

# LION COPPER AND GOLD CORP. ANNOUNCES POSITIVE UPDATED MINERAL RESOURCE ESTIMATE FOR ITS FLAGSHIP MACARTHUR COPPER PROJECT

January 13, 2022, Vancouver, British Columbia — Lion Copper and Gold Corp. (the "Company", "Lion CG") (TSX-V: LEO) (OTCQB: LCGMF) is pleased to announce the results of an updated mineral resource estimate for the MacArthur Copper Project (the "Project") located in Mason Valley, Nevada. The mineral resource estimate was prepared pursuant to National Instrument 43-101 ("NI 43-101") by Independent Mining Consultants ("IMC") of Tucson, Arizona. A technical report in the form required pursuant to NI 43-101 disclosing the resource estimate will be filed on SEDAR within 45 days from the date of this news release. The resource estimate includes total contained copper within a pit shell using a variable recovery of four relevant oxidation material types.

# **Highlights:**

- Measured and Indicated Resource: 300,290,000 tons, grading 0.167% TCu containing 1,000,383,000 pounds of total copper
- Inferred Resource: 154,792,000 tons, grading 0.151% TCu containing 466,350,000 pounds of total copper
- The updated mineral resource estimate results in an increase of over 55% of the Measured and Indicated Resource compared to the prior resource estimate as constrained within the 2014 PEA pit design (MacArthur Copper Project Amended NI 43-101 Technical Report Preliminary Economic Assessment, January 17, 2014)
- The oxide and transition mineralized envelope of the deposit is confirmed to be open to the south-southeast. Additional sulfide mineralization remains open to the north and east

Travis Naugle, CEO of Lion CG states "This substantial increase to the resource is a result of our recent drilling and an improved understanding of the MacArthur mineralization. We are very excited about such a significant upgrade in the mineral resource for the MacArthur copper deposit and the implications this may have on future decisions for the Project. The veracity of the resource modelling approach undertaken by IMC instills confidence in these positive findings. We are intrigued by the mineralization remaining open in numerous directions and look forward to evaluating further potential resource growth in both oxide and sulphide mineralization."

#### **Mineral Resource Estimate**

The updated Measured and Indicated and Inferred Resources for the MacArthur Copper Project are reported in Table 1 as set out below. The changes to the mineral resource are based on the 2021 infill drill and assay program, updated geology shapes, and updated metallurgical review and analyses.

**Table 1: Mineral Resource Estimate** 

MEASURED + INDICATED RESOURCES							
MACARTHUR COPPER PROJECT							
JANUARY 13, 2022							
Material Type	Cutoff Grade %TCu	Ktons	Average Grade % TCu	Contained Copper (lbs x 1000)			
Leach Cap	0.06	15,610	0.120	37,482			
Oxide	0.06	226,501	0.159	718,742			
Transition	0.06	43,382	0.213	185,049			
Sulphide	0.06/0.08	14,797	0.200	59,110			
Total		300,290	0.167	1,000,383			

INFERRED RESOURCES  MACARTHUR COPPER PROJECT  JANUARY 13, 2022						
Material Type	Cutoff Grade %TCu	Ktons	Average Grade % TCu	Contained Copper (lbs x 1000)		
Leach Cap	0.06	17,734	0.085	30,218		
Oxide	0.06	105,183	0.146	307,289		
Transition	0.06	23,279	0.202	94,185		
Sulphide	0.06/0.08	8,596	0.202	34,658		
Total		154,792	0.151	466,350		

- (%) = percent, TCu = total copper, lbs = pounds, Ktons = short tons x 1000
  - 1) The cutoff grades used for reporting the mineral resources are at or above the internal cutoff grades of between 0.03% and 0.06% TCu for the Leach Cap, Oxide and Transition zones. The sulphide zone internal cutoff grades are 0.06% TCu for the MacArthur and North zones and 0.08% TCu for Gallagher because of a higher acid consumption
  - 2) Mr. Herbert E. Welhener, MMSA-QPM, an employee of Independent Mining Consultants, Inc. is the Qualified Person for the Mineral Resource estimate
  - 3) The "reasonable prospects for eventual economic extraction" shape has been created based on a copper price of US\$3.75/lb, employment of heap leach extraction methods, processing costs of US\$1.56 or \$2.20 per short ton, and mining costs of \$1.92/short ton for rock and \$1.46/short ton alluvium, a variable copper recovery, and tonnage factor of 12.5 cubic feet per short ton for in situ rock
  - 4) Rounding as required by Best Practices established by the CIM reporting guidelines may result in slight apparent differences between tonnes, grade and contained metal content

# **Cautionary Note to Investors**

While the terms "measured (mineral) resource", "indicated (mineral) resource" and "inferred (mineral) resource" are recognized and required by National Instrument 43-101 - *Standards of Disclosure for Mineral Projects*, investors are cautioned that except for that portion of mineral resources classified as mineral reserves, mineral resources do not have demonstrated economic viability. Investors are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be upgraded into mineral reserves. Additionally, investors are cautioned that inferred mineral resources have a high degree of uncertainty as to their existence, as to whether they can be economically or legally mined or will ever be upgraded to a higher category.

# **Resource Estimate Methodology**

#### Drill Hole Database

The resource estimate was completed using data from 747 drill holes for a total of 299,045 feet drilled. These holes include 23 holes drilled in 2021; 10 as infill holes and 13 holes drilled for metallurgical samples. The total of core drilling is 64,681 ft in 102 holes and the total rotary drilling is 234,360 ft in 636 holes.

# Geologic Model

The MacArthur Copper Project is an oxidized portion of a porphyry copper system that has been subjected to several weathering, oxidization and enrichment cycles. The copper mineralization is hosted in altered and weathered Middle Jurassic granodiorite and quartz monzonite intruded by west-northwesterly-trending, moderate to steeply north-dipping quartz porphyry dike swarms.

The geology of the deposit has been interpreted on forty-one north-south sections and on thirty-three east-west sections. The deposit was interpreted into four mineral type zones and definition completed as three-dimensional digital models.

Both lithology and oxidization states have been incorporated into the block model based upon geologic domains developed from the drill hole geologic logs. The oxidization zones of leach cap, oxide, transition, and sulphide have been incorporated into the block model and are used as boundaries for the estimation of total copper grades using an inverse distance cubed estimation method. Surfaces of the oxidation zones have been used to create domain boundaries and used to code the assay, composite, and block model. The block model has been created to encompass all of the drill holes available, within 25ft x 25ft x 25ft (vertical) blocks. In plan view, the resource block model covers an area of 14,500 ft in the north-south direction and 18,100 ft in the east-west direction. The block model encompasses three copper mineralization deposits: MacArthur, North Area and Gallagher.

The mineral resource is tabulated within a defined open pit shell based on economic inputs developed from the metallurgical test work and engineering completed on the project to date. The pit shell economics are based on the premise that the Project will employ a heap leach, SX-EW recovery process. The shapes created by open pit optimization software used the following parameters:

• Copper price = US\$3.75/lb

• Leach Cap - recovery of total copper grade = 60%

• Oxide zone - recovery of total copper grade = 71%

• Transition zone - recovery of total copper grade = 65%

• Sulphide zone - recovery of total copper grade = 40%

#### **Block Model Validation**

The model was validated through comparisons of grades, grade distribution and tonnage-grade curves of the ID grades with the distribution of drill hole composited grades. Comparisons of the different estimation techniques (Inverse Distance, Ordinary Kriging and Nearest Neighbor) show similar statistics and spatial distribution.

## **Qualified Person**

The MacArthur mineral resource estimate was prepared by Mr. Herbert E. Welhener, MMSA-QPM of Independent Mining Consultants, Inc., a Qualified Person within the meaning of NI 43-101.

The Qualified Person has reviewed and accepts the data handling protocol followed for the historic information (as presented in the 2014 PEA) used for the development of the mineral resource along with the QA/QC analysis of the 2021 drilling results by standards, blanks and duplicate assays and the incorporation of this data into the estimate.

## **About Lion CG**

Lion Copper and Gold Corp. is a Canadian-based company advancing its flagship MacArthur Copper Project in Mason Valley, Nevada, in addition to advancing its exploration projects including the Chaco Bear and Ashton properties in highly prospective regions in British Columbia, Canada.

## On behalf of the Board of Directors,

Stephen Goodman President

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Some statements contained in this news release are forward-looking statements. These statements are identified in this news release by words such as "believes", "anticipates", "intends", "has the potential", "expects", and similar language, or convey estimates and statements that describe the Company's future plans, objectives, potential outcomes, expectations, or goals. Since forward-looking statements are based on assumptions and address future events and conditions, by their very nature they involve inherent risks and uncertainties. In particular, forward looking statements in this news release include that the mineral resource may be expanded due to future exploration work on the MacArthur project. These statements are subject to risks and uncertainties that may cause results to differ materially from those expressed in the forward-looking statements. Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date thereof. The Company does not undertake to update any forward-looking statement that may be made from time to time except in accordance with applicable securities laws.









