26 April 2022



# GOLDEN RIM SIGNS OPTION AGREEMENT ON LORETO PORPHYRY COPPER PROJECT, CHILE

Golden Rim Resources Ltd (ASX: GMR, **Golden Rim** or **Company**) is pleased to advise it has executed an Option and Joint Venture Agreement with Teck Resources Chile Limitada (**Teck Chile**), a subsidiary of Teck Resources Limited (**Teck**), on its 100%-owned Loreto Copper Project (**Loreto**). Loreto comprises mineral concessions that have been separated from the Company's Paguanta Silver-Lead-Zinc-Copper Project (**Paguanta**) in northern Chile.

# **Highlights**

- Teck Chile has been granted options to earn up to a 75% interest in Loreto by making **US\$0.6m** in staged cash payments (~A\$0.8m) to Golden Rim and spending **US\$17m** on exploration (~A\$23m).
- Loreto lies at the northern extension of Chile's West Fissure the world's largest concentration of major porphyry copper-molybdenum deposits.
- Golden Rim's exploration has identified a highly prospective **2.3km x 1km alteration centre** at Loreto which has the potential to host a deeper porphyry copper deposit.
- Mineral concessions that cover the Measured, Indicated and Inferred Mineral Resource of 2.4Mt at 88g/t silver, 5.0% zinc and 1.4% lead for 6.8Moz silver, 265Mlb zinc and 74Mlb lead<sup>1</sup> at Paguanta are not included in the agreement with Teck Chile; Golden Rim is pursuing an alternative transaction on the Paguanta mineral concessions.

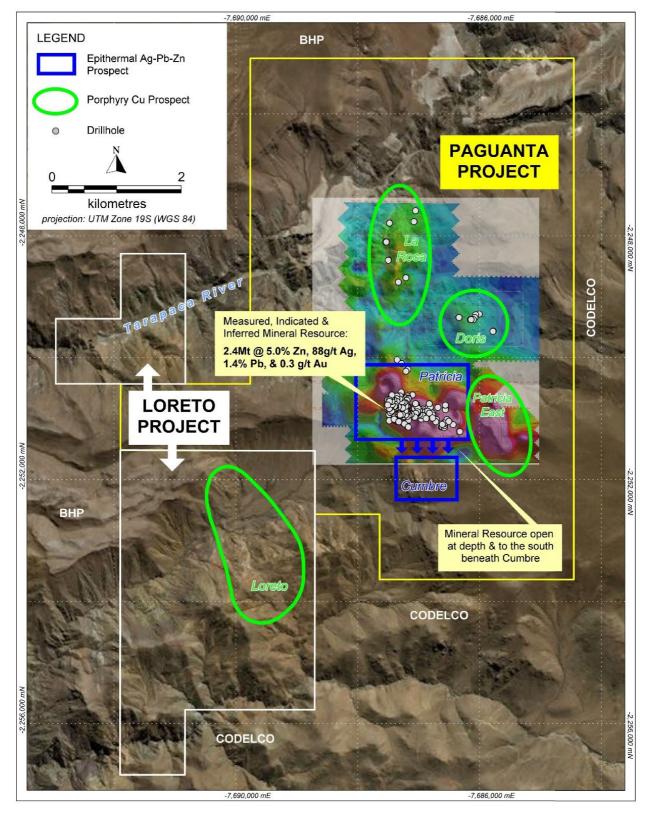
**Golden Rim's Managing Director, Craig Mackay, said,** "Golden Rim believes that Loreto could well represent the last unexplored outcropping Oligocene-Eocene porphyry system in northern Chile. Not surprisingly, Loreto is surrounded by BHP and Codelco, two of the largest copper companies in the world.

"Golden Rim is very pleased to execute this agreement with Teck, one of Canada's leading mining companies, to explore Loreto. Teck has two major copper operations in Chile, including the Quebrada Blanca Mine, located 120km south of Loreto along the West Fissure.

"The Option and Joint Venture Agreement allows Golden Rim to leverage off Teck's significant porphyry copper exploration and development experience. With the ability to retain an interest in Loreto, Golden Rim gets to share in the upside should Teck make a significant copper discovery. The agreement also allows us to deliver value from the project while focusing on growing our gold inventory at the Kada Gold Project in Guinea."

<sup>&</sup>lt;sup>1</sup> ASX announcement: New Resource Estimation for Paguanta dated 30 May 2017 (Total Mineral Resource includes: Measured Mineral Resource of 0.41Mt at 5.5% zinc, 1.8% lead, 88g/t silver, 0.3g/t gold; Indicated Mineral Resource of 0.61Mt at 5.1% zinc, 1.8% lead, 120g/t silver, 0.3g/t gold; Inferred Mineral Resource of 1.3Mt at 4.8% zinc, 1.1% lead, 75g/t silver, 0.3g/t gold).





**Figure 1.** Location of Golden Rim's Loreto Project and the newly redefined Paguanta Project in northern Chile on satellite imagery. An Induced Polarisation chargeability image overlies the satellite imagery in the Patricia area. The interpreted 2.3km x 1km porphyry centre at Loreto is indicated by the green outline.



# **Highly Prospective Porphyry Copper Setting**

Loreto lies in northern Chile, in the northern extension of the West Fissure, which hosts the world's largest known concentration of major porphyry copper and molybdenum deposits (Figure 2). The project is 30km north-east of BHP's Cerro Colorado Mine (Measured and Indicated Mineral Resources: **519Mt at 0.55% copper**<sup>2</sup>) and 130km north of Collahuasi (Anglo American and Glencore; Measured and Indicated Mineral Resources: **2,340Mt at 0.66% copper**<sup>3</sup>) and Quebrada Blanca (Teck/Sumitomo/ENAMI; Proven and Probable Mineral Reserves: **1.43Bt at 0.51% copper, 0.021% molybdenum and 1.36 g/t silver** in addition to Measured and Indicated Mineral Resources of **3.59Bt at 0.37% copper, 0.016% molybdenum and 1.11 g/t silver**, and Inferred Mineral Resources of **3.11Bt at 0.35% copper, 0.017% molybdenum and 1.12 g/t silver**<sup>4</sup>) (Figure 2).

The Loreto mineral concessions are 100% owned by Golden Rim and extend over an area of 16.0km<sup>2</sup> (Figure 1). These concessions cover the Loreto porphyry copper target and prior to the agreement with Teck Chile, they formed part of the Paguanta Project. The remainder of Paguanta mineral concessions extend over 39.2km<sup>2</sup> and comprise the Paguanta Joint Venture between Golden Rim (75% interest) and Chilean company, Costa Rica Dos (25% interest).

The Paguanta Joint Venture mineral concessions cover the Measured, Indicated and Inferred Mineral Resource of **2.4Mt at 88g/t silver**, **5.0% zinc and 1.4% lead for 6.8Moz silver**, **265Mlb zinc and 74Mlb lead**<sup>5</sup> at the Patricia Prospect, along with the Cumbre silver-lead-zinc prospect (possible southern extension to the Mineral Resource), and Patricia East, Rosa and Doris porphyry copper prospects (Figure 1).

<sup>&</sup>lt;sup>2</sup> BHP Annual Report 2020, p. 290.

<sup>&</sup>lt;sup>3</sup> https://miningdataonline.com/property/1383/Collahuasi-Mine.aspx#Reserves

<sup>&</sup>lt;sup>4</sup> Teck 2021 Annual Information Form dated February 23, 2022, p. 51-54.

<sup>&</sup>lt;sup>5</sup> ASX announcement: New Resource Estimation for Paguanta dated 30 May 2017 (Total Mineral Resource includes: Measured Mineral Resource of 0.41Mt at 5.5% zinc, 1.8% lead, 88g/t silver, 0.3g/t gold; Indicated Mineral Resource of 0.61Mt at 5.1% zinc, 1.8% lead, 120g/t silver, 0.3g/t gold; Inferred Mineral Resource of 1.3Mt at 4.8% zinc, 1.1% lead, 75g/t silver, 0.3g/t gold).



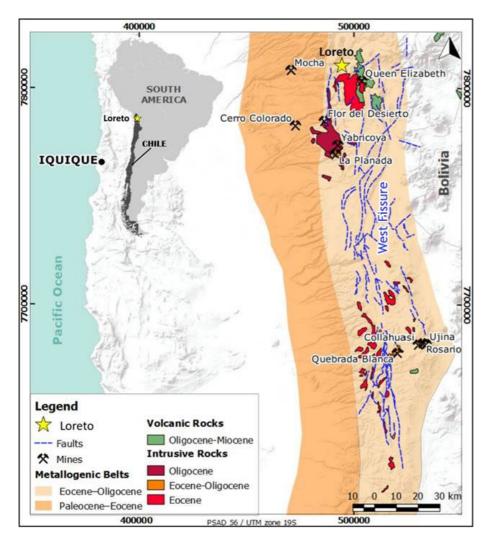


Figure 2.
Location of the
Loreto copper
target within
the Eocene –
Oligocene
Porphyry Belt
of northern
Chile.



**Figure 3.** Photo of the Loreto hydrothermal alteration zone (colour anomaly) looking south. The best new anomalous molybdenum results were obtained to the northwest (out of the photo).



## **Loreto Porphyry Copper Target Attributes**

Loreto shows encouraging evidence of a sizeable and fertile porphyry system, in an area that has been under-explored because of limited access and its distance from the silver-lead-zinc vein system at Patricia, the focus for all previous exploration and historical mining at Paguanta to date.

Loreto's porphyry attributes are summarised below:

- **3.5km x 3.5km lithocap** (colour anomaly) composed of clay pyrite +/- sericite, surrounded by propylitic halo (chlorite epidote magnetite pyrite) affecting the volcanic rocks from the Empexa Formation and granodiorite from the Alantaya Batholith. This is interpreted as the alteration footprint of a porphyry system (Figures 1 & 3).
- Remnants of copper oxide veins at surface and encouraging molybdenum results in rock chip samples (as molybdenum is a geochemically immobile element, it is an excellent porphyry pathfinder), highlighting a 2.3km x 1km porphyry centre within the lithocap (Figure 4).
- **Igneous Breccia outcrops**, with a clay silica pyrite and dacitic matrix surrounding dacitic to dioritic porphyry clasts showing potassic alteration (biotite pyrite chalcopyrite), suggesting a potassic altered core at depth (porphyry copper target).
- **Multiphase porphyry dykes**, grading in composition from diorite to dacite. These dykes show silica clay sericite and chlorite epidote magnetite alteration, plus pyrite +/- chalcopyrite. Multievent intrusions are common in porphyry systems and play a key role in hydrothermal fluid exsolution and transport.
- **Porphyry dyke has been dated, confirming Late Oligocene Early Eocene age;** U-Pb zircon in dacitic biotite porphyry indicating 35.3 +/- 0.3 Ma. This is the same age as Anglo American/Glencore's Collahuasi copper deposits.
- Hyperspectral analysis (Terra Spec) indicating muscovite and pyrophyllite in surface rock samples, suggesting a paleo-isotherm around 300°C, and potentially close to prospective classic phyllic potassic porphyry alteration assemblages. This alteration is seen outcropping 10km to the east of Loreto at Queen Elizabeth (Anglo American).

Whilst exploration at the Loreto porphyry target has been limited, the region has been on the radar of the major companies which tightly hold the area surrounding Paguanta, including BHP, Anglo American, Glencore, Vale and Freeport. Not surprisingly, Paguanta's mineral concessions, particularly the Loreto target, have been over-staked by the majors. To mitigate this, Golden Rim has converted these mineral concessions to exploitation concessions.

Based on the field observations, Golden Rim believes that Loreto corresponds spatially to the upper portion of a porphyry system and that it corresponds in time to the most productive copper mineralising age in northern Chile (late Oligocene – early Eocene).

Moreover, Loreto shows good evidence to suggest a telescoped system (hydrothermal alteration overprinting), meaning that economic mineralisation might be in a range of hundreds of metres below surface, within the zone of phyllic and potassic porphyry alteration. Evidence for this deeper alteration



includes the clasts with potassic altered porphyries plus sulphides from the igneous breccia and the pyrophyllite hyperspectral finding.

Remnant copper oxides at surface, chalcopyrite in the igneous breccia clasts and traces of chalcopyrite in late multiphase porphyry dykes show evidence of copper fertility at Loreto.

#### **Transaction Terms**

Golden Rim has granted Teck Chile an option to acquire a 55% interest in Loreto (the "**First Option**"). Teck Chile may exercise the First Option by incurring an aggregate of US\$5,000,000 in expenditures on Loreto and by making US\$600,000 in cash payments to Golden Rim as set out in the schedule below. The dates other than the payment due on signing of the Agreement, are tied to the "**Permit Date**" on which Teck Chile has received all drill permits and community access required for a first drill program.

On or Before Date	Cumulative Aggregate	Cash Payment to Golden Rim
	Expenditures (US\$)	(US\$)
Signing of the Agreement	-	\$100,000
The Permit Date	-	\$100,000
First Anniversary of the Permit Date	\$500,000	\$50,000
Second Anniversary of the Permit Date	\$1,000,000	\$50,000
Third Anniversary of the Permit Date	\$2,000,000	\$100,000
Fourth Anniversary of the Permit Date	\$5,000,000	\$200,000
Total	\$5,000,000	\$600,000

If Teck Chile exercises the First Option, Teck Chile shall have a further option to acquire an additional 20% interest in Loreto, by incurring an additional US\$12,000,000 in expenditures over the ensuing four-year period (the "**Second Option**").

Provided that Teck Chile exercises the First Option, a corporate joint venture (the "**Joint Venture**") will be formed between Teck Chile and Golden Rim. Each party shall then fund its pro-rata share of future expenditures on Loreto through equity contributions to the Joint Venture or incur dilution. If a party's shareholding interest in the Joint Venture is diluted below 10%, its shareholding interest will be converted to a 1.0% NSR royalty. The party with the majority interest shall be the "Operator" of the Joint Venture.





Figure 4.
Copper oxide vein (within green dashed lines) in the alteration zone (leached cap) at Loreto.

## **Planned Exploration**

Teck Chile aims to systematically explore the Loreto porphyry system and to test for an economic copper deposit at depth. It is currently envisaged the initial program of exploration at Loreto will comprise the following:

- Community engagement and environmental studies to obtain social licence to advance field work
- Basic target definition work, such as detailed mapping, geochemistry, ground magnetometry and Induced Polarisation (IP) geophysics.
- An initial drill program consisting of 5-10 drill holes aiming at demonstrating economic intercepts of copper mineralization.

-ENDS-



**Contact Information:** 

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This announcement was authorised for release by the Board of Golden Rim Resources Ltd.

#### **Competent Persons Statements**

The information in this report relating to previous exploration results and Mineral Resources are extracted from the announcements: Sampling Grows Golden Rim's Loreto Porphyry Copper Target by 100% dated 8 June 2021; Golden Rim to Explore Major Porphyry Copper Target in Chile dated 22 April 2021; New Resource Estimation for Paguanta dated 30 May 2017; Paguanta Zinc-Silver-Lead Project Update dated 20 January 2017; Golden Rim to Acquire Advanced Silver-Lead-Zinc-Copper Project in Chile dated 10 May 2016. These reports are available on the Company's website (www.goldenrim.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in these announcements and, in the case of the Mineral Resource estimate, that all material assumptions and technical parameters underpinning estimate continue to apply and have not materially changed.

These reports are available on the Company's website (www.goldenrim.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in these announcements and, in the case of the Mineral Resource estimate, that all material assumptions and technical parameters underpinning estimate continue to apply and have not materially changed.

The information in this report that relates to exploration results is based on information compiled by Craig Mackay, a Competent Person, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Mackay is a full-time employee of the Company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Mackay consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Forward Looking Statements**

Certain statements in this document are or maybe "forward-looking statements" and represent Golden Rim's intentions, projections, expectations or beliefs concerning among other things, future exploration activities. The projections, estimates and beliefs contained in such forward-looking statements necessarily involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Golden Rim, and which may cause Golden Rim's actual performance in future periods to differ materially from any express or implied estimates or projections. Nothing in this document is a promise or representation as to the future. Statements or assumptions in this document as to future matters may prove to be incorrect and differences may be material. Golden Rim does not make any representation or warranty as to the accuracy of such statements or assumptions.



### **ABOUT GOLDEN RIM RESOURCES**

Golden Rim Resources Limited is an ASX listed exploration company with a portfolio of advanced minerals projects in Guinea and Burkina Faso, West Africa and in Chile, South America.

The Company's flagship project is the advanced Kada Gold Project in eastern Guinea. Guinea remains one of the most under-explored countries in West Africa. Golden Rim has outlined a maiden Inferred Mineral Resource of 25.5Mt at 1.1g/t gold for 930Koz<sup>6</sup>, the majority of which is shallow oxide-transitional gold mineralisation. Golden Rim is focussed on growing the Mineral Resource. Most of the 200km<sup>2</sup> project area remains poorly explored and there is considerable upside for the discovery of additional oxide gold mineralisation.

The Company discovered and has outlined an Indicated and Inferred Mineral Resource of 50Mt at 1.3g/t gold for 2Moz<sup>7</sup> at the Kouri Gold Project, located in north-east Burkina Faso. Kouri covers 325km<sup>2</sup> of highly prospective Birimian greenstones. Recent exploration has successfully located several high-grade gold shoots.

In northern Chile, Golden Rim has the Paguanta Copper and Silver-Lead-Zinc Project and the Loreto Copper Project. Historically a silver mine, the Company has outlined a Measured, Indicated and Inferred Mineral Resource of 2.4Mt at 88g/t silver, 5.0% zinc and 1.4% lead for 6.8Moz silver, 265Mlb zinc and 74Mlb lead<sup>8</sup> at Paguanta. The Mineral Resource remains open. At Loreto, an Option and Joint Venture agreement has been signed with Teck Chile whereby Teck Chile can acquire up to a 75% interest in the project.

**ASX:GMR** 

**Market Capitalisation: A\$23 million** 

Shares on Issue: 303 million

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<sup>&</sup>lt;sup>6</sup> ASX Announcement: Kada Maiden Mineral Resource 930koz Gold dated 3 March 2022.

<sup>&</sup>lt;sup>7</sup> ASX announcement: Kouri Mineral Resource Increases by 43% Increase to 2 Million ounces Gold dated 26 October 2020 (Total Mineral Resource includes: Indicated Mineral Resource of 7Mt at 1.4g/t gold and Inferred Mineral Resource of 43Mt at 1.2g/t gold).

<sup>&</sup>lt;sup>8</sup> ASX announcement: New Resource Estimation for Paguanta dated 30 May 2017 (Total Mineral Resource includes: Measured Mineral Resource of 0.41Mt at 5.5% zinc, 1.8% lead, 88g/t silver, 0.3g/t gold; Indicated Mineral Resource of 0.61Mt at 5.1% zinc, 1.8% lead, 120g/t silver, 0.3g/t gold; Inferred Mineral Resource of 1.3Mt at 4.8% zinc, 1.1% lead, 75g/t silver, 0.3g/t gold).