 ppm Dy<sub>2</sub>O<sub>3</sub> and 101 ppm Tb<sub>4</sub>O<sub>7</sub> in B3722

This work has confirmed that consistent HREE mineralisation >0.4% TREO occurs at *Flaken* over at least 400m strike and is open in all directions, plus a second stacked zone identified to the north in the 2023 program (Figure 2).

During the field program, further detailed investigations were also conducted at the **Hylleled** prospect, where at least 2 new outcrops of mineralisation were identified. The most important outcome is the discovery of a new outcrop of biotite-altered rock (no magnetite) that is highly mineralised, including:

- 22,920 ppm (2.3%) TREO with up to 24% of significant HREO, including HREO metals 745 ppm Dy<sub>2</sub>O<sub>3</sub> and 129 ppm Tb<sub>4</sub>O<sub>7</sub> in B3746, as well as magnetite-altered mineralisation that returned:
- **7,011 ppm (0.7%) TREO** with up to **65%** of very high **HREO**, including HREO metals **456 ppm Dy**<sub>2</sub>**O**<sub>3</sub> and **76 ppm Tb**<sub>4</sub>**O**<sub>7</sub> in B3747;

This work suggests that HREE mineralisation **>0.4% TREO** is likely to occur at **Hylleled** over at least 330m strike and is open in all directions (Figure 2). This new zone of mineralisation is another example of high-grade HREE mineralisation unrelated to magnetite and cannot be detected with magnetic geophysical methods.

During the field program, two other exciting prospect areas were sampled and returned highly elevated HREE mineralisation, including:

- **3,274 ppm (0.3%) TREO** with **up to 43%** of high-value **HREO** in B3738 from a red hematite-altered syenite with weak disseminated biotite-magnetite at the *Trostad* prospect (Figure 2); and
- **2,244 ppm (0.2%) TREO** in B3729 from an anomaly located 1.4km southwest of *Hylleled* from a red hematite-altered granite with aggregates of mineralised biotite (Figure 1).

## **Conclusions and Ongoing Work Programs**

Ragnar's recent rock sampling work provides compelling evidence for the prospectivity of its extensive 50km<sup>2</sup> ground holding. The new discovery of HREE mineralisation at Melsjon reinforces Ragnar's interpretation that numerous zones of widespread HREE are likely to present. Furthermore, a key observation is that a considerable portion of the HREE mineralisation is strongly related to biotite alteration and only occurs with magnetite occasionally.

Ragnar intends to follow up these exciting results this summer with a more detailed program of channel sampling across key outcrops at *Flaken* and *Hylleled* where work program permits have been secured. A field trip is also planned to follow up the exciting new results from the *Melsjon* prospect where only a handful of samples have been taken to date. Results of these work programs will be reported in the coming months.

## About the Olserum North HREE Project and Olserum Deposit

Project tenure at Olserum North comprises 20.8km<sup>2</sup> strategically located 8.5km north of the Olserum HREE deposit **7.8Mt at 0.6% TREO with 34% HREO**<sup>2</sup>, which is in an identical geological setting characterised by the same host Palaeoproterozoic Svekokarelian metasedimentary rocks (1.9Ga) and Palaeoproterozoic alkalic granite and syenite rocks (1.8Ga) mapped by the Geological Survey of Sweden (Figure 3).

The Olserum HREE deposit is hosted in hydrothermally altered metasedimentary and alkalic granites. Sweden has recently defined the Olserum REE deposit and the surrounding area as a resource of national importance for critical minerals<sup>1</sup>. The Olserum deposit and resource are characterised by variably magnetite-biotite-altered rock, often with spectacular coarse crystals of REE-bearing xenotime minerals<sup>3</sup> (Figure 4). The mineralisation style identified on Ragnar's 100%-owned Olserum North displays striking similarities to the Olserum deposit itself.



What is most attractive about these deposits is the high percentage of heavy rare earth elements (HREE), in particular, the **Tb** (Terbium) and **Dy** (Dysprosium), as well as **Nd** (Neodymium). Notably, amongst various other essential uses, these metals are critical components in manufacturing performance technology solutions for clean energy. Rare earth elements (REE) are gaining prominence in the global economy due to their diverse applications, ranging from advanced electronics to permanent magnets in electric motors. For instance, a neodymium magnet utilised in wind turbines or electric vehicle motors boasts a strength 18 times greater than that of a conventional ferrite magnet, markedly enhancing energy efficiency.

In addition, Ragnar remains committed to exploration in Sweden since the country is consistently ranked in the top 10 of the Fraser Institute's Annual Survey of Mining Investment Attractiveness.

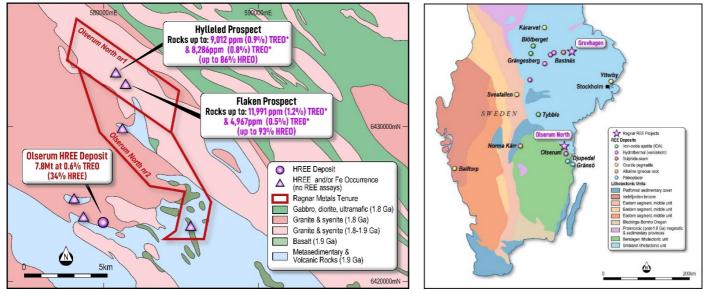


Figure 3 (Left): Interpreted bedrock geology map showing Ragnar's newly acquired Olserum North project in relation to the Olserum HREE deposit. (Right): A simplified geological map of the Southwest Fennoscandian Shield shows the location of Ragnar's new REE Projects in relation to the Olserum REE deposit.



Figure 4: Photograph of biotite-magnetite veins (black) with local concentrations of coarse xenotime (red-brown) and apatite (dull white)<sup>3</sup>.



#### Table 1: Rock sampling by Ragnar Metals at the Olserum North Project

SAMPLE	B3758	B3759	B3722	B3746	B3739	B3757	B3760	B3724	B3747	B3741	B3740	B3748	B3721	B3738
Easting	581293.2	581305.7	581088	580912.1	583995.6	581305.2	581292	581153.9	580706.7	583975.2	583983.1	580707.5	581097.8	585663.6
Northing	6432590.8	6432585	6432824.9	6433334.2	6426757.4	6432548.8	6432599.8	6432762.2	6433559.7	6426759.3	6426771.4	6433561.1	6432836.3	6423380.9
TREO_Y_Sc	41412	30047	23010	22920	17407	10671	8598	7099	7011	6416	5073	4721	4160	3274
HREO	16712	11314	5552	6805	6897	1692	1768	2226	4454	2438	1707	919	2065	1390
HREO%	40%	38%	24%	30%	40%	16%	21%	32%	65%	39%	34%	20%	50%	43%
NdPr	6311	4840	4360	4133	581	1953	1657	1297	831	252	285	979	550	122
NdPr%	15%	16%	19%	18%	3%	18%	19%	18%	12%	4%	6%	21%	13%	4%
CeO2	11768	8967	8808	7948	4791	4582	3390	2328	972	1800	1560	1812	993	830
Dy2O3	1882	1400	584	745	684	171	182	205	456	240	164	95	197	125
Er2O3	1025	625	308	372	555	87	93	130	241	196	129	43	120	114
Eu2O3	82	61	18	31	12	9	8	7	11	6	6	7	5	3
Gd2O3	1521	1104	607	754	233	213	216	211	425	88	68	139	153	44
Ho2O3	362	231	114	139	167	32	34	44	90	60	39	17	41	32
La2O3	5266	3788	3518	3202	4844	2134	1466	993	357	1718	1419	779	409	850
Lu2O3	135	78	37	44	92	12	11	18	27	33	20	5	16	24
Nd2O3	4934	3837	3441	3266	369	1505	1295	1016	695	165	200	773	439	79
Pr6011	1377	1003	919	867	212	448	362	282	136	87	85	205	112	43
Sc2O3	50	42	56	42	213	35	53	42	118	172	65	53	26	66
Sm2O3	1305	1095	717	790	82	275	263	212	279	36	38	180	116	15
Tb4O7	307	211	101	129	80	32	34	35	76	29	21	19	31	15
Tm2O3	147	87	42	51	88	12	12	19	31	30	19	6	17	20
Y2O3	10299	6959	3480	4229	4394	1046	1104	1441	2908	1549	1109	552	1378	866
Yb2O3	952	556	261	312	593	78	74	116	188	207	132	35	107	148

SAMPLE	B3756	B3736	B3719	B3729	B3720	B3755	B3723	B3751	B3754	B3731	B3727	B3750	B3726	B3737
Easting	581310.7	586069.8	581098.8	579390.6	581099.4	581324.8	581079.1	594215.2	581377	580378.1	580711	594215.2	580999	585531.1
Northing	6432546.4	6422554.1	6432838.9	6433062.2	6432838.1	6432533.6	6432825.7	6384899.9	6432551.6	6434340.1	6434409	6384899.9	6434329	6423227.8
TREO_Y_Sc	2904	2438	2286	2244	1747	1633	1165	866	647	641	613	581	536	533
HREO	445	1166	747	256	599	793	342	592	257	63	88	178	60	54
HREO%	15%	49%	33%	11%	35%	49%	30%	70%	40%	10%	15%	33%	12%	10%
NdPr	608	77	403	366	290	207	208	63	94	102	144	87	108	102
NdPr%	21%	3%	18%	16%	17%	13%	18%	7%	15%	16%	25%	16%	21%	20%
CeO2	1222	582	739	1026	548	408	398	127	187	300	228	181	232	242
Dy2O3	46	100	76	24	62	76	36	48	25	6	8	15	5	6
Er2O3	22	86	45	14	35	51	20	44	15	3	4	11	3	3
Eu2O3	3	2	3	2	3	2	1	1	1	1	4	2	3	1
Gd2O3	64	33	72	26	59	53	37	24	21	7	13	14	8	9
Ho2O3	8	25	15	5	12	16	7	12	5	1	2	3	1	1
La2O3	513	554	307	555	236	171	162	52	78	161	95	80	101	109
Lu2O3	3	16	6	2	4	7	2	8	2	1	1	2	0	0
Nd2O3	476	51	315	275	230	163	165	49	75	74	114	67	83	78
Pr6011	132	27	88	91	60	44	43	14	20	28	30	20	24	25
Sc2O3	30	47	19	4	17	13	16	18	11	7	39	41	23	12
Sm2O3	86	12	71	37	57	41	38	14	19	9	18	14	13	13
Tb4O7	9	12	13	4	10	11	6	6	4	1	2	2	1	1
Tm2O3	3	14	6	2	5	7	3	7	2	1	1	2	0	0
Y2O3	269	780	469	164	378	521	212	390	170	39	51	113	34	31
Yb2O3	19	99	42	13	30	49	17	51	13	4	4	13	3	2



SAMPLE	B3730	B3742	B3734	B3732	B3753	B3744	B3733	B3752	B3728	B3735	B3725	B3745	B3743
Easting	580209.1	583223.2	579467.2	580383.5	581400.2	581952.2	579465.7	582646.3	579371.9	579150.6	581527	581037.9	581142.3
Northing	6434108.8	6429173.3	6436138.5	6434292	6433810.2	6428373.8	6436135	6391311.7	6433069.1	6436272.3	6432121	6433223	6429984.4
TREO_Y_Sc	514	464	457	433	405	354	346	341	323	308	292	209	104
HREO	52	55	116	97	117	36	25	137	22	84	78	36	30
HREO%	10%	12%	26%	23%	31%	10%	7%	48%	7%	29%	28%	19%	33%
NdPr	82	80	79	74	68	64	44	47	51	46	47	37	14
NdPr%	16%	18%	18%	18%	18%	18%	13%	16%	16%	16%	17%	20%	15%
CeO2	239	208	162	161	123	164	176	71	155	104	101	75	31
Dy2O3	5	5	11	9	11	4	2	12	2	8	6	3	2
Er2O3	3	3	7	6	7	2	1	8	1	5	5	2	2
Eu2O3	0	2	2	1	3	1	1	1	1	1	1	0	1
Gd2O3	5	7	12	9	12	6	2	10	3	8	6	5	2
Ho2O3	1	1	2	2	2	1	0	3	0	2	1	1	1
La2O3	127	104	72	75	55	75	93	24	86	46	48	33	15
Lu2O3	0	0	1	1	1	0	0	2	0	1	1	0	0
Nd2O3	60	60	61	57	54	48	32	37	37	36	36	28	11
Pr6011	22	19	18	17	15	16	12	10	14	10	11	9	3
Sc2O3	7	10	15	16	30	8	4	53	6	20	12	22	12
Sm2O3	7	8	12	10	10	7	4	9	4	9	6	6	2
Tb4O7	1	1	2	2	2	1	0	2	0	1	1	1	0
Tm2O3	0	0	1	1	1	0	0	1	0	1	1	0	0
Y2O3	32	33	72	61	73	21	15	89	13	53	51	21	19
Yb2O3	3	3	6	5	6	1	1	10	1	5	5	2	2

#### Table 2: Ragnar Metals Sweden HREE and Lithium 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
Olserum North Nr 2	2023 118	100%	3014.02	17/08/2026
Bergom nr 2	2023 35	100%	2767.31	20/03/2026
Bergom nr 3	2023 116	100%	4773.74	17/08/2026
Hälleberget nr 1	2023 36	100%	2110.45	20/03/2026
Hälleberget nr 2	2023 58	100%	2985.79	25/10/2026
Total Area			19346.46	

#### **Orrvik tenements - transferring from Pallas Metals AB**

Name	License ID	RAG Ownership	Area Ha	Expiry Date
Orrvik Nr 110	2020 93	100%	600	3/12/2026
Orrvik Nr 210	2021 23	100%	922.52	16/03/2024
Orrvik Nr 300	2020 83	100%	450.07	5/11/2026
Orrvik Nr 400	2022 77	100%	1636.18	14/11/2025
Total Area			3608.77	

NB: The Company agreed to purchase the Orrvik tenements from Pallas Metals AB, as announced on 12 October 2023. Upon completion of the acquisition RAG would have a 100% in each of the Orrvik tenements

#### Western Australian Project Tenement details

On 30 April 2024, the Company surrendered Exploration licenses E39/1998 and E39/2005.

Tenement ID	RAG Ownership	Area Ha	Expiry Date
Leeds Project			
P15/6017	Loki Exploration Pty Ltd (80%)	198	2/04/2025
P15/6018	Loki Exploration Pty Ltd (80%)	199	2/04/2025



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

For further enquiries, contact:

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## References

<sup>1</sup> https://www.squ.se/om-squ/nyheter/2023/maj/olserum-blir-riksintresse-for-sallsynta-jordartsmetaller/

<sup>2</sup>Olserum indicated resource of 4.5Mt at 6000 ppm TREO (33.9% HREE) and an additional inferred resource of 3.3Mt at 6300 ppm TREO (33.7% HREE) reported in 2013 Amended and Restated Technical Report for Olserum REE Deposit Southern Sweden: <u>https://www.sec.gov/Archives/edgar/data/1474547/000094935313000119/exh99-1\_olserum.htm</u>

<sup>3</sup> Sadeghi, Arvanitidis, Ripa, 2019. Rare Earth Elements Distribution, mineralisation and exploration potential in Sweden. Geological Survey of Sweden

## **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 and documents in the form and context in which it appears.



## 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 in this section apply	JORC Code explanation Commentary
Sampling techniques	<ul> <li>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.</li> <li>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</li> </ul>
	<ul> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>No drilling reported in this announcement.</li> </ul>
	Aspects of the determination of mineralisation that are material to the Public Report.
	<ul> <li>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</li> <li>No drilling reported in this announcement.</li> </ul>
Drilling techniques	<ul> <li>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).</li> <li>No drilling reported in this announcement.</li> </ul>
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> <li>Method of recording and assessing on the sample is the sample is the sample is the sample is the sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>



Criteria	JORC Code explanation	Commentary
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>Geological descriptions were recorded by Ragnar Metals for each rock sample when collected by geologist.</li> </ul>
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 insitu 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>No drilling reported in this announcement.</li> <li>No sub-sampling completed for rock chip samples.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>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, four-acid digest for base metals ICP-AES and whole rock package by ICP-AES.</li> </ul>
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	• These assays verify and potentially upgrade previously reported historical rock sampling at the Hylleled prospect.
	<ul> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic)</li> </ul>	<ul> <li>No drilling reported in this announcement.</li> <li>No drilling reported in this announcement.</li> </ul>
	<ul> <li>Discuss any adjustment to assay data.</li> </ul>	Oxide conversions calculated for REE (see Data Aggregation Methods section)



Criteria	JORC Code explanation	Commentary
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>Location of rock samples by Ragnar Metals were recorded using a handheld GPS which is considered appropriate for reconnaissance sampling.</li> <li>SWEREF99TM</li> <li>Elevation data not collected from handheld GPS.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> </ul>	<ul> <li>Rock samples were taken at selected outcrops and historic iron occurrences and workings.</li> </ul>
	<ul> <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> </ul>	<ul> <li>Further sampling work is required to establish continuity of mineralisation.</li> </ul>
	<ul> <li>Whether sample compositing has been applied</li> </ul>	<ul> <li>No drilling or channel composite samples reported in this announcement.</li> </ul>
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>	<ul> <li>Reconnaissance rock sampling by Ragnar Metals was taken where outcrops are available. The orientation of magnetite-REE mineralisation is established to be oriented northwest-southeast (Strike 310-320 degrees) with steep dip to the northeast.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Ragnar Metals ensured that sample security was maintained to ensure the integrity of sample quality.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>No audits or reviews have been conducted for this release given the early stage of the project.</li> </ul>

# Section 2 Reporting of Exploration Results

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

Criteria	· · · · · · · · · · · · · · · · · · ·	Commentary
<i>Mineral tenement and land tenure status</i>	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.	<ul> <li>Exploration Permits Olserum North (2023:55) and Olserum North nr 2 (2023:118) are owned 100% by Ragnar Metals. The tenures are located in Bergslagen District within the Municipality of Sala on Map page 11G. The Permits are valid until 25/04/2026 &amp; 17/08/2026 respectively.</li> <li>There are no known impediments to operate in the licenses areas for early stage exploration work.</li> </ul>



Criteria	JORC Code	Commentary
Exploration done by other parties Geology	<ul> <li>explanation</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> <li>Acknowledgment and appraisal of exploration by other parties.</li> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>No other assays are reported in this announcement</li> <li>REE mineralisation style at each prospect are not well understood. However, the Geological Survey of Sweden</li> </ul>
Data aggregation methods	<ul> <li>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.</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> </ul>	<ul> <li>results are converted to stoichiometric oxide (REO) using element-to-stoichiometric oxide conversion factors.</li> <li>These stoichiometric conversion factors are stated in the table below</li> <li>Rare earth oxide is the industry accepted form for reporting rare earth metal assay results.</li> <li>Heavy Rare Earth Oxide (HREO) % refers to total of all HREO species divided by the total rare earth oxide (TREO) expressed as a percent.</li> <li>NdPr ratio refers to the % calculation of Nd<sub>2</sub>O<sub>3</sub>+Pr<sub>6</sub>O<sub>11</sub> / REO expressed as a percent.</li> <li>Element Conversion Factor Oxide Form Type</li> <li>Ce 1.2284 CeO2 Light</li> <li>Dy 1.1477 Dy2O3 Heavy</li> <li>Er 1.1435 Er2O3 Heavy</li> <li>Eu 1.1579 Eu2O3 Heavy</li> <li>Gd 1.1526 Gd2O3 Heavy</li> <li>Ho 1.1455 Ho2O3 Heavy</li> </ul>
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents reported in this announcement
Relationship between mineralisation	These relationships are particularly important in the	• Rock samples are mainly important examples of disseminated, vein and massive-style magnetite-REE mineralisation identified in the field.



Criteria	JORC Code explanation	Commentary
widths and intercept lengths	<ul> <li>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 (e.g. 'down hole length, true width not known').</li> </ul>	
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>	Appropriate maps and tables are included in the body of the Report.
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.	<ul> <li>No drilling reported in this announcement.</li> <li>The accompanying document is a balanced report of recent rock samples assays by Ragnar Metals.</li> </ul>
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</li> </ul>	<ul> <li>All meaningful and material exploration data available to the Company is disclosed in the body of this announcement.</li> <li>Airborne magnetic data (200m spaced) was purchased from the Sweden Geological Survey and data compilation and image processing was contracted to GeoVista Geophysical consultants based in Lulea, Sweden who provided Ragnar Metals with a small suite of industry-standard images including 1Vd, RTP, UC200m and Tilt_DER.</li> </ul>



Criteria		Commentary
Further work	<ul> <li>JORC Code explanation</li> <li>substances.</li> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not</li> </ul>	• Further work is described in the body of this announcement.
	commercially sensitive.	