

# Goliath Confirms Strong Gold and Silver Recoveries from Surebet in Low Mass Gravity+Flotation Concentrate Including 48.8% Free Gold from Gravity

## **Summary of Results:**

"Recent metallurgical test results indicate Surebet displays a number of optimal characteristics," **commented Quinton Hennigh, Technical and Geologic Director of Crescat Capital, a strategic shareholder of Goliath Resources.** "Even at a coarse grind size of  $P_{80}$  327  $\mu$ m, or 0.327 mm, minerals that are sought are readily liberated and recovered by gravity and flotation techniques. Overall recoveries of 92.2% gold, 86.5% silver, 94.2% lead and 96.9% zinc were achieved, and a concentrate weighing just 11.9% of the original sample mass was produced. **Gravity recovery of gold, 48.8%, is notably high.** This bodes well for future development of Surebet. Gravity and flotation techniques are generally less capital intensive to develop and lower cost to operate than other types of precious metal processing. Seldom does one see such simplistic, favorable metallurgy in a gold-silver project."

- **48.8% of gold and 10.3% of silver was captured in a low mass gravity concentrate**. A gravity concentrate grading 309 gpt gold and 1,341 gpt silver was generated in a product weighing just 1.47% of the original sample mass.
- ♣ Gravity tails were then subjected to bulk flotation and HydroFloat bulk cleaning yielding overall recoveries of 92.2% gold, 86.5% silver, 94.2% lead and 96.9% zinc into a concentrate weighing just 11.9% of the original sample mass. Final concentrate grades, gravity+flotation, were 73.2 gpt gold, 1,346 gpt silver, 10.36% lead and 7.69% zinc. Importantly, arsenic levels in the final product are a very low, just 0.24%, making this precious metal-rich product favorable to smelters worldwide.
- ♣ A schematic flow sheet based on recent metallurgical test work is presented in Figure 1. below.
- Examination of ground mineral particles indicates that even at the coarse grind size of  $P_{80}$  327  $\mu$ m, or 0.327 mm, most targeted minerals of economic interest appear free of gangue, or waste, minerals suggesting that even coarser grinding could yield similar favorable recovery results. Coarser grinding equates to lower input energy, a potentially important economic benefit for the Surebet project.
- These metallurgical test results indicate that the Surebet project can potentially be developed without the need for Cyanide.
- Gravity and flotation are less capital intensive than most other processing techniques for precious metal recovery; operating costs are generally low in comparison as well.
- ♣ Further test work is needed to determine if the mass of concentrates can be further reduced by removing barren pyrrhotite through magnetic separation. Upgrading concentrates results in an even more favorable product for market as well a reduction in the amount of material requiring transportation.



Toronto, Ontario – March 1, 2023 – Goliath Resources Limited (TSX-V: GOT) (OTCQB: GOTRF) (FSE: B4IF) (the "Company" or "Goliath") is pleased to announce that recent metallurgical test work conducted on a composite sample comprised of mineralized core from its 2022 diamond drilling campaign has confirmed strong recoveries of gold and silver by means of gravity and flotation techniques; inclusive of 48.8% gold recovery from simple gravity. Importantly, this test work was performed on coarsely ground material, P80 327 μm, or 0.327 mm, suggesting that a relatively low input of energy is needed to grind rock to a size sufficient to achieve strong liberation and recovery.

### Methodology

Thirty-two quarter core samples from the Surebet Exploration Program were received at PMC Laboratory Ltd, Vancouver, for metallurgical testing. The test program objective was to assess the amenability of the combined core samples after crushing and grinding to coarse particle flotation by assessing metals recovery (gold, silver, lead and zinc), and concentrate mass pull for the proposed flowsheet consisting of grind/gravity/+150  $\mu$ m coarse particle flotation followed by regrind and cleaning flotation/-150  $\mu$ m bulk flotation.

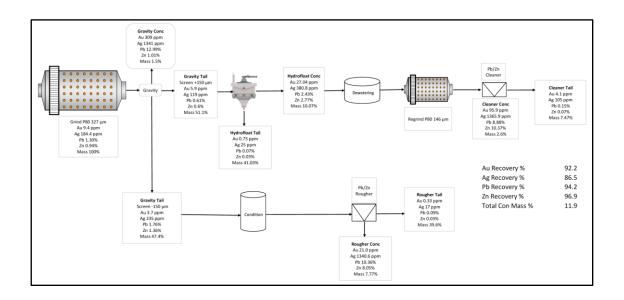
The principle concentrate minerals were galena, sphalerite and pyrrhotite. The principal gangue minerals were quartz, feldspars and muscovite/sericite/clays. The calculated grade of the composite sample was 9.42 g/t Au, 184.4 g/t Ag, 1.3% Pb and 0.94%Zn.

The test program consisted firstly of a grind calibration test and a mineralogical analysis of the grinds to understand mineral liberation. Once the liberation was understood gravity concentration testing was performed followed by flotation of the gravity tails, which were split into two streams, +150  $\mu$ m and -150  $\mu$ m for the application of coarse and fine particle flotation methods.

The mineralogical analysis determined that galena and sphalerite are well liberated even at the coarsest grind size, P80 of 331  $\mu$ m. The two-stage gravity concentration test recovered a cumulative 48.8% of the gold and 10.3% of the silver at a 1.47% yield. The combined gravity concentrate had a calculated grade of 309 g/t Au and 1,340.9 g/t silver. The final gravity tail had a P80 of 327  $\mu$ m and a grade of 4.84 g/t Au and 174.8 g/t Ag. Overall recoveries achieved from the circuit tested were 92.2% Au, 86.5% Ag, 94.2% Pb and 96.9% Zn. The combined mass pull of the final concentrates from gravity, bulk flotation and HydroFloat bulk cleaning was 11.9% and graded 73.2 g/t Au, 1,346 g/t Ag, 10.36% Pb and 7.69% Zn.

(Figure 1 below: Schematic flow sheet based on recent metallurgical test work performed by PMC Laboratory Ltd, Vancouver, British Columbia.)





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

Goliath Resources Limited is an explorer of precious metals in the prolific Golden Triangle of northwestern British Columbia and Abitibi Greenstone Belt of Quebec. All its projects are in world class geological settings and geopolitical safe jurisdictions amenable to mining in Canada. The new high-grade gold-silver Surebet discovery at its 100% controlled Golddigger Property located in the Golden Triangle, British Columbia is its flagship project.

# **Qualified Person**

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

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