

**February 15, 2022**  
**Analyst: Ernest C. Schlotter**



Phoenix Copper Ltd. ist ein F&E-Unternehmen für Basis- und Edelmetalle mit Sitz in Idaho (USA). Das Herzstück des Unternehmens ist der Tagebaubetrieb Empire, wo der Förderbeginn Mitte 2023 geplant ist. Die Lebensdauer der Mine beträgt zehn Jahre. Bei den derzeitigen Metallpreisen beträgt der NPV nach Steuern für den 80%igen Anteil von PXC, abgezinst mit 7,5 %, 146,7 Mio. \$ und die Bruttoeinnahmen 884,5 Mio. \$. Weniger als 1 % des potenziellen Erzsystems wurde bisher exploriert, und die potenziellen Sulfidressourcen unterhalb des Tagebaus und entlang des Streichens könnten für Phoenix einen Wendepunkt darstellen. Darüber hinaus könnte das hochgradige Silber-Blei-Projekt Red Star zu einem Silberförderbetrieb ausgebaut werden. Und erst vor wenigen Tagen deuteten geophysikalische Messungen im Konzessionsgebiet Navarre auf ein beachtliches Ressourcenpotenzial hin. PXC bietet Anlegern die Möglichkeit, sich an einem möglicherweise erstklassigen Basis- und Edelmetallprojekt in Idaho, einer der attraktivsten Bergbauregionen der Welt, zu beteiligen. *Bei unserem risikolosen Marktwert von 1,44 £ pro Aktie gehen wir davon aus, dass PXC seine Arbeitsprogramme erfolgreich umsetzt.*

**12 Monats Kursziel 1.44£ - 17.90 USD - 1.72€**

## INVESTMENT HIGHLIGHTS:

### Bewertung

Bewertung Phoenix Copper Ltd. Valuation				
Bewertungssatz		Bewertung	Bewertung	Bewertung
		Mio. USD	Mio. £	GBP/Aktie
Empire Mine (MoL)	NPV 7,5%	146.7	119.0	98
Red Star (silver)	NPV 7,5%	50.0	37.0	30.6
Navarre (gold)	SISM (e)	6.0	4.4	3.7
Cobalt Project	SISM (e)	5.0	3.7	3.1
Cash	SISM (e)	14.0	10.4	8.6
Risikolose Bewertung SISM Investors				£1.44
Aktien im Umlauf 121,000,000				GBP/US\$ 1.35

### Marktdaten

Preis in Pence	50.40
52 Wochen-Bereich	31.15 - 84.00
Durchschnittsvolumen	335,990
Marktkapitalisierung	59.178 M
Aktien im Umlauf	121.0M
Kurs-Buchwert-Verh.(MRQ)	1.68

### Finanzdaten

	6 Monate 06.30.2020	12 Monate 12.31. 2020	6 Monate 06.30.2021
Einnahmen	0	0	0
Verlust aus Betrieb	-540,391	-922,647	-189,028
<b>Gewinn/Verlust</b>	<b>-569,759</b>	<b>-971,850</b>	<b>-199,481</b>
Gesamtvermögen	15,311,493	16,334,689	41,988,800
<b>Gesamtverbindlichkeiten</b>	<b>1,805,798</b>	<b>2,500,639</b>	<b>4,284,301</b>
<b>Nettovermögen</b>	<b>13,505,695</b>	<b>13,834,050</b>	<b>37,704,499</b>
Buchwert	\$0.2598	\$0.2405	\$0.4105
Buchwert in GBP FOREX 1,35	£0.19	£0.18	£0.30

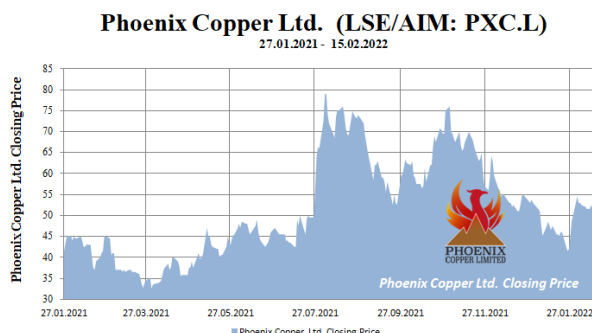
♦ **Phoenix Copper konzentriert sich vor allem auf die Kupferoxid-Tagebaulagerstätte im Projekt Empire**, um Ende 2022 oder Anfang 2023 mit der Förderung der oberflächennahen Kupferoxid-Ressourcen beginnen und Cashflow generieren zu können. Der Produktionsplan sieht in den ersten sieben Jahren eine Förderung von 14,32 Mio. Tonnen Oxiderz vor, was 62,5 % der M&I-Ressourcen (sichere und andeutete Kategorie) mit 2,1 Mio. Tonnen jährlich bei einem Cutoff-Gehalt von 0,5 % Kupfer entspricht. Auf Grundlage des im Februar 2021 vom Unternehmen veröffentlichten Wirtschaftsmodells rechnet PXC mit einem starken Cashflow und einer raschen Amortisierung der vor Produktion getätigten Investitionen in weniger als zwei Jahren und prognostiziert eine durchschnittliche Jahresproduktion von 8.550 Tonnen Kupfer und 1.970 Tonnen Zink in der ersten Produktionsphase sowie 17.235 Unzen Gold und 680.050 Unzen Zink in der zweiten Phase. *Die Lebensdauer der Mine beträgt mindestens zehn Jahre. Bei den derzeitigen Metallpreisen sind der mit 7,5 % Abschlag errechnete NPV nach Steuern mit 146,7 Mio. \$ und die Bruttoeinnahmen mit 884,5 Mio. \$ zu beziffern.*

♦ **Betriebsplan** – Nach Einreichung des Betriebsplans im Juni 2021 läuft das Genehmigungsverfahren für den Kupferoxid-Tagebau im Projekt Empire derzeit nach Plan. Das hydrologische Bohrprogramm steht kurz vor dem Abschluss. Die zugehörige Machbarkeitsstudie verläuft ebenfalls planmäßig, die endgültigen technischen und verfahrenstechnischen Entwürfe liegen im Zeitplan. Das Unternehmen hat auch mit dem Ankauf von Quartieren für das Personal und Lagereinrichtungen in bzw. in der Nähe von Mackay begonnen, um seine Pläne für eine langfristige Metallförderung in den Konzessionen umzusetzen. Derzeit finden Gespräche mit potenziellen Fremdkapitalgebern für den Bau des Projekts statt. Die Produktion soll in der ersten Hälfte des Jahres 2023 starten.

♦ **Langfristig besteht enormes Potenzial** für die Erschließung einer erstklassigen Kupfer- und Edelmetallmine im Projekt Empire durch die Extraktion des Sulfidkörpers unterhalb der Oxidschicht und den angrenzenden Claims. Sollten weitere Explorationsbohrungen eine bedeutende Sulfid-Kupfer-Ressource unterhalb des Tagebaus im Projekt Empire ergeben, könnte dies erhebliche Auswirkungen auf die Bewertung haben. Die Explorationsarbeiten bei Red Star und im Goldprojekt Navarre Creek sind im Gange; Navarre könnte sich zu einer Goldlagerstätte vom Typ Carlin entwickeln. Der aus dem Bergbauprojekt Empire generierte Cashflow wird die weitere Erschließung dieser Projekte ermöglichen. Der Kobaltbergbau in Idaho boomt. PXC ist mit zwei äußerst aussichtsreichen Kupfer-Kobalt-Konzessionen hervorragend positioniert, um von der rasant steigenden Nachfrage nach Rohstoffen, die für den Bau von Elektrofahrzeugen, Smartphones, Tablets etc. benötigt werden, entsprechend zu profitieren.

♦ **Phoenix Copper ist gut finanziert** und wird von einem sehr erfahrenen Führungsteam geleitet. Das Flaggschiff von PXC, das Projekt Empire, wird voraussichtlich bis Mitte 2023 in Produktion gehen. Es besteht das Potenzial für bedeutende Kupfersulfidfundamente unterhalb des Tagebaus; dies könnte für Phoenix einen Wendepunkt darstellen und der erste Schritt zur Erschließung eines Projekts mit erstklassigen Kupfer- und anderen Basismetallressourcen sein. PXC hat einen ESG-Ausschuss eingerichtet, um seine soziale und ökologische Strategie als verantwortungsbewusstes Unternehmen zu verbessern. Für börsennotierte Bergbauunternehmen jeglicher Größe ist es eine wesentliche Voraussetzung, die ESG-Kriterien zu verstehen, die den aktuellen und künftigen Anlegern wichtig sind. Unser fairer Wert von 1,44 £ basiert auf einem geschätzten Nettowert nach Steuern in Höhe von 146,7 Mio. Dollar für die Mine Empire und auf dem Wachstumspotenzial der Projekte Red Star und Navarre, des gerade entstehenden Kobaltprojekts sowie weiterer Projekte. ***Wir beginnen die Berichterstattung zu Phoenix Copper Limited mit einer SPEKULATIVEN KAUFEMPFEHLUNG und einem 12-Monats-Kursziel von 1,44 £ und 17,90 \$ für ADR-Aktien und 1.72€***

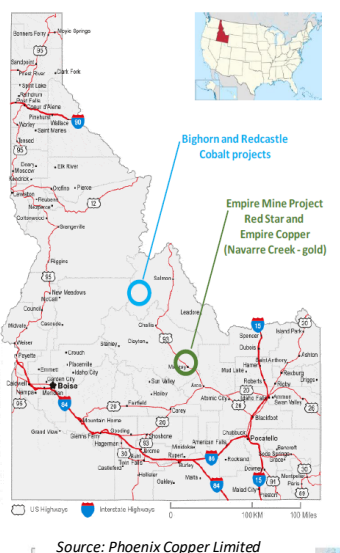
### Aktienchart



## COMPANY OVERVIEW

Phoenix Copper Limited AIM: PXC (**GBp 54.50**), OTCQX ADR: PXCLY (**\$7.37**) is trading on the AIM market of the London Stock Exchange plc and the OTCQX Market. Each ADR consists of ten existing Ordinary Shares. BNY Mellon established the ADR (American Depositary Receipts) Program for Phoenix Copper to attract US investors. BNY Mellon is the market-leading depositary bank in the global depositary receipt business,

Phoenix Copper Ltd. is a base and precious metals emerging producer and exploration company with its primary operations are focused in Idaho in the Alder Creek mining district. The Company acquired an 80% interest in the leases related to the Empire mine in 2013 and since then enlarged the original 818-acre property into 6,877 acres. The **Empire Copper-Oxide Open Pit Project** is the Company's core asset, and production is planned for the first half of 2023. *It is estimated that less than 1% of the potential ore system has been explored to date at Empire. Accordingly, there is a significant opportunity to increase the resource through phased exploration,*



In addition to Empire, Phoenix Copper owns the historic Horseshoe, White Knob, and Blue Bird Mines properties, all past producers of copper, gold, silver, zinc, lead, and tungsten from underground mines. The discovery at Red Star, 330 meters northwest of the Empire Mine, has revealed high-grade silver/lead sulfide ore from three shallow exploration drill holes. In addition, the district includes Navarre Creek, a volcanic-hosted, Carlin-type gold discovery that hosts a 6,1 km gold strike length within a 14,48 km<sup>2</sup> area. The Company's total

land package at Empire comprises 8,034 acres (32.51 sq km),

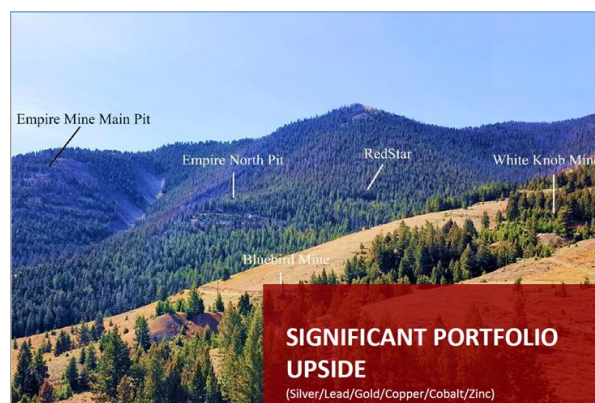
The new discovery at Red Star, 330 meters northwest of the Empire Mine, revealed high-grade silver/lead sulfide ore and three shallow exploration drill holes. A Maiden inferred resource estimate for Red Star was announced in May 2019 based on the results of three drill holes and amounted to 103,500 tons of ore and more than 0,5m oz of contained silver. PXC targets a planned 3,000-meter diamond-core drilling program in 2022.

The Horseshoe, Bluebird, and the White Knob Mining, located to the north of Red Star, produced copper, gold, silver, lead, zinc, and tungsten between 1909 and 1929. Total production of 70,300 tons of ore showed recovered grades higher than the current Red Star resource. The historically mined high-grade Horseshoe and White Knob claim blocks produced average grades of 204 g/t silver, 19% lead, 6.5% zinc, and 0.73% copper. In 2018, Phoenix collected rock chip and channel samples from the Horseshoe Mine claim block. The results of the sampling program were reported in October 2018 and showed results as high as 9.19% copper, 580 g/t silver, and 20% lead,

The Navarre Creek Gold Zone 3,577 acres claim block to the northwest of the Empire Mine offers development potential in the precious metal sector. The gold grades in initial geochemical Navarre Creek samples are anomalously high and indicative of higher-grade values in less weathered rocks below the surface oxidized zone. The property was acquired in February 2019, and geology appeared to be similar to volcanic-hosted gold deposits on the Carlin Trend in Nevada, home to several multimillion ounce gold deposits. A few days ago, a piece of significant news hit the wire; Phoenix Copper announced that two geophysical surveys conducted at the Navarre Creek property confirmed that two distinct intrusive bodies were identified. They were partially concealed below glacial till showing strong magnetic signatures which complement the existing jasperoid outcrops. Why this is so important, the presence of jasperoids is found in the Carlin-style gold deposits and indicates a significant resource potential for the Navarre deposit. The results of these surveys, together with the previous exploration results, highlight the prospectivity of the claim block. These positive results will drive further exploration and drill targeting in 2022.

Phoenix Copper has two 100%-owned cobalt claims (1,180 acres), the Redcastle and Bighorn properties in the Idaho cobalt belt, located in Lemhi County, along with the most prolific trend of cobalt mineralization in the USA. The Redcastle property is adjacent to the First Cobalt Corps Iron Creek Cobalt Mine Project, First Cobalt Corp, has changed its name to Electra Battery Matls Corp, (TSXV:ELBN,V), and is a pure-play cobalt company focused on building North American cobalt with a current market cap of US\$119 million. In May 2021, PXC announced an earn-in agreement with ELBN on the Redcastle Cobalt Property. PXC believes this joint venture to have expedited the process going into production a lot sooner than if they had developed Redcastle by themselves. The Bighorn property is not a part of the JV with Electra Battery. The Cobalt price is rising (\$35lb) because of the demand for metals necessary to drive the global transition to clean energy,

*In 2021 Phoenix Cooper raised £18,4 million (\$25,4 million) in equity, which was significantly larger than anticipated and enabled PXC to move ahead with the Empire project. In addition, the new funds helped the Company to execute exploration and development programs simultaneously on the silver-rich Red Star property, the adjacent Horseshoe block, and the Carlin-style gold project at Navarre Creek,*



Source: Phoenix Copper Limited

## THE EMPIRE COPPER-OXIDE OPEN PIT DEPOSIT

The Empire Mine Project is a past-producing high-grade copper, gold, silver, and tungsten property located in Custer County in the Alder Creek mining district, in Idaho, USA, approximately 3.3 miles south-west of the town Mackay and 97 miles west of Idaho Falls. The Project area covers about 6,877 acres of a land surface. The Empire project sits at an altitude of 2,050 to 2,750 above sea level, with portions of the claims accessible via four-well-drive trails,

Phoenix Copper owns 80% of Konnex Resources Inc., the 100% owner of the Empire claim. The remaining 20% is owned by ExGen Resources Inc., which holds 3.11% of Phoenix's share capital. After completing a Bankable Feasibility Study, ExGen Resources has to contribute its share of funding. Since 2017, Phoenix has carried out extensive and successful drilling programs, leading to a significant increase in the open pit resource. With over 400 holes drilled, the Company has a profound understanding of the resource at the Open Pit Project.

Based on the latest updated NI 43-101 compliant resource, dated October 2020 for the Empire Open Pit Mine, the report showed an increase in the Measured and Indicated category from the previous year's resource. The same modeling parameters were used from the May 2020 resource update, and the assays from the latest 32-hole drilling program were added. Based on the new report, the Empire Open-Pit Oxide Deposit now contains 129,641 tons of copper, 58,440 tons of zinc, 10,133,772 ounces of silver, and 355,523 ounces of gold,

*Based on this resource update for the Empire deposit, Phoenix Copper worked on a new economic model. The base metal part of the Project increased by 6.78% for copper, and an impressive 16.42% for zinc. The precious metal part increased by 9.61% for gold and 11.29% for silver. These results all are very significant M&I increases.*

PXC – Increase in M&I Resource Estimates, May 2020 vs. October 2020				
Metal	M&I May 2020	M&I October 2020	Change	Inc, Inferred Resources
Copper (tones)	81,984	87,543	6.78%	129,641
Zinc (tones)	37,685	43,871	16.42%	58,440
Gold (oz)	217,500	238,406	9.61%	355,523
Silver (oz)	6,824,460	7,595,198	11.29%	10,133,772
Tones of ore M&I	<b>19,302,000</b>	<b>22,909,059</b>	<b>18.69%</b>	
Inferred	10,544,000	10,612,556	0.65%	
Total	29,846,000	33,521,615	12.32%	

## BRINGING EMPIRE PROJECT INTO PRODUCTION

The Company focuses on bringing the Empire Open Pit into production by mid 2023. With over 400 holes drilled, PXC has a profound understanding of the resource at Empire and have planned their budgets accordingly. The Company believes that the feasibility study for the Project remains on track for completion in early Q2 2022. A Plan of Operations regarding the initial open-pit mine was filed with the relevant regulatory authorities in June 2021. Phoenix Copper also completed three exploratory drill holes in late 2021 on the south end of the Empire oxide copper deposit. This area had no previous drilling, but surface indications suggest it to be prospective, and the drilling results will be included in the next resource update expected in the early second quarter of 2022.

We have based our analysis of the valuation of Phoenix Copper on the updated economic model from the Company for the Empire Mine open-pit operation. The layer of copper oxide minerals is the basis for the open-pit mine. The deposits width varies significantly from approximately 6m to 73m. In addition to the copper, the layer of oxide ore at the Empire mine contains gold, silver, and zinc. The deposit extends from the surface to a depth of approximately 120 meters. Below that depth, a transition zone in the ore body contains a mixture of oxide and sulfide ores several tens of meters thick. At greater depth, sulfide mineralization is dominant. *Less than one percent of the potential ore system has been exploited and explored to date,*

The updated Economic Model (EM) for the Empire Mine open-pit project indicates strong cash flow and rapid payback in less than two years, a 10-year Life of Mine (LoM) processing a total of 14.3 million tons Measured & Indicated (M&I) ore at a 0.5% copper cut-off grade. According to the latest NI 43-101 report, the M&I resources estimate is 22.9 million tons of ore; therefore, the production mine incorporates just over 62% of M&I resources. There is substantial potential to continue to extend the life of the mine beyond ten years. In addition, considerable opportunity exists to advance the LoM through exploration and development funding from project cash flows.

### Two Phased Processing To Recover Copper, Zinc, Gold, and Silver

Phase 1 is the heap leach project, a seven-year operation processing 2.1 million tons per year, extracting the near-surface oxide ore, producing base metal, copper, and zinc from years one to seven of the life of mine: phase 2 agitation leach project, a seven-year operation processing ore from Phase 1. Producing precious metal, gold, and silver from years four to ten of the LoM, using environmentally friendly non-toxic processing technology, the ammonium thiosulfate (ATS) processing reagent, to recover precious metals. *Precious metals tests performed on samples from the Empire open pit deposit using non-toxic ammonium thiosulfate (ATS) reagent resulted in high gold recoveries of 97.8% and 97.7% and silver recoveries of 69.8% and 78.2% respectively.*

The (LoM) Life of Mine revenue estimated by PXC is \$784 million, producing an average annual production of 8,550 tons of copper, 1,970 tons of zinc, 17,235 ounces of gold 680,050 ounces of silver. The initial head grade is 0.70% copper. Phoenix Copper estimates the pre-production capital cost at \$52.6 million and the copper equivalent cash operating cost of \$1.83 / lb, for the ten years life of the mine. The Company forecasts the gold equivalent cash operating cost at \$1,190 / oz. Based on this assumption, the mine generates an EBITDA of \$310 million (80% ownership) and a post-tax cash flow of \$155 million, Phoenix Copper used the following metal prices for their project valuation: *\$3.60/lb copper, \$1.20/lb zinc, \$1.825/oz gold, and \$27/oz silver.* If the metal prices are only ten percent higher, the NPV discounted at 7.5% generates \$157 million in pre-tax and \$140 million post-tax.

Our analysis of valuation for the Empire mine is based on an updated version of the PEA published in February 2021. Our Model includes current spot rates of metal prices, and our higher calculated NPV analysis compared to PXC's is reflected by higher commodity prices. The most significant impact on the NPV estimate is the copper price.



## Economic Model of the Empire Mine (LoM) – SISIM Investors Updated Analysis of the Preliminary Economic Assessment (PEA)

EBITDA	437,808,801
Pre-production capital costs	89,500,000
Sustaining Capital Costs	31,175,000
Equipment/Finance costs	10,635,000
<b>Total pre-tax cash flow</b>	<b>306,498,801</b>
Taxes	23,852,495
<b>Total post-tax cash flow</b>	<b>282,646,306</b>
Discount rate 7.5%	
<b>Pre-tax cash flow</b>	<b>198,795,122</b>
<b>Post-tax cash flow NPV</b>	<b>183,324,394</b>

## Phoenix Copper Valuation (Open Pit Project)

Post-tax NPV open pit project	183,324,394
Phoenix share of project value 80%	146,659,515
Current Cash	14,000,000
Equity Value in US\$	160,659,515
Forex Exchange (GBP/US\$)	1.35
Equity Value in GBP	119,007,048
Number of shares outstanding	121,000,000

<b>Net Present Value per share in Pence</b>	<b>98</b>
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*SISIM Investors assumed metal prices at the current price level of \$4.50/lb copper, \$1.63/lb zinc, \$1,810/oz gold, and \$22.7/oz silver for the Empire Open Pit Project Valuation*

## Economic Analysis and Valuation

The October 2020 resource estimate, published in February 2021, formed the basis of the Preliminary Economic Assessment (PEA) for the Empire Mine open pit project. The Economic Model contained in the PEA is based on a two-phase operation over a 10-year mine life, which will see the production of copper and zinc in years one to seven, with the addition of gold and silver production from year four to ten. Phoenix Copper owns 80% of Konnex Resources Inc., which owns 100% of the Empire claim, ExGen Resources Inc. owns the remaining 20%.

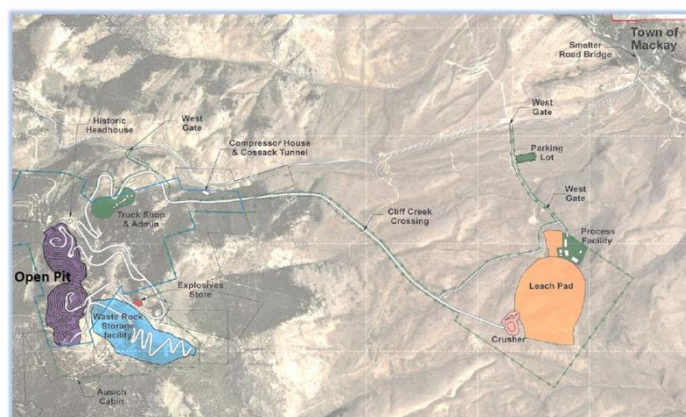
The PEA report estimates a 0.5% copper cut-off grade and assumes mining and processing of 14.3 million tons of Measured and Indicated (M&I) ore for the life of the mine, representing approximately 62.4% of the estimated M&I resources of 22.9 million tons. Here are the production details; according to the PEA, Phoenix is going to produce 58 thousand tons of copper and 13 thousand tons of zinc in years one to seven of the mine's operation, and from year four to year ten, the report estimates the production of 117 ounces of gold and 4.6 million ounces of silver.

The Idaho jurisdiction allows for tax reasons to offset costs for pre-construction exploration and Feasibility Study and, therefore, will reduce the tax charges for Phoenix Copper significantly. The tax charge will be approximately 8% of EBITDA starting in 2025

From a life of mine EBITDA estimate of \$436 million for 100%, we estimate a total pre-tax cash flow for the Project of 306 million. After taxes and a discount rate of 7.5%, we calculate a post-tax NPV of \$183 million. In addition, we include an 80% ownership of the Project for PXC and calculate a post-tax NPV of \$146.7 million. We also estimate a current cash position of \$14 million. Using all those financial parameters, **we calculate a Project value for Phoenix Copper of 98 Pence/shr.**

We believe that our fair value estimate for the Empire Project is very conservative; only 62.4% of the Measured and Indicated (M&I) ore is projected for production for LoM (Life of Mine). Nothing is included for the potential sulfide resource beneath the open pit to extend the LoM significantly. It is evident the Empire deposit is underexplored and undeveloped, and tremendous opportunities exist in this play. The ore system's upside exploration and evaluation potential at Empire are considered significant. It is estimated that less than 1% of the potential ore system has been explored to date, and, accordingly, there is a significant opportunity to increase the resource through phased exploration.

## GENERAL ARRANGEMENT OF PLANNED Cu/Zn HEAP LEACH SX/EW PROJECT



Source: Phoenix Copper Limited

## ENVIRONMENTAL, SOCIAL, GOVERNANCE ESG

### Emerges The Top Risk/Opportunity For The Mining Sector

The interest of investors in ESG has been growing in the last couple of years as investors are raising expectations for how companies operate. Pressure from capital markets and broader society continue to impact and place pressure on companies to go beyond their regulatory obligations and take responsibility for driving social equality in the regions in which they operate. Shareholder expectations are changing fast, impacted by numerous challenges. The changes include the mining industry's contribution to communities, economies, protection of heritage sites and engagement with indigenous and First Nations peoples. The industry's role in prioritizing ethical supply chains, with diversity and inclusion also in the spotlight. The days of working solely to deliver quarterly results are over. Mining companies with high ESG ratings provided ten percent higher shareholder returns in the last couple of years,

### Environmental, Social, and Corporate Governance

**For Environment**, climate change continues to be the leading investor's topic. Climate concerns are generally targeted at operating companies, as they produce the most emissions, specifically the mining companies. Voluntary disclosure frameworks are becoming very important for publicly traded mining companies. Investors are showing a growing interest in understanding how development-stage miners approach this topic in terms of assumptions from technical studies, project design considerations, trade-off analyses, proposed energy sources, transportation emissions, etc. Mining sites are heavily regulated, and companies understand the importance of managing their direct operations-based environmental impacts – tailings, waste, air, emissions, etc.

**For Social**, since the outbreak of COVID-19, expectations around social topics are set to grow. The issue that is top of mind for investors is Diversity and Inclusion (D&I), primarily since stock exchanges regulate specific D&I requirements. But it's one thing to have at least 30%

of the board being female, and another to have a workforce that is truly representative of society, especially in a male-dominated industry like mining. Plus, with the momentum of Black Lives Matter and other activist movements, there's a lot more to come.

**As for Governance** is about transparency and governments and stock exchanges around the world, putting in place tighter ESG regulations for listed companies. For listed mining companies – of any size – an important starting point is to understand the current and target investors ESG topics they care about. Investors may use specific ESG ratings.

In 2021 Phoenix Copper created the Environmental, Social, and Governance Sustainability Committee (ESG Committee) to enhance its social and environmental strategy as a responsible corporate citizen. Catherine Evans has become the chairman of the Committee. The ESG is an essential step since scaled-up extractive operations are approximately one year away from commencement and the management team already has an ESG Committee in place. The production of copper, silver, cobalt, and gold means Phoenix Copper Ltd. can contribute to the global transition to clean energy, particularly the Biden Administrations' electrification program. PXC will also provide employment and other opportunities to boost the local economy in Custer County, Idaho. The Empire Mine Oxide Open Pit operating plan was presented to the community of Mackay, Idaho, during a Town Hall meeting on December 1, 2021, as part of the Phoenix Copper ESG and Sustainability Programs community liaison process. More than 135 citizens attended the meeting, and PXC presented the Empire Project. The attendees were very interested to hear about transportation and supply routes, mine staffing and staff housing, and economic community benefits.

## HISTORY OF THE EMPIRE MINE

A variety of publicly available documents exist which describe the early history of the Empire Mine in greater detail. Ore was first discovered in the area of the Empire mine in 1879-1880 by prospectors inspired by the profitable development of rich lead-silver deposits in the Nicholia district to the north. Due to a lack of resources, the ore deposits remained undeveloped. This changed in 1884 when additional discoveries (including part of what would become known as the Empire mine) were made, triggering a mining boom. The Empire Mine acquired its name in 1907 when the operatorship passed to the Empire Copper Company.

The Empire Copper Company accomplished the first significant advancement of the Empire Mine between 1907 and 1917. Development at the mine comprised between 20,000 and 25,000 feet of underground work. Peak historical production for the mine appears to have been 1917 when 5.5 million pounds of copper were recovered from approximately 71,000 tons of ore. Historical production seems to have been a mixture of both oxide and sulfide ore, with the majority of ore being extracted from no greater than 700 feet of depth, though ore was mined as deep as 1,100 feet. It appears that the oxidized ore was exceptionally high grade; early geological reports also cite sulfide ore grading 6% copper. The Empire Copper Company operated almost continuously from 1907 to 1921, shipping crude ores to Salt Lake smelters. In October 1921, Idaho Copper Company succeeded the Empire Copper Company and installed a mill and tramway. Milling began in 1924 and was ceased in 1930. The Mackay Exploration Company took over the property in 1939 under lease and bond agreements. Between 1964 and 1972, a variety of companies carried out drilling exploration. In 1975, Exxon Company explored copper and molybdenum. Exxon drilled ten holes that were also assayed for gold. By 1975 a total of 151 holes had been drilled on the property, almost all in the AP pit area.

The first systematic modern-day exploration was conducted from 1995- to 1997 by drilling 47 core holes. From 1999 to 2004 there is little information available regarding exploration or other activities. In December 2004, Trio Gold Corp. completed a 10-hole (700m) reverse-circulation and PQ-core drill program in the AP Pit area. In 2006 Journey Resources Corp. drilled 33 of the 65 holes proposed by Trio. The drill program successfully confirmed the grades and widespread copper, gold, and silver distribution in the AP pit area. The planned next phase of exploration, to complete the remaining 32 drill holes of the 65-drill hole schedule, was conducted in 2011. In 2013 Boxxer Gold Corp. initiated follow-up work on Trios 2005 metallurgical testing. No other work is known to have been completed between 2013 and Konnex's acquisition of the Project in 2015.

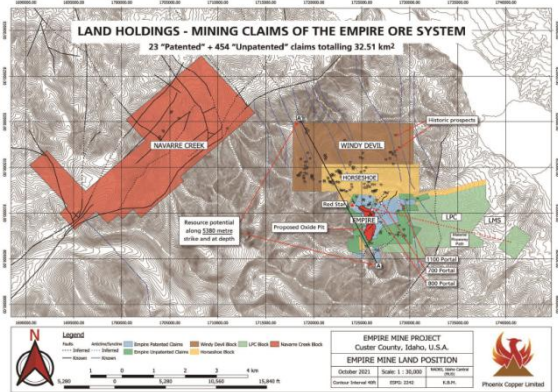
## GEOLOGY

The Geology in the area is controlled by "Basin and Range" tectonics as a result of crustal extension – whereby older rocks are raised up on "horsts" with younger rock infilling the "grabens" between. The mining licenses owned by Konnex are raised up on the horsts – the "With Knob Horst". The rocks are comprised of Lower Mississippian sediments with 4,000ft of distal turbidite and mudstone overlain conformably by 5,500ft of Mississippian limestone – mostly pure limestone with abundant layers of chert. Infilling the grabens are younger (Eocene) volcanic rocks (andesite to rhyolite flows and tuffs).

The mineralization is partially and genetically associated with the intrusion of the Mackay granitic stock – a complex intrusive consisting of separate intrusions of Quartz monzodiorite, granophyres, granite porphyry, and Mackay granite. Mineralization takes several forms all genetically related to hydrothermal fluids from the granitic intrusion to form skarns (garnet-pyroxene-magnetite) and veins in the granite itself and the host carbonates. Mineralization follows structures associated with the granitic intrusion and as replacements in the reactive carbonates. The mineralization has been traced from the Empire open-pit resource to the old White Knob mine – a distance of 2,500m. Along the strike, length is the Red Star resource discovered and delineated by Phoenix in 2018. Summarizing the Empire geology, we can say that a potentially significant sulfide resource, including contained gold, appears to underlie the surface oxide resource at the mine. Moreover, beneath this sulfide resource, there is the possibility of a molybdenum-tungsten deposit, with the Empire geochemistry flagging analogies with notable and sizeable molybdenum-tungsten deposits.

## EMPIRE ORE SYSTEM EXPLORATION UPSIDE ALONG 5.4 KM MINERALISED STRIKE

Estimated less than 1% of the potential ore system at Empire has been explored



Source: Phoenix Copper Limited



## MORE WORK, MORE OPPORTUNITIES, BIG INCREASES IN RESOURCES ESTIMATED

### Red Star A New Silver-Lead Discovery – Quick to Market Project

The Red Star property is located 330 meters northwest along strike from the present northern limits of the Empire Mine Open Pit Project and appears to be part of the same mineralized system. The Red Star could be a quick-to-market project. The deposit was discovered in 2018 during field mapping and reconnaissance of the northern patented claim boundary and adjacent Horseshoe Block. Three holes drilled in 2018 plus surface sampling showed a transition to a high-grade silver-lead system. In early May 2019, Hard Rock Consulting generated maiden NI 43-101 compliant resource of 1.6 million silver equivalent ounces, with silver grades as high as 1,100g/tons and lead grades above 21%. Hard Rock estimated a maiden inferred resource at Red Star of 103,000 tons, containing 577,000 ounces of silver, 3,988 tons of lead, 957 tons of zinc, 338 tons of copper, and 2,800 ounces of gold. In addition, from the report, 103,000 tons grading 173.4 grams per ton (g/t) silver, 0.85 g/t gold, and 3.85% lead, with minor copper and zinc. In 2020, 10 HQ-core holes were completed at Red Star, Core holes RSD20-01 through RSD20-04, and RSD20-06, returned assays of 116.9 g/t (3.76 ounces per ton) (oz/t) to 359.8 g/t (11.57 oz/t) silver and lead values from 1.17% to 7.79%, respectively.

Class	Tons	Ag	Ag	Au	Au	Pb	Pb	Zn	Zn	Cu	Cu
	(x1000)	g/t	Oz	g/t	oz	%	lb	%	lb	%	lb
	(x1000)		(x1000)		(x1000)		(x1000)		(x1000)	%	(x1000)
Inferred	114.13	173.4	577.3	0.851	2.8	3.85	8,791.20	0.92	2,108.80	0.33	745

The management team of Phoenix was very encouraged about the discovery and believed that the resource could be substantially enlarged with additional exploration. In 2020 the Company drilled another ten holes. Results from the drilling confirmed significant mineralization at Red Star found the previous year – both south of the discovery outcrop and in the down-dip.

The Company commissioned a ground-based magnetics geophysical survey better to understand the nature and orientation of potential mineralization and to inform the location and direction of a further drilling program. Highlights of the deposit discovery include; four high-amplitude areas of interest have been identified, including the discovery outcrop that was drilled in 2018 and 2020; the size and amplitude of the three new areas of interest appear to be significantly greater than that of the discovery outcrop, which generated a maiden resource in 2018; further north-northeast magnetic anomalies trending from the Red Star discovery outcrop also identified, and the survey results will be used to guide the location and direction of the 2022 3,000 meter diamond core drilling program at Red Star and Horseshoe. The drilling program is planned to expand the NI 43-101 compliant 2018 maiden resource of 103,500 tons, which resulted from the 2018 drilling,

Red Star is at an exciting resource development stage – 2022 could show big increases in resources for the Project – given the surface expression of the mineralized zone, drilling the proposed 2022 program, and the understanding of the geophysical expression of the underlying mineralization. The management of PXC is very optimistic that the current exploration program could enlarge the 103,500-tonne resource to over 700,000 tons at silver and lead grades and it the next step well over 1.0 million tons, and most of it in the Measured category.

On January 12, 2022, Phoenix Copper announced the latest drilling results from the Red Star Program. The program was designed to test

and help delineate the boundaries of the magnetite zones, seven exploratory reverse circulations (RC) holes were drilled, totaling 876.3 meters all of which encountered further mineralization. Silver and lead grades encountered in the drilling were consistent with, or exceed, those reported in the Red Star maiden resource; copper, gold, and zinc are also encountered in significant quantities. This drilling confirmed that the surface geology and geochemistry showed a continuous northerly trend toward the Horseshoe-White Knob project as expected, and are reliable and provide prospective drill targets for a planned 3,000 m core drilling program in 2022,

Red Star Reverse Circulation Drilling Results January 12, 2022

Drill Hole Number	Intersection Meters*			g/tons		%	%	%	Mo	W
	From	To	Interval	Au	Ag	Cu	Pb	Zn	ppm	ppm
RS21-01	38.1	65.5	27.4	0.8	14.9	0.69	0.00	0.03	7.6	5.0
including	50.3	57.9	7.6	2.3	38.6	1.61	0.00	0.03	2.0	5.0
including	51.8	53.3	1.5	3.9	50.7	2.71	0.01	0.04	3.0	5.0
RS21-02	51.8	54.9	3.0	2.0	2.7	0.01	0.05	0.06	7.0	5.0
and	82.3	118.9	36.6	0.5	24.0	0.52	0.28	0.64	147.3	61.3
including	82.3	96.0	13.7	0.2	23.9	0.07	0.72	1.46	380.1	24.4
including	83.8	85.3	1.5	0.6	92.3	0.18	3.13	2.77	2950.0	90.0
including	102.1	109.7	7.6	1.2	49.0	1.35	0.00	0.16	4.8	6.0
RS21-03	30.5	32.0	1.5	0.1	13.2	0.28	0.01	0.29	2.0	5.0
RS21-04	50.3	62.5	12.2	0.4	16.5	0.12	0.07	0.04	47.9	293.8
including	53.3	57.9	4.6	0.9	24.5	0.15	0.08	0.04	60.3	403.3
RS21-05	7.6	15.2	7.6	0.2	9.2	0.16	0.01	0.04	1.4	5.0
RS21-05	35.1	42.7	7.6	0.3	17.4	0.20	0.02	0.21	2.2	8.0
including	39.6	42.7	3.0	0.7	28.9	0.29	0.02	0.24	2.5	12.5
RS21-06	173.7	176.8	3.0	0.5	7.9	0.29	0.01	0.12	4.0	10.0
RS21-07	42.7	65.5	22.9	0.0	2.2	0.01	0.01	0.21	2.4	5

\* Length along hole (not equivalent to true width).

### A Mine Production At Red Star Could Add 30 pence per share to our valuation

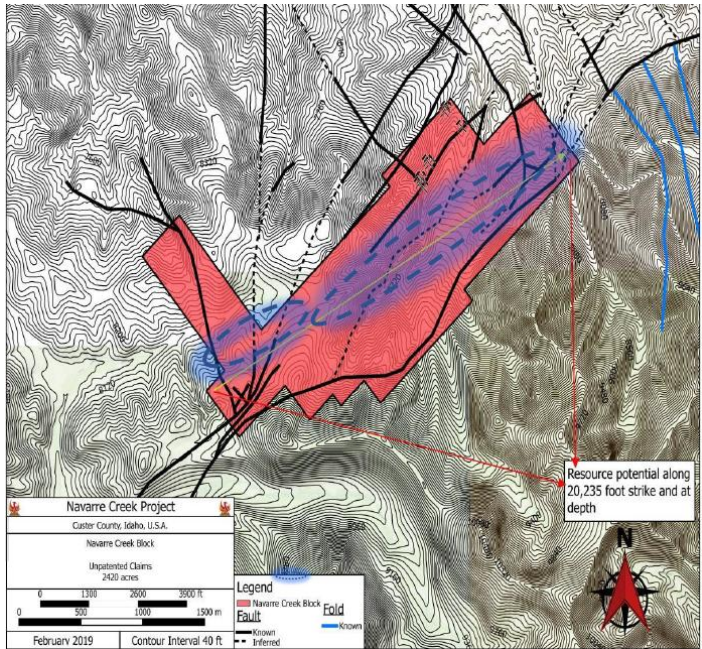
According to a report released on January 23, 2020, Phoenix Copper planned to complete a drilling program on Red Star to generate a Measured and Indicated resource sufficient to justify a small underground "adit" mine with a flotation process plant to produce lead-silver, copper-gold, and zinc concentrate. The scale of operations was estimated to be 450 tons of ore a day or 155,000 tons a year. The Company reported the value of the contained metal in the NI 43-101. Red Star resource was US\$260/ton of ore at that times metal prices or US\$40.3 million a year at a production rate of 155,000 tons of ore a year. Capital costs were anticipated to be approximately US\$30 million. If the Company develops the Project, using the production and financial parameters calculated, we estimated the fair value to be \$50 million, adding *0.30 pence per share to our valuation*.

### Navarre Creek – A Very Prospective Volcanic-Hosted Gold System

The Navarre Creek claim block, comprised of 3,577 acres, is located approximately five kilometers west-northwest of PXC Empire Mine Project and is in an early stage of development. The property (2,420 acres) was acquired in 2019 as a gold exploration project, and Phoenix increased its land position in 2021 to 3,577 acres. The land block now hosts a 6.1 km gold strike length within a 14.48 km<sup>2</sup> area. The geology is similar to the volcanic-hosted goldfields on the Carlin Trend in Nevada, home to several multimillion-ounce gold deposits. The additional acreage covers additional prospective opportunities and will be important for executing future drilling and subsurface exploration and following on from the promising surface sampling campaign in 2020. This program demonstrated anomalously high gold grades in the initial geochemical samples, indicative of higher-grade values in less weathered rocks below the surface oxidized zone. These grades were similar

to the historic grades encountered in some of the early exploration phases of Carlin-style deposits in northern Nevada.

During the summer of 2020, the Phoenix exploration team mapped and took ninety samples from the property with some early staged, very encouraging results. Of the ninety samples, fifty-three were above the detection limit for gold, and twenty-five were above the detection limit for silver. The highest gold grade was 0.569g/t. The samples confirmed a strong correlation between elevated gold values and elevated antimony values, typical in Carlin-type epithermal gold systems. The geochemical analysis provided valuable information for future sampling and drill targeting.



Source: Phoenix Copper Limited

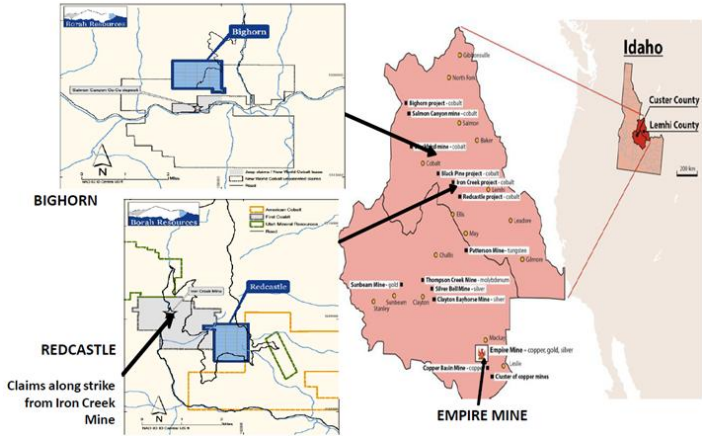
Two geophysical surveys were conducted during the 2021 field season at the Navarre Creek property. Phoenix Copper executed approximately 169 line-km of total field magnetic measurements and completed an airborne hyperspectral survey of the Navarre Creek area to identify prospective exploration targets in an area, many of which are largely concealed by glacial till. The results confirm the Company’s geological and geochemical testing results from previous field studies, in particular the iron-rich Lehman Fault and Bear Cave gossan. Based on the new geophysical surveys, the Phoenix development and exploration model has been confirmed and will provide the basis for further exploration, including a planned drilling program in 2022.

A few days ago, a piece of important news hit the wire; Phoenix Copper announced that two geophysical surveys conducted at the Navarre Creek property confirmed that two distinct intrusive bodies were identified. They were partially concealed below glacial till showing strong magnetic signatures which complement the existing jasperoid outcrops. Why this is so important, because the presence of jasperoids is found in the Carlin-style gold deposits and indicates a significant resource potential for the Navarre deposit. The results of these surveys, together with the previous exploration results, highlight the prospectivity of the claim block. These positive results will drive further exploration and drill targeting in 2022. *At the current very exciting stage of project development, we assign a project value of \$6 million; this is what a similar gold project is worth in Idaho. However, the confirmation of the Carlin-style gold deposits and further drilling programs potentially lead to an initial resource estimate and significantly add more value to the Company.*

The Idaho Cobalt Projects – Rush On Cobalt Is Starting

In late 2017 PXC added to its exploration and development portfolio in Idaho. The two properties are located in the Idaho Cobalt Belt, in Lemhi County. PXC’s wholly-owned Idaho registered company, Borah Resources Inc., has staked and filed the Bighorn and Redcastle copper-cobalt properties. The Bighorn Property consists of twenty-nine unpatented claims over 580 acres and is located approximately twenty-two miles northwest of the town of Cobalt in the northern portion of the Idaho Cobalt Belt. The Redcastle Property consists of thirty unpatented claims over 600 acres that adjoin the Iron Creek Mine property currently held by US Cobalt. Redcastle is located directly south of Iron Creek and along the strike of the mineralized Jackass Creek Horizon of the Yellowjacket Formation. Redcastle is eleven miles south-southeast of the town of Cobalt and thirty-two miles southeast of the Bighorn property. Phoenix Copper’s geological team based at the Empire Mine identified these properties following their previous experience working on the Cobalt Belt north of the Empire Mine. They were aware of highly prospective areas that had not yet been claimed by the Canadian juniors who currently dominate this historic copper-cobalt belt,

COBALT – BIGHORN & REDCASTLE CLAIMS IN IDAHO



Source: Phoenix Copper Limited

Initial fieldwork started in 2017; twenty surface grab samples were collected at the Redcastle iron-rich copper/cobalt property and twenty-six samples at the Bighorn copper/cobalt property. All of the sample results showed cobalt mineralization above detection limits and ranged from 2.0 ppm to 3120 ppm, or 0.31% Co. Two samples at Bighorn showed significant copper value. The sample results showing cobalt values greater than 100 ppm and copper values greater than 0.5% Cu are considered significant for the purposes of future exploration. With the Company’s focus on developing the Empire, Red Star, and Navarre projects, further exploration on both properties will resume in the foreseeable future.

Property	Sample #	Co ppm	Cu%
Bighorn	NCOB-19	1360	1.55
	NCOB-20	1705	4.12
Redcastle	SCOB-14	148	-
	SCOB-18	3120	-
	SCOB-19	209	-
	SCOB-20	370	-
	SCOB-23	209	-
	SCOB-24	153	-



In May 2021, Phoenix Copper entered into an earn-in agreement with First Cobalt Idaho, the wholly-owned subsidiary of Toronto-based First Cobalt Corporation, now Electra Battery Materials Corporation, (TSX.V: ELBM) (OTCQX: ELBMF) in respect of the Phoenix Redcastle cobalt property. The Redcastle property shares a common border with First Cobalt's Iron Creek, and this mine currently hosts indicated cobalt and copper resources of 2,37 million tons, grading 0.32% cobalt and 0.61% copper. The inferred cobalt and copper resources have been estimated at 2.95 million tons at 0.28% cobalt and 0.68% copper. ELBM, the TSX quoted company, has approximately C\$147 million market capitalization. First Cobalt has been drilling from surface and underground workings at Iron Creek since 2018. The company is well-positioned to carry out exploration at PXC Redcastle property adjacent to Iron Creek with the expertise, staffing, and infrastructure already in place locally. This Agreement will enable the development of the Redcastle property to progress, at no cost to Phoenix, while the management team can concentrate their efforts to bring the Company's flagship Empire Mine into production.

The clean-energy revolution is unleashing a rush on cobalt. Cobalt has become one of the most in-demand minerals today due to its vital role in rechargeable batteries used in electronics and especially the surging electric vehicle market. With 98% of cobalt production coming as a by-product of the cyclical nickel and copper mining sector, and roughly 70% of cobalt sourced in the conflict-ridden Democratic Republic of Congo (DRC), the need is high for primary cobalt production that is secure and domestic. China processes 80% of global intermediates producing cobalt metal or cobalt salts,

With the skyrocketing demand for minerals needed to build electric vehicles, that path could lead through Idaho. In Lemhi County, about 25 miles west of the town of Salmon, the Australian firm Jervois Mining is on track to open later this year what would be the only underground cobalt mine in the United States.

Mining cobalt is important, companies need to make sure that cobalt is being extracted in an environmentally responsible way. In the US, the federal government directed to expand domestic production of critical minerals and "next-generation" electric vehicle batteries. Idaho sits atop the biggest deposit of cobalt in North America, the Jervois mine is expected to be the first active cobalt mine in Idaho. According to a 2019 Idaho Geological Survey presentation, of about 6,000 new mining claims filed in the previous year, roughly 5,000 were in Idaho's cobalt belt.

The Jervois will operate a water treatment plant on-site, and the mine will operate on a zero-discharge basis with the water used in their processes, so there will be no degradation to rivers and streams. Those safeguards could make Idaho cobalt even more attractive to companies, like the automaker Tesla, that have recently made commitments to cleaning up their supply chains. The world's cobalt supply relies on mines in countries without the environmental and worker-safety standards in the United States.

The Jervois mine will employ up to 120 people during construction and create a total of 180 full-time positions at the mine site, including contractors. The mine is scheduled to begin operating in the second half of 2022. The Jervois site is just the first of what will likely be many more cobalt mines in Idaho, and these company will set the bar high in terms of environmental standards.

## PHOENIX COPPER VALUATION

1. We have valued PXC using an NPV model for the Empire Project, incorporating a 7.5% discount rate, a mine production to 2032, and based our valuation on current commodity prices. Based on these assumptions, our fair value for the Company's *Empire project is 96p per share*. At this early stage of its development, the Company's share price highly depends on the copper price.
2. According to a report released on January 23, 2020, the Company reported the value of the contained metal in the NI 43-101 Red Star resource was US\$260/ton of ore at that times metal prices or US\$40,3 million a year at a production rate of 155,000 tons of ore a year. Capital costs were anticipated to be approximately US\$30 million. If the Company develops the Project, using the production and financial parameters calculated, and applying the current commodity prices, we estimated the fair value of approximately \$50 million, *adding 30 pence per share to our valuation*,
3. For the Phoenix gold property at Navarre Creek, we use very conservatively \$6.0 (3.6 pence/share) in our fair value calculation. Despite the significant outcome of the two geophysical surveys conducted at the Navarre Creek property, jasperoids are found in the potentially Carlin-style gold deposits. It indicates a considerable resource potential for the Navarre deposit. *This play is still in its early stage and has the potential to be revalued significantly*.
4. The rush on cobalt just started, and the Jervois mine in Idaho is going into production during the second half of 2022. According to a 2019 Idaho Geological Survey presentation, of about 6,000 new mining claims filed in the previous year, roughly 5,000 were in Idaho's cobalt belt. Sample results from PXC properties showed very positive cobalt mineralization above detection limits and ranged from 2,0 ppm to 3120 ppm, or 0,31% Co, PXC has an earn-in agreement with Electra Battery Materials Corporation. This Agreement will enable the development of the Phoenix property to progress at no cost to Phoenix. Despite all these encouraging developments, we assigned a fair value of \$6 million for the two cobalt projects in our fair value calculation and the fact that Phoenix has shown there to be elevated levels of cobalt in some samples in its ground geological surveys. *The two cobalt projects added 3 pence per share to our fair value*.

### Phoenix Copper Ltd. Valuation

Valuation Approach		Valuation	Valuation	Valuation
		US\$m	£m	GBP/share
Empire Mine (MoL)	NPV 7,5%	146.7	119.0	98
Red Star (silver)	NPV 7,5%	50.0	37.0	30.6
Navarre (gold)	SISM (e)	6.0	4.4	3.7
Cobalt Project	SISM (e)	5.0	3.7	3.1
Cash	SISM (e)	14.0	10.4	8.6
<b>SISM Investors Unrisked Valuation</b>				<b>£1.44</b>
Number of shares outstanding 121,000,000		GBP/US\$ 1.35		



## A VERY EXPERIENCED MANAGEMENT TEAM

### Marcus Edwards-Jones, MA Executive Chairman

Marcus Edwards Jones, the Chairman, has significant experience in global institutional capital raisings. MD of Lloyd Edwards-Jones S.A.S., a Paris and Dubai-based finance boutique specializing in selling equities to institutional clients and advising resources companies. He graduated from Oxford University with an MA in Ancient and Modern History. He recently served as a Non-Executive Director of Georgian Mining,

### Ryan McDermott, BSc Chief Executive Officer

Ryan McDermott, the CEO, has over 25 years of experience in base and precious metals mining. Positions include Director of Mining Operations in Idaho and Montana; general manager in western USA and Alaska. He has worked for Kinross Gold, Plexus/Sovereign, and Kleinfelder West. He was recently responsible for permitting a new mine into production in Idaho for GHRMC. Graduate of Idaho State University with a BSc degree in Geology. He joined Phoenix Copper in March 2017,

### Richard Wilkins, MA, FCA Chief Financial Officer

Richard Wilkins, CFO, is a Chartered Accountant. He was founding director of Zervashan Gold in Tajikistan (Nelson Gold: TSX) and co-founder and director of Oxus Gold (AIM) which produced over 500,000 oz of gold and 1,2m oz of silver from the Amantaytau Goldfields mine in Uzbekistan. Richard is a non-executive director of Goldstone Resources (AIM). A graduate of Pembroke College, Oxford,

### Zach Black General Manager, Konnex Resources

Zach Black, General Manager. Zack, has 18 years experience in the mining industry in base and precious metals, He was a principal founder of Hard Rock Consulting (HRC) of Lakewood, Colorado, where he worked on mining projects worldwide. He was COO of Endomines, responsible for the Friday Mine, an operating underground gold mine in Idaho. He holds a Bachelor of Science degree in Geological Engineering from the University of Nevada, Reno.

### Lenie Wilkie ESG Programme Lead, Konnex Resources

Lenie Wilkie, ESG Programme Leader, Lenie was born and raised in Mackay, Idaho. She has an integral sense of values rooted in environmental care and social involvement. She is an active participant in the community using her skills and time for local economic and business development. She is both a regular volunteer and a leader in the community. She has a Bachelor of Science degree in Corporate Training from Idaho State University.

### Non-Executive Directors

**Roger Turner, NED,** and CTO, he is a co-founder of Phoenix Copper Limited and has spent over 40 years in the mining industry. He was previously CEO of Nelson Gold (TSX) and co-founder and CEO of Oxus Gold (AIM) which built gold mines in Tajikistan and Uzbekistan. He has mine management in Manitoba and British Columbia on copper operations and Senior Mining Engineer for Rio Tinto Plc in London. A Camborne School of Mines Graduate mining engineer with an MSc in Economic Geology from Leicester University.

**Andre Cohen, NED,** is a highly experienced banker who has advised on significant fundraising and international transportation and infrastructure financings. He graduated in Economics from Sydney and Yale,

**Jason Riley, NED,** is from Phoenix and CEO of ExGen Resources (holds a 20% interest) in Konnex Resources alongside Phoenix with 80%). He is Chairman of Konnex Resources. He has over 15 years of experience in North American investment and capital markets - He earned a Bachelor of Commerce degree from the University of British Columbia,

**Catherine Evans NED** has over 20 years of experience in institutional investment sales in the UK, Europe, Hong Kong, and South Africa. She started her career with a US brokerage firm before joining Pictet Asset Management, then spent ten years working in alternatives, specifically hedge funds, before joining the founding team of Fundsmith as Institutional Sales Director. She has a BA from the University of South Africa in English and Psychology and an MA from the University of Kingston.

## Economic Model of the Empire Mine (LoM) – SISM Investors updated analysis of the PEA

*SISM Investors assumed metal prices at the current price level of \$4.50/lb copper, \$1.63/lb zinc, \$1,810/oz gold, and \$22.7/oz silver for their project valuation.*

Year of Production	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total LoM
Annual Production											
Copper (t)	4,156	8,312	8,312	8,312	8,312	8,312	8,312	4,156			<b>58,184</b>
Zinc (t)	957	1,913	1,913	1,913	1,913	1,913	1,913	957			<b>13,391</b>
Gold (ounces)				16,750	16,750	16,750	16,750	16,750	16,750	16,700	<b>117,200</b>
Silver				660,575	660,575	660,575	660,575	660,575	660,575	660,575	<b>4,624,025</b>
Annual Revenue											
Copper	41,230,803	82,461,606	82,461,606	82,461,606	82,461,606	82,461,606	82,461,606	41,230,803			577,231,245
Zinc	3,443,400	6,886,800	6,886,800	6,886,800	6,886,800	6,886,800	6,886,800	3,443,400			48,207,600
Gold				30,317,500	30,317,500	30,317,500	30,317,500	30,317,500	30,317,500	30,227,000	212,132,000
Silver				14,995,053	14,995,053	14,995,053	14,995,053	14,995,053	14,995,053	14,995,053	104,965,368
<b>Gross Revenue</b>	<b>44,674,203</b>	<b>89,348,406</b>	<b>89,348,406</b>	<b>134,660,959</b>	<b>134,660,959</b>	<b>134,660,959</b>	<b>134,660,959</b>	<b>89,986,756</b>	<b>45,312,553</b>	<b>45,222,053</b>	<b>942,536,213</b>
Net Smelter Revenue (5%)	2,233,710	4,467,420	4,467,420	6,733,048	6,733,048	6,733,048	6,733,048	4,499,338	2,265,628	2,261,103	47,126,811
Freight/Insurance	2,142,777	4,285,553	4,285,553	7,477,447	7,477,447	7,477,447	7,477,447	5,334,671	3,191,894	3,191,658	52,341,895
<b>Net Revenues</b>	<b>40,297,717</b>	<b>80,595,433</b>	<b>80,595,433</b>	<b>120,450,464</b>	<b>120,450,464</b>	<b>120,450,464</b>	<b>120,450,464</b>	<b>80,152,747</b>	<b>39,855,031</b>	<b>39,769,291</b>	<b>843,067,508</b>
Operating Costs											
Mining/Processing	16,767,193	33,534,387	33,534,387	53,466,887	53,466,887	53,466,887	53,466,887	36,699,693	19,932,500	19,873,000	374,208,706
G&A incl. Prop. Tax	3,500,000	3,500,000	3,500,000	4,200,000	4,200,000	4,200,000	4,200,000	1,250,000	1,250,000	1,250,000	31,050,000
Total Operating Costs	20,267,193	37,034,387	37,034,387	57,666,887	57,666,887	57,666,887	57,666,887	37,949,693	21,182,500	21,123,000	405,258,706
<b>EBITDA</b>	<b>20,030,523</b>	<b>43,561,046</b>	<b>43,561,046</b>	<b>62,783,577</b>	<b>62,783,577</b>	<b>62,783,577</b>	<b>62,783,577</b>	<b>42,203,054</b>	<b>18,672,531</b>	<b>18,646,291</b>	<b>437,808,801</b>
<b>EBITDA Margin</b>	<b>49.71%</b>	<b>54.05%</b>	<b>54.05%</b>	<b>52.12%</b>	<b>52.12%</b>	<b>52.12%</b>	<b>52.12%</b>	<b>52.65%</b>	<b>46.85%</b>	<b>46.89%</b>	<b>51.27%</b>
Pre-Production Capital Costs											
Cash flow	15,030,523	38,561,046	-3,438,954	55,783,577	55,783,577	55,783,577	55,783,577	40,703,054	17,172,531	17,146,291	348,308,801
Post-Tax Cash flow	15,030,523	38,561,046	-3,438,954	51,320,891	51,320,891	51,320,891	51,320,891	37,446,810	15,798,728	15,774,588	324,456,306
Taxes	0	0	0	4,462,686	4,462,686	4,462,686	4,462,686	3,256,244	1,373,802	1,371,703	23,852,495



## Important Disclosures and General Disclaimer

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Ernest C. Schlotter has extensive experience in the North American stock market. JP Morgan (Switzerland) and UBS in Switzerland employed him before founding SISM Research in 1995. SISM Research was a founding member of the FIRST Research Consortium, which took steps to ensure the independence and integrity of SISM's published research that exceed those of the CFA Institute Code of Ethics and Standards of Professional Conduct and the CFA-NIRI Guidelines by following the exacting "Standards for Independent Research Providers," which were also in accordance with the guidelines set forth by U.S. Securities and Exchange Commission's Advisory Committee on Smaller Public Companies. *As an employee of SISM Research, Ernest C. Schlotter was awarded 4-star analyst by Starmind, a former Thomson Reuters Company, now Refinitiv, for EPS accuracy and stock target price estimation. In July 2021, SISM Research changed the Company name to SISM Investors.*