

ASX Announcement 18 January 2023

# KINGSROSE ENTERS TRANSACTION ON THE BROWNFIELD RÅNA NICKEL-COPPER-COBALT PROJECT, NORWAY

Kingsrose Mining Limited (ASX: KRM) (**Kingsrose** or **Company**) is pleased to announce that it has entered into a transaction implementation agreement (**Transaction Implementation Agreement**) with Scandinavian Resource Holdings Pty Ltd (**SRH**) and Global Energy Metals Corporation (**GEMC**) for a staged investment into the brownfield Råna Nickel-Copper-Cobalt (Ni-Cu-Co) project (**Project**) and formation of a joint venture for the development and operation of the Project (**Transaction**).

# **Highlights**

- The Råna project has proven potential for discovery of massive sulphide Ni-Cu-Co mineralisation and is underexplored using modern deposit models and exploration methods.
- Excellent access to local infrastructure, located 37 kilometres by main road from the ice-free, deepwater Port of Narvik in Nordland County, Norway.
- The project includes the past producing, underground Bruvann Mine within a contiguous exploration licence holding of 25 square kilometres.
  - The Bruvann deposit included a small but high-grade (approximately 1 to 5% Ni) massive sulphide core, indicating that the intrusion generated high tenor nickel sulphide mineralisation.
  - Past production demonstrates the viability of operating in the region and the mine area remains designated for raw material extraction in the municipality land use zoning plan.
- Kingsrose has **identified three priority prospects** with a focus on exploration for high-grade nickel-copper-cobalt sulphide mineralisation:
  - Largely undrilled massive sulphide mineralisation outcrops at surface over a 1.6 kilometre zone at the Rånbogen prospect with historical rock chip samples up to 2.3% Ni and 3.2% Cu
    - Historical (2006) drilling at the southeastern part of Rånbogen returned a best intercept of 17.5 metres @ 0.53 % Ni, 0.12 % Cu, 0.05 % Co from 101 metres (SH004), including 2.5 metres @ 1.13 % Ni, 0.24 % Cu, 0.10 % Co and remains open.
  - Mineralisation at the past producing Bruvann Mine is open immediately along strike from mine workings and is adjacent to a >1km long, undrilled conductive body which may represent massive sulphide mineralisation. Offset styles of copper-rich mineralisation south of the mine are inferred from historical drill data in hole P-11-97 and have never been followed up:
    - 15.1 metres at 1.89% Cu from 148.6 metres, including 8.7 metres @ 2.35% Cu from 155.0
  - The prospective basal ultramafic part of the intrusion strikes over 8 kilometres and dips to the southeast within the licence holding. This has never been systematically explored.
- The Transaction Implementation Agreement allows for Kingsrose to earn up to 75% over 8 years, through staged expenditure up to a total of A\$15m.

Fabian Baker, Kingsrose Managing Director, commented "Råna is a very exciting nickel-copper-cobalt sulphide exploration project which complements Kingsrose's growing critical metals portfolio in the Nordics. Syn-orogenic mafic-ultramafic intrusions analogous to Råna host some of the highest-grade deposits



globally, such as Nova-Bollinger and Kabanga. Mineralisation at the Bruvann deposit provides proof of concept that the system is fertile and capable of producing high tenor magmatic nickel sulphide.

Exploration outside of the mine site is very immature, in that modern models of magmatic sulphide deposit formation and exploration techniques have not been applied. Kingsrose sees excellent potential for the discovery of additional high-grade massive sulphide bodies through exploration of the whole intrusive system, with a particular focus on basal and 'offset' styles of mineralisation which are common in these settings but have not been explored for historically. We have a focussed exploration program planned to rapidly advance our understanding of the geology and generate targets for drilling later in 2023.

Mr Baker continued "This transaction is testament to our M&A strategy in a market where high-quality nickel sulphide projects are difficult to come by. Nickel is essential in the electrification required to achieve a low carbon future and Europe needs to secure a sustainable domestic supply. With additional funds from the sale of Way Linggo, Kingsrose looks forward to advancing Råna alongside Penikat and Porsanger while continuing the search for additional assets to support Europe's green energy transition."

#### **Key Terms of Transaction Implementation Agreement**

The Transaction Implementation Agreement provides for the establishment of a new Norwegian joint venture company (**JV Company**) and for the Company to offset expenditure on the Project as consideration for shares in JV Company. The Company has paid a pre-completion deposit of A\$25,000 to SRH, additionally, Kingsrose will make payments in cash and Kingsrose shares to SRH on earn-in milestones as described below:

Completion	Milestone	Consideration
First (For 10% of shares in JV Company)	The incorporation of the JV Company with an issued capital of 90,000 JV Company shares with:  • 80,000 JV Company shares issued and allotted to SRH; and  • 10,000 JV Company shares issued and allotted to GEMC; and  SRH and GEMC transfer each of the Exploration Licences to the JV Company,  (First Milestone).	10,000 JV Company shares will be issued and allotted to the Company (First Milestone Shares) on payment by Kingsrose of NOK 140,000 into the capital of JV Company (A\$20,300 based on NOK:A\$ exchange rate of 0.145).  A\$30,000 to be paid by the Company to SRH.
Second (For 51% of shares in JV Company)  Kingsrose (or a related body corporate) (Manager), incurring expenditure of at least A\$3 million (minus the Licence Fees Amount) within 3 years from the date of First Completion including not less than:  • A\$1 million to include 2,000 metres of drilling by 31 December 2023; and		94,617 JV Company shares will be issued and allotted to the Company. 10,513 JV Company shares will be issued and allotted to GEMC. 1,000,000 KRM Shares will be issued and allotted to SRH.



Completion	Milestone	Consideration
	3,000 metres of drilling and preliminary metallurgist test work by 31 December 2024,  (Second Milestone).	
Third (For 65% of shares in JV Company)	Expenditure by the Manager of at least an additional \$4 million within 2 years following Second Completion ( <b>Third Milestone</b> )	103,391 JV Company shares will be issued and allotted to the Company. 3,500,000 KRM Shares will be issued and allotted to SRH. \$250,000 to be paid by the Company to SRH.
Fourth (For 75% of shares in JV Company)	Expenditure by the Manager of at least an additional \$8 million within 3 years following Third Completion (Fourth Milestone)	10,000 JV Company shares will be issued and allotted to the Company.  A cash payment of \$750,000 to be paid by the Company to SRH.

# Completion of the Transaction:

- is not subject to the approval of the Company's shareholders (accordingly the KRM Shares will be issued pursuant to the Company's Listing Rule 7.1 placement capacity); and
- will occur in four stages, with each completion and payment and/or issuance of consideration subject to satisfaction of certain milestones on the terms set out in the Schedule to this announcement.

GEMC shall be free carried to completion of the Second Milestone, thereafter GEMC shall be required to contribute pro-rata (10%) to expenditure on the Project in accordance with a work program and budget to be determined by Kingsrose as Manager of the Project. In the event GEMC elects not to contribute its funding share, Kingsrose has the first right to provide such funding and acquire additional shares in JV Company.

The Project is subject to three net smelter royalty deeds of one percent payable by JV Company to each of GEMC, Electric Royalties Corp., and Chincherinchee Pty. The Transaction Implementation Agreement requires SRH and GEMC to enter into a right of first refusal deed granting the Company a right of first refusal to acquire the right, title and interest in the Chincherinchee Royalty and the 0.5% buyback option in the GEMC royalty.

#### **Exploration Potential and Work Program**

Initial field observations by Kingsrose indicate that Råna is a mafic-ultramafic chonolith comprising multiple complex magmatic phases, with internal characteristics that are consistent with a conduit-style of emplacement. The basal ultramafic intrusive units occur mostly at the northwestern part of the intrusion



which is controlled by SRH, and is the most prospective horizon for high tenor, massive sulphide nickel mineralisation.

- Kingsrose interprets the mineralised intrusions at Bruvann and Rånbogen to be chonoliths forming
  part of a larger, multi-phase intrusive complex. Chonoliths are pipe like intrusions which may have
  short lateral but long down dip continuity.
- Massive sulphide mineralisation typically occurs at the base of a chonolith and in the immediate
  footwall as 'offset' bodies of massive sulphide mineralisation. Exploration for these styles of
  mineralisation has not been systematically undertaken historically at Råna and these may be blind
  at surface, compromising detection by traditional methods.
- Historical work focused predominantly on near mine exploration of outcropping mineralisation at Bruvann with limited to no application of modern exploration models for chonolith hosted magmatic sulphide deposits.
- Deep penetrating AMT (Audio Magnetotelluric) geophysical surveys are planned to explore for conductive bodies from surface to more than 600 metres deep, which may host massive sulphide mineralisation.
- Airborne magnetic geophysical surveys will be used to model intrusion morphology.
- Detailed mapping, core logging and XRF measurements for lithogeochemical characterisation will be used to generate a three dimensional geological model and identify prospective intrusive units.
- Drilling is expected to commence later in the Norwegian summer.
- Massive sulphide outcrops with high nickel tenors at Bruvann and Rånbogen demonstrate fertility
  and, with 8 kilometres of largely untested strike along the northern intrusion margin, Kingsrose
  considers that there is scope for a significant scale discovery.

# **Overview of the Project**

#### **Location and Tenure**

The Råna project is located Nordland County, Norway, 37 kilometres west by road from the town of Narvik and a deep-water, ice-free port which ships approximately 18-20 million tonnes of cargo per year, mostly from Swedish iron ore operations<sup>1</sup>. The Project comprises four contiguous exploration licences totalling 25 square kilometres, owned 90% by Scandinavian Resource Holdings and 10% by Global Energy Metals Corp. Net smelter royalties totalling 3% apply to the Project in addition to a 0.5% net smelter royalty under Norwegian mineral law. The licences were granted in January 2019 and are valid through to 2026.

# History

Exploration has been carried out sporadically at the Råna intrusion since at least 1880 when sulphides were discovered in the south at Eiterdalen. Exploration by Stavanger Staal and the NGU (Norwegian geological survey) in the 1970s and 1980s focused on Bruvann, including 33,769.7 metres of drilling and various ground based geophysical surveys which defined the Bruvann deposit. A private company, Nikkel og Olivin and Outokumpu conducted mining at Bruvann from 1989 until 2002, initially through a small open pit and later underground mining. Production is reported to have totalled 8.5 million tonnes at 0.5 % Ni, 0.1 % Cu and 0.03 % Co from approximately 25 kilometres of underground workings, with life of mine recoveries reported as 74 % Ni, 85 % Cu and 62 % Co.

<sup>&</sup>lt;sup>1</sup> Narvik Havn KF, About Narvik Harbour, viewed 14.01.2023, https://www.narvikhavn.no/om-narvik-havn.aspx



Scandinavian Highlands explored the northern part of the intrusion from 2004-2013, carrying out surface geochemical sampling and a SkyTEM geophysical survey over the whole licence area before testing Arnes and Rånbogen with 16 diamond drill holes for 4,000 metres. The SkyTEM survey identified several strong, near surface conductors at Bruvann, Arnes and Rånbogen, however the effectiveness of this method is limited by the steep topography and only has a depth of penetration of approximately 100 metres below surface.

#### Geology and Mineralisation

The Råna mafic-ultramafic layered intrusion outcrops over 9 by 11 kilometres and comprises basal ultramafic peridotite and pyroxenite sills with upper, more mafic and voluminous gabbronorite and quartz norite, dated at 436.7 Ma and emplaced into Cambrian gneisses and argillaceous metasedimentary rocks with localised graphitic horizons.

Mineralisation typically occurs in the basal ultramafic units which host the highest tenor nickel sulphides and outcrop mainly in the northwest part of the intrusion. Sulphide mineralisation is also observed in the upper gabbronorites albeit of lower nickel tenor. Magmatic sulphide is observed at several prospects along the northern margin of the intrusion controlled by SRH, including the Bruvann Mine, Rånbogen and Arnes prospects.

#### Bruvann Deposit

Known mineralisation at Bruvann is largely mined out however historical drill core is available for inspection and provides an important source of information for understanding the controls on mineralisation. Historical drill data indicates that the mineralisation remains open along strike to the west and east, and that a low grade disseminated halo exists adjacent to the mine workings.

Mineralisation occurs from surface and has been drilled to at least 500 metres below surface in the west, where the intrusion and mineralisation is overlain by gneiss. The Bruvann deposit comprised a 10 to 45 metres thick, peridotite hosted, southwest dipping zone of disseminated sulphide which occurs over a strike of 1,000 metres, overlying a cylindrical, higher grade semi-massive to massive sulphide zone at the contact between peridotite and gneiss. This basal sulphide-rich zone typically exceeded 1% Ni and contained up to 5.87% Ni, with thickness ranging from 2-25 metres, strike of over 500 metres and is inferred to remain open along strike to the east and west. Sulphides comprise pentlandite, sometimes occurring as coarse grains and loops in massive zones, together with pyrrhotite and chalcopyrite.

Offset styes of sulphide mineralisation within the host gneiss are inferred from historical drill data, including an unmined copper rich historical drill intercept immediately south of the mine which remains open, in hole P-11-97:

- 1.4 metres at 4.3 % Cu from 94.4 metres; and
- 15.1 metres at 1.89 % Cu from 148.6 metres, including 8.7 metres @ 2.35 % Cu from 155.0 metres.

A 900 metre long, east-west conductor is observed at the southern edge of the Bruvann mine and a second, 1.1 kilometre long north-south oriented conductor is observed to the north of the mine. Both conductors are proximal to the mapped contact between the intrusion and gneiss, and were historically interpreted as being related to graphitic units in the wall rock. The east-west conductor is immediately adjacent to the mined massive sulphide at Bruvann, and the north-south oriented conductor has never



been followed up. Kingsrose considers that the north-south conductor warrants further exploration to test whether massive sulphides are present.

## Rånbogen Prospect

Rånbogen is located 4.5 kilometres northeast of the Bruvann Mine and is defined by a 1.6 kilometre long zone of anomalous nickel-copper in soils which coincides with several mapped ultramafic sills and lenses of outcropping massive and disseminated sulphide mineralisation.

Historical rock chip sampling from this zone includes 30 samples exceeding 1 % Ni, with a maximum of 2.3 % Ni, coincident with shallow conductors identified by the 2006 SkyTEM survey. In 2006, the southeastern part of the Rånbogen prospect was drilled by SRH with 10 holes totalling 2431.4 metres to a maximum depth of 371.2 metres downhole. There are also two historical holes at the northern part of Rånbogen totalling 664 metres located 200 metres northeast of the mineralised outcrops. Seven holes intercepted disseminated sulphide mineralisation with narrow zones of massive sulphide which remain open (Table 1). However, the orientation of mineralised zones was not well constrained, no follow up drilling has been conducted and the potential extensions to depth have not been adequately explored with appropriate geophysical methods such as AMT or EM (electromagnetic) surveys.

TABLE 1: Significant historical drill intercepts from the Rånbogen prospect.

Hole ID	From (m)	To (m)	Interval (m)	Ni (%)	<b>C</b> u (%)	<b>Co</b> (%)
SH-004	101.0	118.5	17.5	0.53	0.12	0.05
incl	102.5	105.0	2.5	1.13	0.24	0.10
SH-006			No significant	intercept		
SH-007	86.0	95.0	9.0	0.25	0.06	0.03
SH-008	121.0	130.0	9.0	0.27	0.07	0.02
	162.0	168.5	6.5	0.44	0.10	0.04
incl	166.9	168.0	1.1	1.76	0.31	0.17
SH-010	140.0	150.0	10.0	0.25	0.06	0.02
	155.5	156.9	1.4	1.53	0.29	0.14
SH-012	124.9	125.5	0.6	1.15	0.38	0.15
SH-014			No significant	intercept		
SH-015	29.0	36.0	7.0	0.26	0.09	0.02
incl	31.7	32.2	0.5	1.17	0.60	0.11
	153.0	191.0	38.0	0.25	0.07	0.02
SH-016	165.0	176.0	11.0	0.23	0.06	0.02
SH-017			No significant	intercept		

#### Notes:

- Downhole interval is reported, due to the early stage of exploration and lack of detailed structural data, it is not possible to estimate true widths
- Significant intercepts were calculated using a 0.2% total nickel lower cut-off as historical nickel sulphide analyses were not conducted

#### Arnes Prospect

Arnes is located 2.5 kilometres north of the Bruvann Mine and comprises of upper pyroxenite grading into lower olivine peridotite, with irregular zones of disseminated sulphide and rare stringers of massive



sulphide. Metal tenor at Arnes is low but historical drilling has intercepted broad zones of anomalous nickel sulphide mineralisation up to 48 metres thick grading 0.25 % Ni from 34 metres downhole (SH-009). The base of the intrusion has not been intercepted at Arnes and the area remains prospective for discovery of blind massive sulphide mineralisation toward the base of the conduit.

TABLE 2: Significant historical drill intercepts from the Arnes prospect.

ID	From (m)	To (m)	Interval (m)	Ni (%)	Cu (%)	Co (%)
SH-001						
SH-002			NIa ai ausifi a aust	:		
SH-003		No significant intercept				
SH-005						
SH-009	34.0	82.0	48.0	0.25	0.04	0.01
	159.0	189.0	30.0	0.24	0.03	0.01
	270.0	312.0 42.0 0.24 0.04 0.01			0.01	
SH-011	56.0	100.0	44.0	0.23	0.04	0.01
	187.0	209.0	22.0	0.22	0.03	0.01

#### Notes:

- Downhole interval is reported, due to the early stage of exploration and lack of detailed structural data, it is not possible to estimate true widths
- 2. Significant intercepts were calculated using a 0.2% total nickel lower cut-off as historical nickel sulphide analyses were not conducted



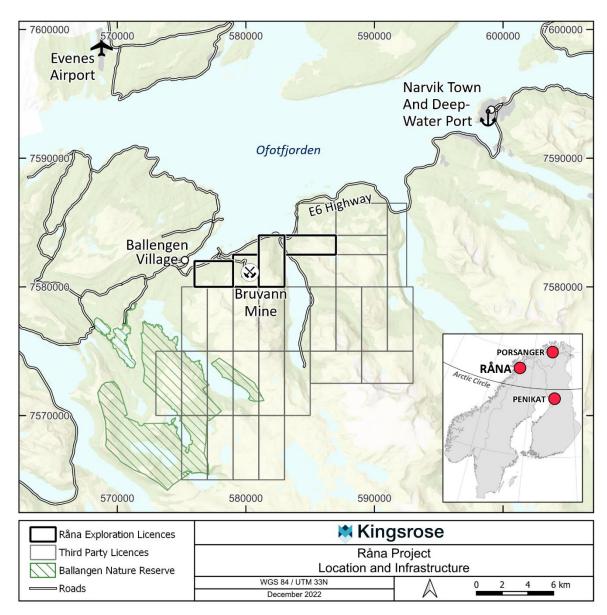


Figure 1: Location of the Rana project and proximity to local infrastructure.



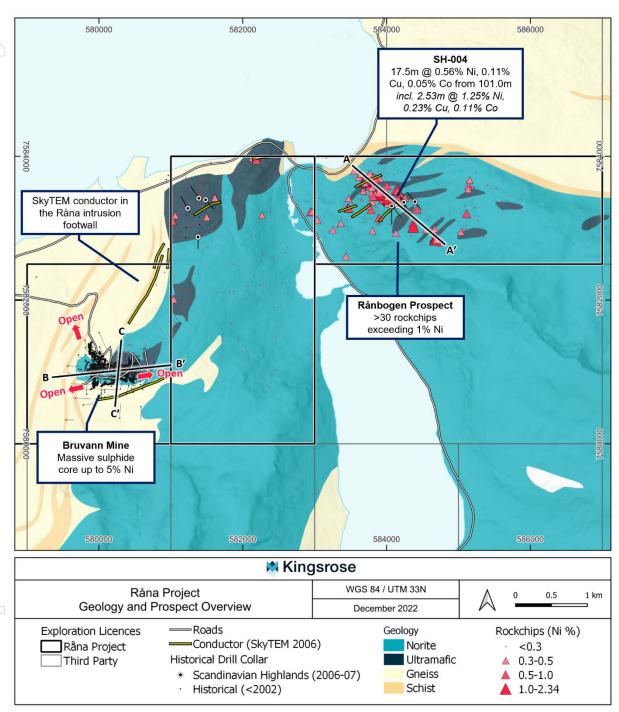


Figure 2: Rana exploration project.



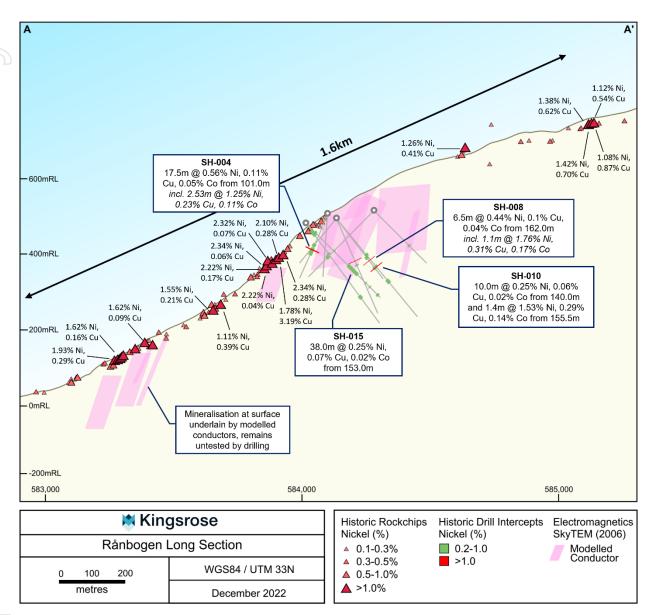


Figure 3: Long section at Rånbogen through A-A' (Figure 2), viewed east.



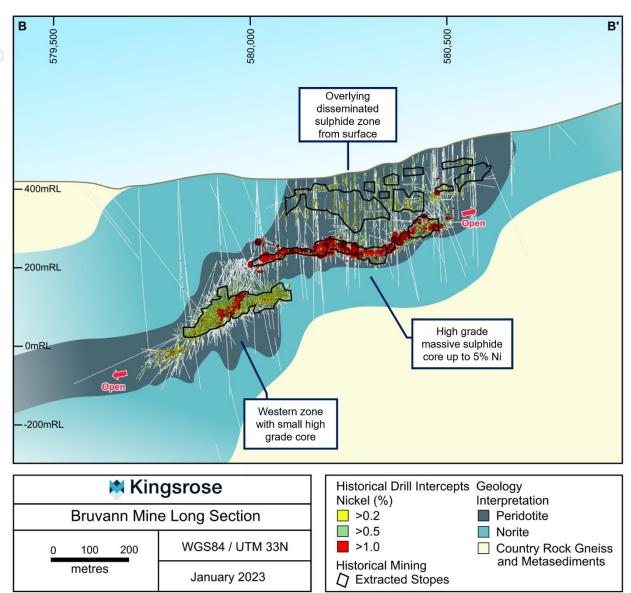


Figure 4: Long section at Bruvann Mine through B-B' (Figure 2), viewed north and showing historical, pre-mining drilling.



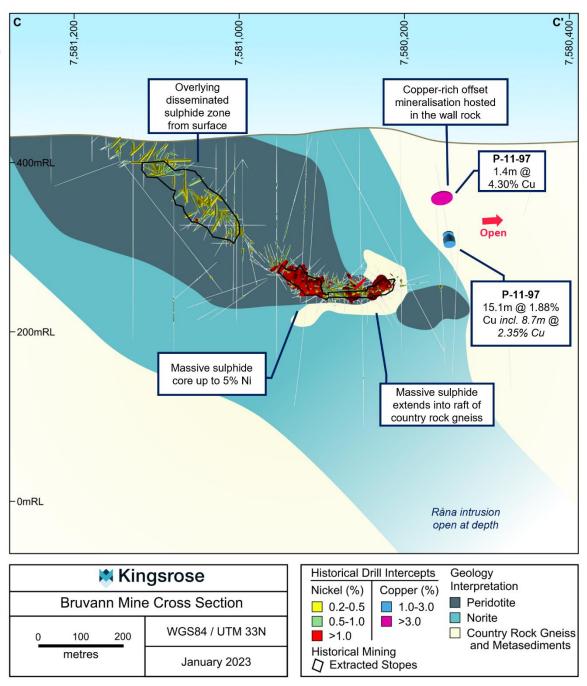


Figure 5: Cross section at Bruvann Mine through C-C' (Figure 2) viewed east and showing historical, pre-mining drilling.





Figure 6: Historic drill core photos. Top left: massive pyrrhotite-pentlandite with pentlandite occurring as coarse loops (Bruvann BH-265-125, 1m @ 3.08 % Ni); Top right: massive pyrrhotite-pentlandite (Rånbogen SH-004, 0.35m @ 2.52 % NiS); Bottom left: net-textured sulphides in poikilitic harzburgite cross-cut by soft-walled sulphide vein (Bruvann, DH1061-01, 2m @ 0.7% Ni); Bottom right: massive sulphide vein breccia cutting olivine pyroxenite (Bruvann, BH-265-125, 1.25m @ 1.6 % Ni).



Figure 7: Massive sulphide in outcrop at Rånbogen where historical rock chip samples up to 2.34% Ni are reported.

#### - ENDS -

This announcement has been authorised for release to the ASX by the Board.

For further information regarding the Company and its projects please visit www.kingsrosemining.com



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# **About Kingsrose Mining Limited**

Kingsrose Mining Limited is a leading ESG-conscious and technically proficient mineral exploration company listed on the ASX. In 2021 the Company commenced a discovery-focused strategy, targeting the acquisition and exploration of Tier-1 critical mineral deposits, that resulted in the acquisition of the Penikat and Porsanger PGE-Nickel-Copper projects in Finland and Norway respectively.

# **Forward-looking statements**

This announcement includes forward-looking statements, including forward looking statements relating to the future operation of the Company. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of the Company, which could cause actual results to differ materially from such statements. The Company makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement to reflect the circumstances or events after the date of this announcement.

You are strongly cautioned not to place undue reliance on forward-looking statements, particularly in light of the current economic climate and the significant volatility, uncertainty and disruption caused by COVID-19.

#### Competent person's statement

The information in this report that relates to Exploration Results is based on information compiled under the supervision of Andrew Tunningley, who is a Member and Chartered Professional (Geology) of the Australasian Institute of Mining and Metallurgy and is Head of Exploration for Kingsrose Mining Limited. Mr Tunningley has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves." Mr Tunningley consents to the inclusion in this report of the matter based on his information in the form and context in which it appears.

# **Appendices**

JORC Code Table 1 for the Råna Project



# Appendix 1 – JORC Code Table 1 for the Råna Project

# Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralization that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg 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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Historical Drilling</li> <li>Historical drilling results from Outokumpu Oy and Scandinavian Highlands AS relate to split drill core. This work was not completed under the supervision of the CP and measures taken to ensure sample representivity and appropriate calibration of equipment are not known.</li> <li>Historical drill core sampling is observed to have been completed at semi-regular downhole intervals with breaks at major changes in lithology and mineralisation styles. Sample intervals from Outokumpu drilling range from 0.02 to 55.2 meters, with an average sample interval of 1.75 metres.</li> <li>Sample intervals from Scandinavian Highlands AS drilling range from 0.13 to 4.00 meters, with an average sample interval of 1.73 metres.</li> <li>One half of the split core was sampled and one half was retained in the core box. The samples were submitted for crushing and pulverising prior to analysis. Outokumpu assayed rocks at Outokumpu's Geoanalytical laboratory in Finland as well as the onsite Nikkel Og Olivin laboratory. Samples were analysed for total nickel using unspecified acid digestion methods (Ekberg, 1997, NGU report No. 5508).</li> <li>Historical rockchip sampling</li> <li>Details of historical rockchip sampling methodology are not known</li> <li>Kingsrose Verification Sample intervals mirrored historical sample intervals. Sample intervals were at nominal intervals of 1 metre with breaks at changes in lithology or mineralisation style.</li> <li>Samples weighing between 0.3 and 1.4 kg were pulverised to produce charges for fire assay and four-acid digest with ICP-MS.</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Historical Drilling     Historical drilling by Outokumpu Oy was between 32 and 36 mm diameter core drilling. Drill core was not orientated.



Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Outokumpu drill recoveries are not known. Kingsrose observed select archived historical drill core and the drill core was intact with no material zones of core loss observed.</li> <li>Scandinavian Highlands AS drill recoveries were recorded in drill logs and demonstrate high (&gt;95%) core recoveries. Method of recording sample recovery is not known.</li> <li>Observations on historic drill core during Kingsrose's due diligence work indicates that the drill core is very competent, and recoveries were generally above 95%. However not all mineralised intervals have been observed by Kingsrose and further re-logging of historic drill core is required.</li> <li>The relationship between historical sample recovery and grade has not been reported.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Drill core samples were previously logged to a basic level of geological detail.</li> <li>Future drilling will be required to obtain the level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Historical logging was qualitative.</li> <li>There is no photographic record of historic core.</li> <li>All historic drill core (100%) was logged by Outokumpu Oy and Scandinavian Highlands AS.</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 subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, incl. 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>Historical Sampling</li> <li>Historical operators used a mechanical splitter to split the historic drill core. Splitting the core does not result in exact halves being produced and may introduce some uncertainty as to the representivity of the historic sampling.</li> <li>Quality control procedures employed by historical operators are not available.</li> <li>No results of duplicate or second-half sampling are reported by historical operators and it is not known if this was completed.</li> <li>Historical sample sizes are considered appropriate to the grain size of the material being sampled.</li> <li>Kingsrose Verification Sampling</li> <li>Kingsrose drill core verification samples were prepared using ALS code PREP-31Y, crushing entire sample to &gt;70% passing 2mm and rotary split off 250g using a rotary splitter. Split was pulverised to &gt;85% passing 75 micron.</li> <li>Blanks and certified reference materials were inserted into the sample stream at a rate of 1 blank and standard for every 20 samples.</li> </ul>



	Criteria	JORC Code explanation	Commentary
9			Results of Kingsrose sampling versus historic sampling can be considered as field duplicates and show a good degree of repeatability (typically less than 25% variance from the original assay result)
			<ul> <li>Kingsrose samples were analysed by lead fire assay with ICP-AES finish for Au, Pt and Pd (ALS code PGM-ICP24) as well as 48 element four acid total digestion (ME-MS61). Significant intercepts which averaged &gt;1.0 g/t 2E were also submitted for rhodium analysis (ALS Code Rh-MS25) and Nickel Sulphide analysis (ALS Code NI-ICP05). ME-MS61, PGM-ICP24 and Rh-MS25 are considered as total techniques. Ni-ICP05 is a partial technique designed to preferentially break down only the sulphide minerals to provide an approximation of the proportion of nickel present as sulphides, but some variation can occur due to sample mineralogy and the reaction of byproducts.</li> <li>ALS routinely insert certified reference and blank material as part of their internal quality control procedures and to ensure acceptable levels of accuracy and precision are achieved. These results have been reviewed by Kingsrose.</li> <li>Samples sizes are appropriate to the grain size of the material being sampled.</li> </ul>
	Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis incl. instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The details of historic assaying and laboratory procedures are not known.</li> <li>Quality control procedures employed by Outokumpu Oy are not known and it is not possible to determine the levels of accuracy and precision for historic assays reported.</li> <li>Verification sampling by Kingsrose is required to ascertain the reliability of historic assays.</li> </ul>
	Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	Kingsrose has reassayed select historical drill intercepts and results are pending. Historical drill core has been observed and confirms the presence of disseminated to massive sulphide mineralisation composed of pentlandite, chalcopyrite and pyrrhotite. The observed sulphide mineralised intervals correspond with mineralised intervals reported in historical assay sheets.
		Discuss any adjustment to assay data.	<ul> <li>There are no twin holes.</li> <li>Historical data was recorded on hard copy logs. Historical entry, verification, storage and protocols are not known.</li> </ul>
			There has been no adjustment to assay data.



Criteria	JORC Code explanation	Commentary
Location of data points	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.     Specification of the grid system used.     Quality and adequacy of topographic control.      Data spacing for reporting of Exploration Results.	Methodology and quality of surveys used to locate historical drill holes, trenches and mine workings are not known. However, several historical drill holes have been located in the field using handheld GPS at the correct locations indicated in historical reports.      The grid system used is ETRS89, Zone 33.      Topographic control is by publicly available LIDAR mapping data and is considered adequate for reporting of Exploration Results.  Historical exploration drill holes were located 20 to
spacing and distribution	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.  Whether sample compositing has been applied.	No Mineral Resource or Ore Reserve estimations are being reported.      No sample compositing has been applied.
Orientation of data in relation to geological structure	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> <li>Historical drilling was angled perpendicular to the mapped mineralisation at surface to achieve unbiased sampling. Given the early stage of exploration Rånbogen the true width of mineralisation cannot be estimated.</li> <li>Localised deviations in the dip and strike of mineralisation may cause overestimation of true thicknesses given the early stage of exploration, and future drilling is required to better understand the morphology of the deposit.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Historical procedures to ensure sample security are not known.</li> <li>Kingsrose verification sampling was performed by Kingsrose employees in a secure logging facility, and samples were shipped by courier in sealed containers to the sample preparation laboratory. Samples are checked on arrival for signs of tampering before being accepted into the custody of the laboratory.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	There have been no audits of sampling techniques and data.

# Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Mineral	Type, reference name/number, location and	The project comprises four contiguous licences
tenement and	ownership incl. agreements or material issues	totalling 25km², located in Nordland County,
land tenure	with third parties such as joint ventures,	northern Norway. The exploration licences were
status	partnerships, overriding royalties, native title	granted in March 2019 and expire March 2026,



	Criteria	JORC Code explanation	Со	mmentary		
9		interests, historic sites, wilderness or national park and environmental settings.		with potentia application (	ll for up to 3 year ex March 2029)	tension on
		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.			tion licences are reg peneficial interest ow SRH.	
				% NSR held purchased b 2021; 1 % N	es totalling 3.5 % in p by Chincherinchee y GEMC for 3.3m sh SR purchased by El as and \$100k cash, a	Pty; 1 % NSR nares in July ectric Royalties
				requirement Mining Act: I one week no soil/stream/or requires a two drilling, trend waived when Directorate f landowner a other affecte the municipal governor.  The project is	exploration there is a in accordance with a Non-invasive surface offication (e.g. geopleship sampling) and in wo month notification ching). The notification or Mineral Managen and the user of the grad parties. The notificality, county municipals soperated under a sound of the second of the secon	the Norwegian work involves a hysics, hvasive work period (e.g. on period may be nsent from the nent, the round and any cation is sent to ality and county
				following mil	estones in place: Milestone	Consideration
			F (I	For 10% of hares in JV Company)	The incorporation of the JV Company with an issued capital of 90,000 JV Company shares with:  • 80,000 JV Company shares issued and allotted to SRH; and • 10,000 JV Company shares issued and allotted to GEMC; and	10,000 JV Company shares will be issued and allotted to the Company (First Milestone Shares) on payment by Kingsrose of NOK 140,000 into the capital of JV Company (A\$20,300 based on NOK:A\$ exchange rate of 0.145).
					transfer each of the Exploration Licences to the JV Company,	paid by the Company to SRH.



Criteria	JORC Code explanation	(	Commentary		
				(First Milestone).	
			Second (For 51% of shares in JV Company)	Kingsrose (or a related body corporate) (Manager), incurring expenditure of at least A\$3 million (minus the Licence Fees Amount) within 3 years from the date of First Completion including not less than:  A\$1 million to include 2,000 metres of drilling by 31 December 2023; and 3,000 metres of drilling and preliminary metallurgist test work by 31 December 2024,  (Second Milestone).	94,617 JV Company shares will be issued and allotted to the Company.  10,513 JV Company shares will be issued and allotted to GEMC.  1,000,000 KRM Shares will be issued and allotted to SRH.
			Third (For 65% of shares in JV Company)	Expenditure by the Manager of at least an additional \$4 million within 2 years following Second Completion (Third Milestone)	103,391 JV Company shares will be issued and allotted to the Company.  3,500,000 KRM Shares will be issued and allotted to SRH.  \$250,000 to be paid by the Company to SRH.



Criteria	JORC Code explanation	Commentary
		Fourth  (For 75% of shares in JV Company)  Company)  Expenditure by the Manager of at least an additional \$8 million within 3 years following Third Completion (Fourth Milestone)  Expenditure by the Manager of at least an additional shares will be issued and allotted to the Company.  A cash payment of \$750,000 to be paid by the Company to SRH.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>1880-2002: Historical exploration and mining</li> <li>The following is summarised from Jebens, 2013:</li> <li>Small scale artisanal mining at Rana dates back to 1880.</li> <li>Between 1915 and 1937, 1299 meters of drilling was completed by Bjørkåsen Gruber and Raffineringsverket Kristiansand.</li> <li>A 700 metre drift and 4035 metres drilling was completed during the Second World War (operator unknown)</li> <li>Between 1970-1975 Stavanger Steel and the Norwegian Geological Survey (NGU) completed 24,743 metres of drilling and 'geophysical surveys'</li> <li>In 1989 Nikkel og Olivin AS, a private Norwegian company, commenced mining</li> <li>In 1993 Outokumpu bought Nikkel og Olivin AS and operated the mine until it closed in 2002.</li> <li>The mine is reported to have produced 8.5 Mt at 0.52% Ni in total.</li> <li>2002-2007: Exploration</li> <li>In 2004 the project was explored by Scandinavian Highlands AS, a private company. Work included a 185 line km SkyTEM geophysical survey, 2km² ground magnetic survey, 4000 soil samples and 400 rock chip samples</li> <li>In 2006 Scandinavian Highlands AS completed 17 diamond drill holes for 3982.90 metres at the Rånbogen and Arnes prospects.</li> <li>2019-current</li> <li>In 2019 Scandinavian Resource Holdings acquired the exploration rights to 25km² of the Rana intrusion including the Bruvann mine, Rånbogen and Arnes prospects.</li> </ul>



	Criteria	JORC Code explanation	Commentary
9	Geology	Deposit type, geological setting and style of mineralisation.	The Råna intrusion (436.9 +1 -2 Ma) is a large (~11km east to west x 9km north to south, in total, approximately 70 km²) mafic-ultramafic intrusion 3,800m thick emplaced into argillaceous metasediments during the Scandian orogeny.
			The Råna intrusion morphology shows internal characteristics that are consistent with a conduit- style of emplacement such as possible compartmentalisation into separate "sub-sills" defined by zones or screens of xenoliths.
			The upper parts of the intrusion appear to be more massive in their character, thicker and possibly more laterally extensive than the lower, more ultramafic section. The intrusion has several indicators of emplacement as a relatively aqueous magma, including ubiquitous phlogopite, melt patches, and anastomosing veins and pegmatites.
			Sulphide mineralisation is located at several localities forming isolated bodies within the lower part of the intrusion. Mineralisation occurs as disseminated, net textured semi-massive and massive styles, composed of pyrrhotite, chalcopyrite and pentlandite. Rare pentlandite loops are observed in the massive mineralisation.
			<ul> <li>Mineralisation at the Bruvann mine occurs over a zone of at least 600 by 500 by 500 metres at the contact between peridotite-pyroxenite and the gneiss footwall, locally compartmentalised into the intrusion as large xenoliths.</li> </ul>
			Rånbogen is defined by a 1.4km long zone of anomalous nickel-copper in soils which coincides with several mapped zones of ultramafic sills and outcropping zones of massive and disseminated sulphide mineralisation. Historical rock chip sampling from this prospect includes 30 samples exceeding 1% Ni and up to 2.3% Ni, coincident with shallow conductors identified from the 2006 SkyTEM survey. In 2006, the southeastern part of the Rånbogen prospect was drilled by SRH with 10 holes totalling 2431.4 metres. All holes intercepted disseminated sulphide mineralisation with narrow zones of massive sulphide which remain open. At both prospects, mineralisation occurs from surface and is largely unweathered with only localised zones of minor oxidation.
			The intrusion is largely non-deformed and unaltered, with only localised patchy actinolite- tremolite alteration in pyroxenite units.
	Drill hole Information	A summary of all information material to the understanding of the exploration results incl. a tabulation of the following information for all Material drill holes:	Kingsrose has not completed any drilling at the property.
		easting and northing of the drill hole collar	



	Criteria	JORC Code explanation	Commentary
D		<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
	Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high-grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Significant intercepts from historic drill holes are reported as weighted averages.</li> <li>Significant intercepts are reported using a lower cut off of 0.2 % nickel.</li> <li>No metal equivalent values are reported.</li> </ul>
	Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>All intercepts are reported as downhole lengths.</li> <li>At the Rånbogen prospect, the geometry of mineralised zones are not well understood due to the early stage of exploration and only down hole length is reported. True width is 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>	Maps and sections are provided 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.	Significant intercepts from historical drilling have been reported. The historical drilling results were used to justify historical mining which occurred from 1989 to 2002.
	Other substantive exploration data	Other exploration data, if meaningful and material, should be reported incl. (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment;	Production from Bruvann Mine is reported to have totalled 8.5 Mt @ 0.5 % Ni, 0.1 % Cu and 0.03 % Co from approximately 25km of underground workings, with life of mine recoveries reported as 74% Ni, 85 % Cu and 62 % Co.



Criteria	JORC Code explanation	Commentary
	metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, incl. the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Kingsrose intends to complete mapping, relogging of historical drill core and pXRF analysis of surface exposures and historical drill core in order to build a 3D geological and lithogeochemical model of the intrusion.</li> <li>A combination Audio Magnetotelluric (AMT), electromagnetic (EM) and magnetic geophysical surveys are planned to assist with geological interpretation and identification of conductive bodies which may represent massive sulphide mineralisation.</li> <li>A minimum of 2000 metres drilling is required to be completed before the end of December 2023 to maintain the JV agreement</li> </ul>