

# Surebet Delivers Exceptional Metallurgical Recoveries of 98.2% Gold Inclusive of 38.1% Free Gold from Gravity

## **Metallurgical Test Result Highlights:**

- Gravity + flotation tests demonstrate exceptional recoveries of Gold, Silver, Lead and Zinc using a combination of conventional gravity and flotation techniques.
- **♣** Gold recovery reaches 98.2% and Silver 86.4% in combined gravity and bulk flotation test work.
- Gravity recoverable Gold alone is an impressive 38.1% suggesting a considerable amount of Gold can be produced as doré bars on site.
- **↓** Flotation tests indicate a precious metal-rich Lead-concentrate capturing an additional 52.5% of Gold and 62.6% of Silver as well as 75.4% of Lead can be collected into a low mass (7.7%, or 13-to-1, mass pull) product following gravity recovery.
- Such a high-grade concentrate product, grading approximately 2 ounces per tonne Gold, 55 ounces per tonne Silver and 12.9% Lead in this test case, is likely saleable to a large number of smelters in Canada or elsewhere around the world.
- Gravity plus Lead-flotation yields a strong 90.6% Gold and 73.1% Silver recovery.
- ♣ These impressive results come from gravity and flotation tests in which material was ground to 150 microns, a somewhat coarse size indicating modest power consumption will be required during milling.
- ➡ The Bond's Work Index, a measure of the intensity of power needed to grind rock is a moderately low, 12.25 kw-hr/tonne, providing further indication that power consumption should be relatively low for the project.
- These results suggest Goliath can potentially pursue non-cyanide ("CN") means of precious metal recovery at Golddigger, an environmentally favorable outcome.
- Given these exceptional results, Goliath sees a clear path toward developing a relatively low capital and operating cost milling scenario at Golddigger.

"Right on the heels of impressive drill results that indicate Surebet is a significant new discovery, the project has delivered very strong metallurgical results," commented Dr. Quinton Hennigh, Technical and Geologic Director of Crescat Capital, a strategic shareholder of Goliath Resources. "This test work clearly indicates the potential for a low capital, low operating cost milling operation at the Golddigger Project. Importantly, the use of conventional gravity and flotation to recover precious and base metals means that the use of CN may not be required here, a potentially big environmental advantage. High gravity recoverable Au means the project should be capable of generating doré bars on site. Most remaining Au and Ag are captured in a low mass, precious metal-rich Pb-concentrate that should have strong marketability. In short, the Surebet project displays enviable metallurgical qualities seen rarely in precious metal mining."

Toronto, Ontario – February 10, 2022 – Goliath Resources Limited (TSX-V: GOT) (OTCQB: GOTRF) (FSE: B4IF) (the "Company" or "Goliath") is pleased to announce exceptional metallurgical recoveries from the Surebet Zone at its 100% controlled Golddigger Property in the Golden Triangle, British Columbia. These results come on the back of a positive news release issued by the Company on January 11, 2022. It reported a 100% hit rate on 24 holes drilled during from Surebet Zone's 2021 maiden drill campaign that intersected significant high-grade gold-silver over 1 km of strike and 1.1 km down dip.

Test work was performed by Process Mineralogical Consulting Ltd. ("PMC"), a world-renowned Vancouver based metallurgical testing facility. A composite sample of combined core from 16 diamond drill holes completed at Surebet in 2021 was used. Therefore, these results are considered representative of the overall properties expected style of mineralization at Surebet. The sample was ground to a nominal 150-micron size then subjected to gravity recoverable gold ("GRG") test work. Following GRG testing, the material was then subjected to Pb-flotation followed by Zn-flotation tests.

Gravity recovery alone captures an impressive 38.1% of Au and 10.5% of Ag. This indicates that a processing scheme employing early gravity recovery should produce considerable Au in the form of doré bars. Gravity recovery is generally the cheapest means of Au recovery in the mining industry.

Pb-flotation concentrate generated after gravity gold testing captures an additional 52.5% of Au and 62.6% of Ag bringing recovered Au to 90.6% and Ag to 73.1%. Importantly, the mass pull to generate this Pb concentrate is 7.7%, or 13-to-1, a favorable outcome. Also favorable, this Pb-concentrate product grades approximately 2 opt Au, 55 opt Ag and 12.9% Pb, a clear indication that precious metal-rich concentrates can be made from Surebet mineralization. Such precious metal-rich concentrates are considered marketable to a large audience of smelting operations in Canada and overseas.

Final testing to produce a Zn-flotation concentrate captures an additional 7.6% of Au bringing overall Au recovery to 98.2%. An additional 13.3% of Ag is recovered bringing total Ag recovery to 86.4%. The mass pull for the Zn concentrate, 18.2%, or 5.5-to-1, is significantly higher than that of the Pb concentrate, and resulting Au and Ag grades are significantly lower. More work is needed to determine if a lower mass pull, higher precious metal grade can be achieved in Zn-flotation or bulk flotation concentrates.

The Bond's Work Index ("BWI"), a measure of energy needed to grind rock during milling, is a moderately low 12.25 kw-hr/tonne for Surebet mineralization. Many gold projects see a BWI significantly higher, +14 kw-hr/tonne. This bodes well for reduced power consumption and milling costs for the project. Results are presented in the table below.

## **Table of Metallurgical Data Presented in this News Release:**

Type of Metallurgical Test	Material	Weight		Assay				Distribution			
				Pb	Zn	Au	Ag	Pb	Zn	Au	Ag
		(g)	(%)	(%)	(%)	(gpt)	(gpt)	(%)	(%)	(%)	(%)
Initial Sample >>>	Surebet Metallurgical Test Sample	1602.34	100.00	1.3	1.2	8.8	212.2				
Gravity Recoverable Gold >>>	Pre-Flotation Gravity Con	3.64	0.23	-	-	1476.3	9803.8	-	-	38.1	10.5
Flotation >>>	Total Pb Flotation Concentrate	122.70	7.7	<u>12.9</u>	<u>4.9</u>	<u>60.5</u>	<u>1735.0</u>	75.4	31.0	52.5	62.6
	Total Zn Flotation Concentrate	291.30	18.2	1.0	4.4	3.7	155.0	14.4	66.5	7.6	13.3
	Bulk (Pb+Zn) Flotation Concentrate	414.00	25.8	<u>4.6</u>	<u>4.5</u>	<u> 20.5</u>	<u>623.3</u>	89.8	97.5	60.2	75.9
	Gravity Only >>>									<u>38.1</u>	<u>10.5</u>
% Recoveries >>>	Gravity + Pb Flot >>> 75.4 31.0									<u>90.6</u>	<u>73.1</u>
		Gravity + Pb Flot + Zn Flot >>>							97.5	<u>98.2</u>	<u>86.4</u>

Gravity and flotation methodologies are standard in the mining industry. Capitalization and operational costs of a mill encompassing a combined gravity-flotation scheme are relatively low when compared to more complicated technologies used by many other precious metal operations. Eliminating the need for CN could result in environmental advantages for Surebet. Goliath is extremely pleased with these initial metallurgical results and anticipates conducting further metallurgical testing as Surebet progresses.

### **Qualified Person**

Rein Turna P. Geo is the qualified person as defined by National Instrument 43-101, for Goliath Resources Limited projects, and supervised the preparation of, and has reviewed and approved, the technical information in this release.

#### **About Goliath Resources Limited**

Goliath Resources Limited is an explorer of precious metals projects in the prolific Golden Triangle of northwestern British Columbia and the Abitibi Greenstone Belt of Quebec. All of its projects are in world class geological settings and geopolitical safe jurisdictions amenable to mining in Canada.

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