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Golden Predator Announces Up to 96.8% Gold Recovery from Sulfide Concentrates Using Cyanide-Free Solution at Yukon Test Plant

Vancouver, BC, February 27 2020, Golden Predator Mining Corp. (TSX.V:GPY, OTCQX:NTGSF) (the “Company” or “Golden Predator”) reports continuing success in field testing of EnviroLeach Technologies Inc.’s (“EnviroLeach”) (CSE: ETI) (OTCQB: EVLLF) (7N2: FSE) non-cyanide environmentally-friendly solution in Golden Predator’s Secondary Recovery Unit (SRU) at its Yukon test processing plant (“Plant”). Eleven test batches totaling approximately 2 tonnes of the previously announced 5 tonne test sample resulted in 93.17% recovery of contained gold yielding 132.23 ounces of gold doré. Recoveries improved as the tests advanced with the final five test batches yielding 96.8% recovery of gold. These highly gratifying results confirm that processing and recovering environmentally friendly gold from high grade sulfide concentrate can be achieved with greater efficiency than cyanide, with far less environmental risk and far fewer regulatory requirements.

Janet Lee-Sheriff said: “The test processing plant operation and the SRU are examples of Golden Predator’s commitment to innovation aligned to environmental and social responsibility (ESG). The results clearly show that our cyanide-free alternative represents a commercial opportunity for many projects and jurisdictions. When we received the successful results, we altered our course of work at the plant to focus greater time and energy on this new technology. We are now assessing some potential commercial applications for this innovative development and we expect to provide more information on these opportunities in the near future.”

Results

A total of 2.034 tonnes, of the planned 5 tonne test sample of sulfide concentrate were processed in the Company’s SRU during 2019 using EnviroLeach’s water-based gold recovery solution, yielding 4.113 kg of 0.8994 gold and 0.0802 silver. The cumulative testing resulted in a total calculated recovery of 93.17% of the gold contained in the concentrate. The concentrate averaged 2,022 g/t gold. These results are from the testing of the concentrate sample program previously announced on November 12, 2019.

The cumulative total of 11 separate tests under varying conditions includes the previously reported 121 kg which yielded 255 g of gold (GPY NR November 12, 2019). Each of the individual tests had varied test

conditions such as the pH of both gold dissolution and electrowinning solutions, duration of dissolution, duration of electrowinning, and trace metal content of solutions. These tests progressed with the final five tests showing an average recovery of 96.8% of the contained gold. Progressive studies show increasing recoveries reflect ongoing optimization of not only the processing circuit but also the operating parameters of the SRU and its chemistry. These design and operational developments are being incorporated into improvements of the circuit for resumption of testing in 2020.

Background

Golden Predator operates the processing plant to better understand the metallurgy of the varying types of mineralized rock at 3 Aces and to establish better and environmentally friendly ways to process the mineralized rock. As part of its processing plant, Golden Predator developed a mobile batch recovery unit ("Secondary Recovery Unit" or "SRU™") for the recovery of gold from its sulfide concentrate. Golden Predator is utilizing EnviroLeach's proprietary environmentally friendly cyanide-free solution in the SRU™. The Plant has now demonstrated the ability to recover both coarse-grained gold from a closed system gravity circuit and to extract gold from a sulfide concentrate in an environmentally conscious and efficient manner.

Plant Update

The plant continued to operate as designed throughout 2019. Unplanned disruptions to supply of coarse material due to the spring thaw and an interruption of the contract crushing service for approximately six weeks contributed to a lower processing volume than anticipated. Shortfalls in anticipated gold recovery also occurred due to dilution of mineralized material and grade from internal modeling. Minor amounts of gold in the fractured wall rock is erratically distributed such that it skews modelling and results in over-estimation of the mineral content of the rock.

The test processing has established that the quartz vein material contains sufficient gold to merit processing while the wall rock material remains uneconomic. Going forward, this provides important information about the 3 Aces project and future exploration modelling. Future bulk sampling will concentrate on ore sorting with only the white gold containing quartz material being modelled and shipped for bulk sample processing. Results of work to date indicate that this data should increase not only the grade of the processed material but also provide greater certainty as to mineral content and ultimate recovery. During the second half of 2019, the Company acquired and installed its own crushing plant at a cost of \$25,000.00, consisting of a mobile 22" by 36" jaw crusher and generator set.

The addition of the SRU and batch testing of cyanide-free alternative solutions increasingly occupied a greater percentage of staff and management time and focus. The Company anticipates resumption of bulk sample material processing during the second quarter of 2020 in addition to the SRU test resumption and is pursuing commercial opportunities from the SRU test developments.

About the EnviroLeach Process

The EnviroLeach process delivers numerous economic and environmental benefits over current extractive technologies. The solution can effectively dissolve gold into aqueous solution with similar leach kinetics

and economics to that of cyanide but is sustainable, safe and environmentally friendly. This water-based process has a broad applicability spectrum and is effective on most gold ores and concentrates. It can potentially unlock the value of many deposits located in environmentally sensitive areas that cannot be developed using current extraction methods.

About the Golden Predator Process

Golden Predator's test processing plant, the first of its kind in Yukon, Canada, commenced operations in 2016 providing increased metallurgical and geological understanding of its 3 Aces Project. The Plant is a relatively simple gravity circuit utilizing a closed-circuit water system with no added chemicals due to the free-milling nature of 3 Aces' gold. The 50 tonnes per day closed circuit plant recovers gold from #1 concentrates with doré bars sent to a commercial refinery for final processing. Golden Predator is currently testing EnviroLeach's patent pending environmentally-friendly cyanide-free solution in its SRU for the extraction of gold from its #2 concentrates. Total gold recovery from the gravity circuit is over 85% of contained gold.

The 3 Aces Project is an orogenic gold project in southeast Yukon which has provided the testing material for the processing plant. To date, Golden Predator has focused exploration on a broad gold-in-soil anomaly, where numerous orogenic gold-bearing quartz veins have been discovered. Golden Predator made an early decision to conduct a bulk sample at the 3 Aces Project when it realized much of the gold contained in its veins is high grade (commonly over 30 g/t gold) and nuggety. The best way to determine the true gold value and distribution of gold within a nuggety gold system is to conduct large scale bulk sampling, which also allows Golden Predator the opportunity to conduct bulk metallurgical and processing tests in the Yukon.

QA/QC Statement

The initial laboratory, pilot scale and production scale testing were successfully conducted at EnviroLeach's facility in Surrey, British Columbia prior to the on-site testing at Golden Predator's Plant. All tests were conducted under the supervision of EnviroLeach and/or Golden Predator personnel.

The technical content of this news release has been reviewed and approved by Jeff Cary, CPG, a Qualified Person as defined by National Instrument 43-101 and an employee of the Company.

Golden Predator Mining Corp.

Golden Predator is advancing the past-producing Brewery Creek Mine towards a timely resumption of mining activities, under its Quartz Mining and Water Licenses, in Canada's Yukon. With established resources grading over 1.0 g/t Gold and a feasibility level study currently underway by Kappes Cassiday considering the economics of a restart of heap leach operations at the Brewery Creek Mine, 2020 proves to be a pivotal year for the Company.

Drilling continues to expand the open-ended resources and untested targets across the 180 km² brownfield property located 55 km by road from Dawson City, Yukon. Separately, the Yukon-based Company-owned gravity processing plant located in southeast Yukon has demonstrated gold recoveries of over 85% from high grade 3 Aces material using a combination of a gravity and water process and a mobile batch cyanide-free process. This 'green' gold provides the content for the mintage of .9999 gold coins from the Yukon Mint™, a wholly owned subsidiary of Golden Predator.

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