

# Karora Resources Announces Positive Nickel PEA for Beta Hunt Mine Producing 9,400 Payable Nickel Tonnes and Base Case Pre-Tax IRR of 105%

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TORONTO, Aug. 12, 2022 - [Karora Resources Inc.](#) (TSX: KRR) (OTCQX: KRRGF) ("Karora" or the "Corporation") is pleased to announce the positive results of the Preliminary Economic Assessment ("PEA") for Nickel Resources at its Beta Hunt Mine in Western Australia.

Paul Andre Huet, Chairman & CEO, commented: "The PEA highlights the robust economics and by-production credit potential from nickel production from the Beta Hunt Mine. This PEA is based on just our initial nickel resource estimate at Karora which we expect to expand as drilling continues. The initial results from the PEA are tremendous, outlining a very low capex project with strong leverage to nickel prices in a macro environment potentially poised for price appreciation in the coming years as vehicle demand scales. Karora is now in a very unique position, boasting strong gold production growth coupled with our nickel by-product potential over the next several years - an enviable position to be in.

I look forward to the ramp-up of nickel production at Beta Hunt beginning in 2023 and advancing the excellent exploration potential to add to the resource base. The PEA base case, using our January 31, 2022 resource, supports an 8-year mine to produce 9,435 payable nickel tonnes at a net AISC<sup>1</sup> of A\$16,946 per tonne of nickel sold (US\$12,371 per tonne). On an average annual basis, production is forecasted to increase considerably from the 450 - 550 tonnes we expect to produce.

The total capital investment is estimated to be a very low A\$18.7 million, with just over A\$7 million deployed in the first year yielding a very robust IRR of 105% for the base case (pre-tax and assuming a US\$19,500 per tonne nickel price) and 232% for the upside case (pre-tax and assuming US\$25,000 per tonne nickel price - in line with consensus nickel pricing). On a per ounce basis, our gold AISC costs have the potential to be reduced by A\$80 to A\$100 per ounce sold using the base case assumptions.

In my view, the PEA is an excellent starting point for realizing the full potential for a revitalized nickel production plan at Beta Hunt. I believe we are just scratching the surface of what I expect will be a growing by-product credit contribution from nickel at Beta Hunt for many years to come.

It is important to remind ourselves that Beta Hunt was a Nickel mine for over 40 years and produced over 60,000 tonnes of nickel based on a very large nickel resource system. With the 50C Trend and Gamma Block discovery now part of our Mineral Resources, we are looking forward to continued drill definition work along the ~2.6km strike length to our property boundary. A particular interest with respect to potential resource expansion is historic surface drill hole LD4022 which intersected 9.3% (downhole) of 11.4% nickel, located 400 metres southeast along strike beyond the margin of the January 31, 2022 Mineral Resource (see Karora news release dated May 11, 2022). As we extend our BRI exploration drive south into the Gamma Block, we are very much looking forward to drill testing what has the potential to be another very large system."

Highlights of the Beta Hunt Nickel PEA:

- **Strong Economics on Initial Resource:** Base case results (nickel price of US\$19,500/t) yields a pre-tax NPV<sub>5%</sub> of A\$95.2 million and IRR of 105%. Upside case results, closer to nickel consensus pricing of US\$25,000/t yields a pre-tax NPV<sub>5%</sub> of A\$149.2 million and IRR of 232%.
- **Leverage to Nickel Prices:** A 20% increase in the nickel price increases pre-tax NPV<sub>5%</sub> to A\$95.2 million, or 66% to the Base Case.
- **Low-Cost:** Nickel net C1 cash costs are expected to be A\$14,542/t. Base Case Net AISC<sup>1</sup> costs are expected to be A\$16,946/t. On a per gold ounce produced basis, this equates to an approximate annual average of A\$80 to A\$100 per ounce.

- **Upside Potential:** The Beta Hunt Nickel Mineral Resource occurs in two main blocks, the Beta Block and Gamma Block, both of which have significant potential for Mineral Resource additions, including the 50C nickel trend where continuous mineralization has been defined over 800 metres in strike length, with the potential to extend up to 2.6 km in strike length. The current PEA results are based on the current Beta Hunt Nickel Mineral Resource, with significant expansion potential remaining.
- **Nickel drilling:** Nickel-dedicated drilling for the remainder of the year will comprise both resource definition to upgrade the 40C and 50C Mineral Resource and exploration drilling targeting the 44C and 90C nickel troughs. The 44C is the position of the 40C trough, offset and north of the Alpha Island Fault and west of the Western Flanks gold deposit. The 90C represents the interpreted offset extension of the Beta West mineralization previously mined by Consolidated Minerals. The 44C and 90C are untested by existing drilling.

1. Non-IFRS: the definition of these measures are included in the Non-IFRS Measures section Karora's MD&A dated August 12, 2022.

### Beta Hunt Mine PEA Summary

The Beta Hunt Mine, located 600 km from Perth in Kambalda, Western Australia, is home to a deposit with the very rare potential to host both gold and nickel resources in adjacent discrete mineralized zones.

Nickel was first discovered at Beta Hunt in 1970 by Western Mining Corporation ("WMC"). The mine developed and operated by WMC from 1974 to 1998 and was sold to Gold Fields in 2001. In 2003, Reliance Mining Limited ("RML") acquired the mine and resumed production. [Consolidated Minerals Ltd.](#) acquired RML in 2005 and invested in both increasing resources and expanding production. The mine operated continuously until the end of 2008, when it was placed on care and maintenance due to the financial crisis and associated collapse in metal prices. Nickel operations were restarted in 2014. Initial gold production occurred in June to July 2014, temporarily ceased and then recommenced at the end of 2015 with continuous operations. Karora acquired 100% of Beta Hunt in 2016 including both gold and nickel rights.

In May 2022, Karora announced an updated nickel Measured and Indicated Resource for Beta Hunt of 19,600 nickel tonnes ounces (52% increase over prior) and Inferred Mineral Resource of 13,200 nickel tonnes ounces (52% increase over prior).

Key outcomes of Karora's first PEA on nickel resources at Beta Hunt are outlined below in Tables 1 and 2.

Table 1: PEA Base Case and Upside Case Operating Summary

Category	Item	Units	Base Case	Upside Case
			(Nickel Price US\$19,500/t)	(Nickel Price US\$25,000/t)
Production	Mineralization Mined	'000 t	862	862
	Payable Nickel <sup>1</sup>	t	9,435	9,435
Opex	Revenue/ore tonne <sup>2</sup>	A\$/t	\$292	\$375
	Total Operating Costs	A\$/t	\$159	\$159
	Ni Net C1 Costs	A\$/t Ni <sup>1</sup>	\$14,542	\$14,542
Capex & Total Costs	Total Capital Investment <sup>3</sup>	A\$M	\$18.67	\$18.67
	Ni Net AISC <sup>4</sup>	A\$/t Ni <sup>1</sup>	\$16,946	\$17,624
Valuation <sup>5,6</sup>	NPV 5% (US\$19,500/t Ni)	A\$M	\$57.4	\$110.6
	IRR	%	105 %	232 %

1.	Payable nickel recovered to concentrate (payability x Ni to concentrate)
2.	Revenue includes deductions for payability
3.	Capital investment excludes closure costs
4.	AISC: all-in sustaining cost includes site costs, offsite costs, royalties and sustaining capital
5.	NPV includes operating cash flow and capital investment
6.	Pre-tax NPV and IRR

Table 2: Base Case LOM Summary

Macro-Economic	Units	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Ni	US\$/t Ni		\$19,500	\$19,500	\$19,500	\$19,500	\$19,500	\$19,500	\$19,500	\$19,500
Exchange Rate	US/AUS FX		0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Payable t Ni	t Ni	9,435	267	1,604	2,090	2,077	1,337	974	708	379
Gross Revenue	A\$k	\$252,031	\$7,129	\$42,835	\$55,834	\$55,473	\$35,715	\$26,019	\$18,904	\$10,122
Operating Costs	A\$k	\$137,201	\$10,529	\$26,137	\$28,488	\$26,150	\$18,304	\$12,869	\$9,559	\$5,165
Net C1 Costs - Ni	US\$/t Ni	\$10,615	\$28,799	\$11,899	\$9,949	\$9,192	\$9,994	\$9,645	\$9,861	\$9,951
Net C1 Costs - Ni	A\$/t Ni	\$14,542	\$39,451	\$16,299	\$13,629	\$12,592	\$13,690	\$13,213	\$13,508	\$13,631
Royalties	A\$k	\$22,683	\$642	\$3,855	\$5,025	\$4,993	\$3,214	\$2,342	\$1,701	\$911
Net AISC (Payable Ni)	A\$/t Ni	\$16,946	\$41,855	\$18,704	\$16,033	\$14,996	\$16,094	\$15,617	\$15,912	\$16,035
Pre-Tax Cash OCF	A\$k	\$92,147	-\$4,041	\$12,843	\$22,321	\$24,330	\$14,197	\$10,807	\$7,643	\$4,046
Capital	A\$k	\$18,672	\$7,126	\$6,973	\$4,072	\$337	\$0	\$93	\$71	\$0

The nickel PEA is preliminary in nature and is based on a mineral resource estimate that includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would nickel enable them to be categorized as mineral reserves, and there is no certainty that the nickel PEA will be realized.

## Mining

Access to the main zones of nickel mineralization considered in the nickel PEA for the operating Beta Hunt Mine (Gamma, Beta Central, SW and 40, and East Alpha zones - see Figure 1 below) is via the existing main decline, with only limited additional development required. The most significant additional primary development required includes an exploration incline and return air drive system to access the Gamma Block Mineral Resources. This development will serve the dual purpose of providing access to the Gamma nickel resources and for the continuation of the gold exploration in this area of the mine.

In areas where nickel mineralization is a narrow trough and flat lying, mining is conducted with handheld airleg drills using the room-and-pillar method, whereas in areas that are more steeply dipping, nickel mineralization mining is conducted with small scale mechanised equipment using a cut-and-fill method.

In areas where the resource is thinner than 2.3 metres wide in the cut-and-fill sections, ore grades will be improved through split-firing techniques, and wider than 2.3 metres full development face cuts are taken. Room-and-pillar layouts will target an initial extraction ratio of 60% with secondary pillar extraction on a retreat basis, increasing the overall extraction to 75%.

Design criteria used in the development of the nickel sections production schedule are based on current operating performance as summarized in Table 3 below.

Table 3 PEA Base Case Nickel Mining Production Plan

Item	Units	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Exploration	m	2,380	682.1	1,593.0	104.7	-	-	-	-	-
Twin Boom Jumbo	m	2,128	849.8	817.2	461.5	-	-	-	-	-
Single Boom Jumbo	m	11,312	2,621.5	3,834.8	2,847.6	1,905.8	102.6	-	-	-
Nickel Mineralization Mined	kt	862	35.1	159.5	175.8	150.5	99.6	96.0	96.2	49.7
Nickel Grade Mined	% Ni	1.98 %	1.93 %	1.90 %	2.10 %	2.42 %	2.27 %	1.85 %	1.43 %	1.35 %
Contained Nickel	t	17,145	677.7	3,037.8	3,700.1	3,643.6	2,257.5	1,779.1	1,376.7	673.0

#### Operating Costs

Total operating costs outlined in the PEA are A\$154 per tonne for the criteria outlined in the PEA. The nickel mining operations are costed either directly or indirectly through pro rata cost allocations based upon tonnes for the activity, as summarized in Table 4 below.

Table 4: PEA Operating Cost Estimate

Item	Units	Base Case Nickel
Mineralization Mined Mech C/F <sup>1</sup>	kt	586
Mineralization Mined R & P <sup>2</sup>	kt	277
Total Mineralization Mined	kt	862
Nickel Mining Mech C/F <sup>1</sup>	A\$/t ore	\$139
Nickel Mining R&P <sup>2</sup>	A\$/t ore	\$86
Average Mining	A\$/t ore	\$103
Processing and Haulage	A\$/t ore	\$50.18
Grade Control	A\$/t ore	\$0.83
Total Operating Costs	A\$/t ore	\$154
Total Operating Costs	A\$ '000	\$137,000
1.	Mechanised Cut-and-fill inclined access development	
2.	Handheld room-and-pillar inclined operating development	

#### Capital Cost

Beta Hunt is an operating gold mine with access infrastructure already in place adjacent to existing and proposed nickel mining areas. However, there is a requirement to excavate additional waste development to provide access and ventilation returns to service the new nickel mining areas. Capacity of the existing mining fleet is assumed to be allocated to the production of gold mineralization, therefore the additional development activity requires additional personnel and equipment.

Processing of nickel mineralization is performed offsite and by third parties and no additional investment is required by Karora for surface infrastructure such as a mill or tailings storage facility.

Table 5 below summarizes the nickel project capital requirements for the Base Case mine plan that depletes the current Measured, Indicated and Inferred Resources.

Table 5: PEA Capital Cost Estimate

Item	Units	Base Case
Capitalized Development	A\$M	\$11.97
Vertical Development	A\$M	\$0.52
Mining Fleet	A\$M	\$4.70
Misc Equipment	A\$M	\$1.49
Nickel Subtotal	A\$M	\$18.67

#### Sensitivity

Analysis was performed to test the +/- 20% NPV sensitivity to the following key parameters and reported in

Table 6. Importantly, given the existing infrastructure in place and dual purpose use for gold and nickel mining, the company has the real time ability to respond in a flexible manner to any fluctuations in nickel pricing - a unique feature of Beta Hunt.

- A +/- 20% change in:
  - Grade of nickel mineralization
  - Site operating costs
  - Total capital costs
  - Price of nickel.

Table 6: Beta Hunt Pre-Tax NPV Sensitivity Analysis

Base Case Pre-Tax NPV Sensitivity Value	Change -20%	Change +20%
Grade of Nickel Mineralization (%)	A\$12.2M	A\$102.4M
Site Operating Costs (A\$)	A\$73.1M	A\$41.9M
Total Capital Costs (\$A)	A\$60.9M	A\$54.1M
Price of Nickel (US\$)	A\$19.8M	A\$95.2M

### Nickel Mineral Resource

As shown in Table 7, the Measured and Indicated nickel Mineral Resources as at January 31, 2022 totalled 692k tonnes grading 2.8% Ni for 19,600 nickel tonnes an increase of 3,500 nickel tonnes, or 22% compared to the September 2020 Measured and Indicated Mineral Resource estimate. As at January 31, 2022, Inferred Mineral Resources totalled 492k tonnes grading 2.7% nickel for 13,200 nickel tonnes an increase of 4,500 nickel tonnes, or 52%, compared to the September 2020 Inferred Mineral Resource estimate.

The new nickel Mineral Resource incorporated updates to the 10C and 30C resources plus a small, new trough, the 40C. The bulk of the increased resources is due to the addition of the 50C Trend in the Gamma zone, which makes up 22% (4,300 nickel tonnes) of the Measured and Indicated Mineral Resource and 29% (3,800 nickel tonnes) of the Inferred Mineral Resource. The Beta Hunt Nickel Mineral Resource estimate is net of mine production depletion of 7k tonnes grading 3.0% for 211 nickel tonnes over the period October 1, 2020 to January 31, 2022. The depletion is from the Beta Southwest resource.

Table 7: Beta Hunt Nickel Mineral Resources as at January 31, 2022<sup>1,2,3,5,6,7,8,9,10</sup>

January-2022 Mineral Resource	Measured			Indicated			Measured & Indicated			Inferred		
	(kt)	Ni (%)	Ni (t)	(kt)	Ni (%)	Ni (t)	(kt)	Ni (%)	Ni (t)	(kt)	Ni (%)	Ni (t)
Beta Block	-	-	-	494	2.8 %	13,600	494	2.8 %	13,600	175	2.8 %	5,000
Gamma Block	-	-	-	197	3.0 %	6,000	197	3.0 %	6,000	317	2.6 %	8,200
Total	-	-	-	692	2.8 %	19,600	692	2.8 %	19,600	492	2.7 %	13,200

1.	Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
2.	The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce Mineral Reserves.
3.	The Mineral Resource estimates include Inferred Mineral Resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is also no certainty that Inferred Mineral Resources will be converted to Measured and Indicated categories through further drilling, or into Mineral Reserves once economic considerations are applied.
4.	Mineral Resources are reported within proximity to underground development and a nominal 1% Ni lower cut-off grade for the nickel sulphide mineralization.
5.	Estimation for the Mineral Resources is by ordinary kriging using an accumulation method to account for narrow lodes.
6.	The Mineral Resources assume an underground mining scenario and a high level of selectivity.
7.	Classification is according to JORC Code and CIM Definition Standards Mineral Resource classification categories.
8.	The models are depleted for underground mining to January 31, 2022.
9.	Totals may vary due to rounded figures.
10.	Nickel Mineral Resource Estimates were prepared under the supervision of Qualified Person S. Devlin, FAusIMM (Group Geologist, Karora Resources).

Item Units Base Case

Nickel Price US\$/t 19,500

A\$/US\$ f/x US\$ 0.73

Exploration Potential

Significant potential exists for the discovery of additional nickel deposits at Beta Hunt along trend from known nickel shoots and in poorly tested parallel structures north and south of the Alpha Island Fault (Figure 2). This potential is supported by the recent success in the discovery of the 30C nickel trough (see Karora news release dated September 10, 2020) and the 50C nickel trend (see Karora news release, April 6, 2021).

The 50C nickel trend discovery, located in the Gamma Block, was announced in April 2021 and is now a significant contributor to Karora's nickel Mineral Resources, totaling approximately 22% of Measured and Indicated category Resources and approximately 25% of Inferred category Resources. The 50C, along with the 10C nickel trend, has defined nickel mineralization over an 800 metres strike length, and remains open along strike to the southeast with potential to extend a full 2.6 kilometres of strike to the sub-lease boundary. This potential is highlighted by historical surface drill hole LD4022 (Figure 2) which intersected 9.5 metres (downhole) @ 11.4% nickel, 400 metres southeast along strike of the new mineral resource (see KRR release dated October 8, 2021 for more information).

Karora is continuing to drill test for new nickel troughs encouraged by recent successes. Exploration drilling planned for the remainder of 2022 will include testing the 44C and 90C targets (Figure 2). The 44C is the interpreted northern offset extension to the 40C trough and is located 200 metres west of the Western Flanks gold deposit. The 90C is the interpreted offset extension to the Beta West mine area. This target is supported by a coincident trough/sulphide reflector on the ultramafic/basalt contact interpreted from the 3-Dimensional seismic study completed by previous owner, Consolidated Minerals in 2008. The 90C drilling is a co-funded program with the Western Australian State Government under their Exploration Incentive Scheme (EIS).

Drilling for extensions along strike of the 50C is planned for 2023 once the BRI development drive is extended by a further 300 metres, due to be completed by Q1 2023. The extended BRI will provide drill access to undertake both resource definition and extensional/exploration drilling.

#### Qualified Persons

The technical information in this news release has been prepared or reviewed by, or under the supervision of Shane McLeay, B Eng Mining (Hons) FAusIMM AWASM - Entech (Australia); and Stephen Devlin, FAusIMM - Karora Resources, both of whom are independent Qualified Persons as set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101").

Mr. Stephen Devlin is Group Geologist for Karora, a full time employee of Karora and a Fellow of the AusIMM. Mr Devlin has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code, 2012 Edition, and fulfils the requirements to be a "Qualified Person" for the purposes of NI 43-101. Mr Devlin has reviewed and approved the disclosure of the technical information for the Beta Hunt Nickel Mineral Resource included in this news release.

Shane McLeay is a mining engineer and a Fellow of the AusIMM. Mr McLeay is an employee of Entech Pty Ltd of Perth, Western Australia, who were employed by Karora to undertake a Preliminary Economic Assessment based on the Nickel Mineral Resource for Beta Hunt. Mr McLeay has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code, 2012 Edition, and fulfils the requirements to be a "Qualified Person" for the purposes of NI 43-101. Mr McLeay has reviewed and approved the disclosure of the technical information relating to mining method, overall design work, including cost estimates for the Beta Hunt Nickel Preliminary Economic Assessment included in this news release.

The "JORC Code" means the Australasian Code for Reporting of Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia. There are no material differences between the definitions of Mineral Resources under the applicable definitions adopted by the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM Definition Standards") and the corresponding equivalent definitions in the JORC Code for Mineral Resources.

The disclosure of scientific and technical information contained in this news release has been reviewed and approved by Stephen Devlin, FAusIMM, Group Geologist, [Karora Resources Inc.](#) and Shane McLeay, B Eng Mining (Hons) FAusIMM AWASM - Entech (Australia). Both Qualified Persons for the purposes of NI 43-101.

#### Cautionary Note to U.S. Readers Regarding Estimates of Resources

This news release uses the terms "measured" and "indicated" mineral resources and "inferred" mineral resources. The Company advises U.S. investors that while these terms are recognized and required by Canadian securities administrators, they are not recognized by the SEC. The estimation of "measured" and "indicated" mineral resources involves greater uncertainty as to their existence and economic feasibility than the estimation of proven and probable reserves. The estimation of "inferred" resources involves far greater uncertainty as to their existence and economic viability than the estimation of other categories of resources. It cannot be assumed that all or any part of a "measured", "inferred" or "indicated" mineral resource will ever be upgraded to a higher category.

Under Canadian rules, estimates of "inferred mineral resources" may not form the basis of feasibility studies, pre-feasibility studies or other economic studies, except in prescribed cases, such as in a preliminary economic assessment under certain circumstances. The SEC normally only permits issuers to report mineralization that does not constitute "reserves" as in-place tonnage and grade without reference to unit measures. Under U.S. standards, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. U.S. investors are cautioned not to assume that any part or all of a "measured", "indicated" or "inferred" mineral resource exists or is economically or legally mineable. Information concerning descriptions of mineralization and resources contained herein may not be comparable to information made public by U.S. companies subject to the reporting and disclosure requirements of the SEC.

