

Phoenix Copper Limited / Ticker: PXC / Sector: Mining

19 September 2024

**Phoenix Copper Limited**  
**("Phoenix" or the "Company")**

**Phoenix Publishes Pre-Feasibility Study for Empire Open-Pit Mine**

Phoenix Copper Ltd (AIM: PXC; OTCQX ADR: PXCLY), the AIM-quoted USA-focused base and precious metals company, is pleased to announce that a complete Pre-Feasibility Report ("PFS") for the proposed Empire Open-Pit copper, gold, silver mine in Idaho, USA (the "Project") is now available on the Company's website at <http://phoenixcopperlimited.com>.

**Highlights**

- PFS pre-tax economics - discounted net present value at 7.5% ("NPV7.5") of US 87.86m, 46.4% Internal Rate of Return ("IRR"), US 152.98m cumulative net free cashflow over an 8-year mine life and; total cash costs of 2.44/copper ("Cu") equivalent pound ("lb");
- Life of mine production of 40,424 metric tonnes ("mt") of copper, 40,161 ounces ("oz") of gold and 1.76 million oz of silver;
- Newly designed flotation circuit capable of processing high-grade sulphide ore, in addition to the open-pit oxide ore;
- Sulphide exploration planning in final stages, with a view to mining high grade sulphide material to augment the open-pit flotation feed; and
- Recently purchased ball mills and additional equipment delivered to site in Mackay, Idaho.

**Ryan McDermott, Chief Executive Officer, commented:** "I am pleased to announce that the PFS for the Empire Mine has been completed and provides detailed geological, engineering, metallurgical, and costing data for the proposed open-pit operation.

"Following the publication of the Empire Mine mineral reserves statement on 7 May 2024 (Table 2), the Empire team engineered a crush-grind-flotation-tank leach process design for the proposed open pit. The flotation circuit will also be suitable for processing future polymetallic sulphide vein material from below the open pit. The PFS shows Life-of-Mine production (payable) of 89,094,705 copper lbs (40,424 mt), 40,161 oz gold, and 1,759,717 oz silver. The estimated operating and capital costs for the design mill, the open pit, and ancillary operations are included in the PFS, which shows a pre-tax NPV7.5 of US 87.86 million, a 46.4% IRR, and US 152.98 million cumulative net free cashflow over an 8-year open pit mine life. It is important to note that the footprint of the processing facility will allow it to be situated nearer to the open pit on patented mining claims, hopefully simplifying the plan of operations and the permitting process in general.

"The Empire processing mill will produce a copper-gold-silver concentrate in the flotation circuit and a separate cement copper stream from the leaching circuit. As the flotation circuit will also be able to process sulphide ore, the Empire team is currently finalizing a plan to advance the exploration of the deeper sulphide vein system with an eye on augmenting the open pit ore with feed from the higher-grade sulphide vein system below the pit. The planning includes driving an adit toward known sulphide mineralization and developing underground drilling stations along the length of the adit. Known sulphide mineralization includes the 8.38% copper interval intercepted in the 2021 core drilling program, which also assayed 1.31 grammes per tonne ("g/t") gold and 120 g/t silver. Historically mined grades from the sulphide vein system below the open pit were recorded as high as 8% copper, with smelter recoveries of the time recorded as averaging 3.64% copper, 1.64 g/t gold, and 54 g/t silver. The advantage to underground mining and drilling is that it can be conducted effectively in the wintertime without significant weather-related impacts. Resources permitting, we hope to commence driving the adit this winter.

"Using this PFS as the basis, we are now completing final detailed engineering and the plan of operations for the open-pit mine. The Phoenix team will continue to refine and optimize the operating and capital costing parameters of the mine and processing facility, with the intent to further reduce those costs where possible. Assuming we can augment the open-pit ore with high grade sulphide material, this should further improve the Project economics.

"I would also like to report that the pre-owned ball mills purchased by the Company in March 2024 have been delivered to our facility in Idaho. Additional rolling stock and some fixed assets have been purchased, all pre-owned, and are also at the Idaho facility. As we have previously reported, it is the Company's intention to outfit the Empire Mine and milling operation with used and pre-owned equipment to decrease the overall capex. The estimated capex in the PFS for the Empire Mine is currently estimated at US 62.6 million.

"The PFS was prepared using the NI 43-101 format, but is not considered NI 43-101 compliant because used and pre-owned equipment pricing was used to calculate capital expenditures. The Company is well-positioned to purchase additional used equipment for the Empire Open-Pit operation and has selected to incorporate used equipment pricing in its cashflow model, as opposed to NI 43-101's required new equipment pricing."

**Summary of Economic Results**

The economic analysis of the base case scenario for the Project uses metal prices of 4.45/lb for copper, 2,325/oz for gold and 27.25/oz for silver, being the approximate spot prices as of 15 April 2024. The economic model shows a pre-tax NPV-7.5 of 87.86 million using a 22.59/tonne net smelter royalty ("NSR") cut-off, as well as a pre-tax IRR of 46.4%. Table 1 summarises the projected cashflow, NPV at varying rates, IRR, years of positive cash flows to repay the negative cash flow ("Payback Period"), multiple of positive cash flows compared to the maximum negative cash flow ("Payback Multiple") for the Project on both after-tax and before-tax bases.

Table 1

Project Evaluation Overview	After Tax	Before Tax
Cumulative Net Cashflow	132.44	152.98
NPV @ 5.0%; (millions)	89.55	105.44
<b>NPV @ 7.5%; (millions)</b>	<b>73.75</b>	<b>87.86</b>
NPV @ 10.0%; (millions)	60.71	73.29
Internal Rate of Return	40.2%	46.4%
Payback Period	1.66	1.41
Payback Multiple	2.92	3.21

Benefit Cost Ratio	/ .61	8.8 /
Initial Capital	62.60	62.60
Max. Neg. Cashflow (millions)	- 69.09	- 69.09

#### Mineral Reserve Statement for Empire Mine

Table 2 - Fully diluted tonnes at a NSR cut-off of 22.59/tonne

Classification	Tonnes (x1000)	Copper		Gold		Silver		Copper Equivalent		
		%	lb (x1000)	gpt	oz (x1000)	gpt	oz (x1000)	%	lbs (x1000)	tonnes
Proven	7,515	0.49	81,070.56	0.38	90.9	14.42	3,483.70	0.68	111,995.19	50,814
Probable	2,582	0.5	28,417.41	0.16	13.2	14.1	1,170.70	0.61	34,498.69	15,652
<b>Proven + Probable</b>	<b>10,097</b>	<b>0.49</b>	<b>109,487.97</b>	<b>0.32</b>	<b>104</b>	<b>14.34</b>	<b>4,654.40</b>	<b>0.66</b>	<b>146,493.89</b>	<b>66,467</b>

The mineral reserves reported herein for the Empire project have been estimated in a manner consistent with the NI 43-101 Committee of Mineral Reserves International Reporting Standards ("CRIRSCO"), of which both the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") and Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code") are members.

#### Qualified Person

The foregoing technical information in this news release has been reviewed and verified by Dennis Thomas, ACSM, FIMMM, FGS, CEng, Eurlng, co-founder of Phoenix Copper Limited and Member of the Company's Advisory Board. Mr. Thomas has held both executive and non-executive roles in a number of international private and public natural resources companies and is a chartered mining engineer from the Camborne School of Mines. He is a Qualified Person under the AIM Rules and consents to the inclusion of the information in the form and the context in which it appears.

#### Environmental, Social, and Corporate Governance

Phoenix is committed to meeting and exceeding the environmental standards required by law as a core value of the Company. The baseline environmental data collected to date will be used to further the permitting process, but as importantly, will be used as the building blocks for the Company's ongoing Environmental, Social, and Corporate Governance ("ESG") platform, overseen by the Company's ESG & Sustainability Committee. The Company has recently published its inaugural Sustainability Report, which can be viewed on the Company's website.

#### Market Abuse Regulation (MAR) Disclosure

The Company deems the information contained within this announcement to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014, which has been incorporated into UK law by the European Union (Withdrawal) Act 2018. Upon the publication of this announcement via the Regulatory Information Service, this inside information is now considered to be in the public domain.

For further information please visit <https://phoenixcopperlimited.com>.

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#### Notes

Phoenix Copper Limited is an emerging producer and exploration company specialising in base and precious metals, with an initial focus on copper, gold, and silver extraction from an open-pit mining operation within the United States.

Located in the historic Alder Creek mining district near Mackay, Idaho, Phoenix's flagship asset is the Empire Mine, in which the Company holds an 80% ownership stake. The historic Empire underground mine, located beneath the surface of the Company's proposed open pit, boasts a rich history of producing high-grade copper, gold, silver, zinc, and tungsten.

Since 2017, Phoenix has executed extensive drilling initiatives, resulting in an expansion of the Empire Open-Pit resource by over 200%. In May 2024 the Company published its inaugural mineral reserve statement for the Empire Open-Pit Mine. Proven and Probable mineral reserves are 10.1 million tonnes containing 109,487,970 lbs of copper, 104,000 oz of gold and 4,654,400 oz of silver. This reserve was estimated using assay data from 485 drill holes, extensive geological modelling, metallurgical recovery test work, geotechnical evaluation, and mine design. The reserve represents a combined 66,467 tonnes of copper equivalent metal.

In addition to the Empire Mine, Phoenix's holdings in the district also encompass the Horseshoe, White Knob, and Blue Bird Mines, all of which have been producers of copper, gold, silver, zinc, lead, and tungsten from underground operations, a new high-grade silver and lead orebody at Red Star, and the Navarre Creek gold exploration project, which was first drilled in 2023. The Company's land package at Empire spans 8,434 acres (34 sq km).

Phoenix also owns two cobalt properties situated along the Idaho Cobalt Belt to the north of Empire. An Earn-In Agreement has been established concerning one of these properties.

Phoenix is listed on London's AIM (PXC), and trades on New York's OTCQX Market (PXCLF and PXCLY (ADRs)). More details on the Company, its assets and its objectives can be found on PXC's website at <https://phoenixcopperlimited.com/>

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