

NEWS RELEASE

(All dollar amounts expressed in US dollars unless otherwise noted)

Great Panther Announces Updated Mineral Reserve and Mineral Resource Estimates and Provides Exploration Update at Tucano

Vancouver – December 15, 2020 – Great Panther Mining Limited (TSX: GPR; NYSE-A: GPL) (“Great Panther” or the “Company”) has completed updated Mineral Reserve and Mineral Resource (MRMR) estimates for its 100% owned Tucano mine in Brazil. This updated MRMR has an effective date of September 30, 2020.

Highlights

- Proven and Probable (P&P) Mineral Reserves are now estimated to be 629K gold ounces, of which 299K ounces are open pit reserves. This represents a replacement of depleted reserves since the previous MRMR estimate.
- Measured and Indicated (M&I) Mineral Resources, which are inclusive of Reserves, now total 953K gold ounces. In the Tucano open pit, M&I Resources are 561K gold ounces, an increase of 28% since September 2019.
- Inferred Resources now total 534K gold ounces.
- This MRMR reflects results of near-mine drilling up to the end of July 2020 focused on the TAP AB pits which represents approximately two kilometres of the seven-kilometre mining trend. Drilling of near-mine targets continued at TAP AB and Urucum in the second half of the year. Exploration drilling will continue on these targets and the area between TAP AB and Urucum in 2021.
- Three diamond drills and a one reverse circulation (RC) rig are working on near-mine resource definition/conversion. Ongoing rotary air blast (RAB) drilling is also targeting regional potential with the current focus being Mutum and Saraminda, two of seven regional priority targets.

Great Panther President and CEO Rob Henderson commented: “We have successfully replaced 2020 mining depletion and added another year to the mine life at Tucano. The updated MRMR estimate provides us with a higher level of confidence for future mine and operational planning and we are confident that, in parallel, we can unlock the larger potential of the region.

“Going forward we will be aggressively advancing opportunities for resource growth and mine life extension on multiple fronts,” added Mr. Henderson. “We are actively drilling, both near the mine and in the extensive and largely under-explored regional land package.”

This MRMR update uses the same rigorous approach to Mineral Resource and Mineral Reserve estimation adopted in 2019 (refer to the NI 43-101 Technical Report on the Tucano Gold Mine completed by Roscoe Postle Associates Inc. (RPA) dated March 25, 2020). The key difference between the 2019 and this 2020 MRMR is that the Mineral Resource models for the Urucum and TAP AB deposits, which are the focus of production in 2021, were estimated using wireframes constructed using 0.3 grams per tonne (g/t) gold cut-off for the oxide zone and 0.4 g/t gold cut-off for the sulphide zone, compared to a single cut-off of



0.5 g/t gold used in 2019. The new wireframes were produced to improve the understanding of the geologic model and provide a more accurate picture of resource continuity for block modelling.

Table 1 – Tucano Mineral Reserve Estimates as of September 30, 2020

Location/area	Proven			Probable			Total Proven and Probable		
	Tonnes (000s)	Gold grade (g/t)	Contained gold (000s oz)	Tonnes (000s)	Gold grade (g/t)	Contained gold (000s oz)	Tonnes (000s)	Gold grade (g/t)	Contained gold (000s oz)
Open pit	1,688	1.61	87	3,880	1.70	212	5,568	1.67	299
Underground	189	3.78	23	1,976	4.17	265	2,164	4.13	288
Stockpile	2,026	0.64	42	0	0.00	0	2,026	0.64	42
Total	3,903	1.21	152	5,856	2.53	477	9,758	2.00	629

Notes:

1. Mineral Reserves were classified using the Canadian Institute of Mining, Metallurgy, and Petroleum Definition Standards for Mineral Resources and Mineral Reserves 2014 (CIM Definition Standards).
2. Mineral Reserve estimation includes mine depletion through to September 30, 2020 and drills results through to July 31, 2020. The effective date of the Mineral Reserve estimate is September 30, 2020.
3. Open pit Mineral Reserves are estimated within designed pits above discard cut-off grades that vary from 0.43 g/t Au to 0.5 g/t Au for oxide ore and 0.58 g/t Au to 0.63 g/t Au for fresh ore. The cut-off grades are based on a gold price of US\$1,500/oz Au and operating costs sourced from the current operations and mining contracts at an US\$/Brazilian exchange rate of 1:4.5.
4. Mineral Reserves incorporate estimates of dilution and mineral losses.
5. Underground Mineral Reserves were estimated using an incremental cut-off grade of 2.4 g/t Au. The cut-off grades are based on a gold price of US\$1,250/oz Au and operating costs sourced from the operations and mining contracts at an US\$/Brazilian exchange rate of 1:3.8.
6. A minimum mining width of 20 metres was used for open pit Mineral Reserves and three metres was used for underground Mineral Reserves.
7. The Mineral Reserve estimate includes surface stockpiles.
8. Average metallurgical process recovery is 91.5%.
9. Numbers may not add due to rounding.

Table 2 – Tucano Mineral Resource Estimates as of September 30, 2020

	Measured			Indicated			Total Measured and Indicated		
	Tonnes (000s)	Gold grade (g/t)	Contained gold (000s oz)	Tonnes (000s)	Gold grade (g/t)	Gold (000s oz)	Tonnes (000s)	Gold grade (g/t)	Gold (000s oz)
Open pit	2,309	1.46	108	8,793	1.60	453	11,102	1.57	561
Underground	0	0	0	2,649	4.11	350	2,649	4.11	350
Stockpile	2,491	0.53	42	0	0	0	2,491	0.53	42
Total	4,800	0.97	150	11,442	2.18	803	16,242	1.83	953

	Inferred		
	Tonnes (000s)	Gold grade (g/t)	Contained gold (000s oz)
Open pit	647	2.48	52
Underground	5,350	2.80	483
Stockpile	0	0	0
Total	5,997	2.77	534



Notes:

1. Mineral Resources were classified using CIM Definition Standards.
2. Mineral Resources are inclusive of Mineral Reserves.
3. The effective date of the Mineral Resource estimate is September 30, 2020.
4. Mineral Resources are estimated at various cut-off grades depending on mining method and mineralization style.
5. For open pit development at Urucum, Urucum East and TAP AB, Mineral Resource estimates use a long-term gold price of US\$1,750/oz and a US\$/Brazilian real exchange rate of 1:4.5 with cutoff grades of 0.3 g/t Au for oxide and 0.4 g/t Au for fresh rock.
6. Underground Mineral Resource estimates for TAP AB use a long-term gold price of US\$1,750/oz and a US\$/Brazilian real exchange rate of 1:4.5, with cutoff grade of 1.3g/t Au for fresh rock.
7. Since September 30, 2019, no additional drilling data is available for the Urucum underground and Duckhead so Mineral Resource estimates for 2020 remain unchanged from 2019. Estimates use a long-term gold price of US\$1,500/oz and a US\$/Brazilian real exchange rate of 1:3.8 with cutoff grades of 0.4 g/t Au for oxide and 0.55 g/t Au for fresh rock in the open pit and 2.1 g/t Au for oxide and 1.6 g/t Au for fresh for the underground.
8. A minimum mining width of three metres was used for preparation of mineralization wireframes.
9. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
10. Inferred Mineral Resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It cannot be assumed that all or part of the Inferred Mineral Resources will ever be upgraded to a higher category.
11. Numbers may not add due to rounding.

Between September 30, 2019 and July 30, 2020, there was no new drilling data for Duckhead or for the underground resource at Urucum, therefore Mineral Resource estimates for these areas have not been updated. At TAP AB, higher grades near the base of the current open pit (refer to Great Panther's news release dated June 23, 2020) allowed the pit to be significantly deepened, converting a large part of the underground resource stated in 2019 to open pit Mineral Resources at a gold price of \$1,750/oz. At Urucum, the deeper pits did not impact Mineral Reserves, however marginally reduced underground Mineral Resources immediately below Urucum North pit, but this change is not considered material. In 2021, GPM has budgeted a first phase, +8,000 metre diamond drilling program on the Urucum underground deposit to provide additional data for an MRMR update in 2021. Mineral Resource modelling and estimation at TAP AB was conducted by RPA, now part of SLR Consulting Ltd. Other Mineral Resources estimates and all Mineral Reserve estimates were completed by Great Panther's Technical Services group at Tucano.

A technical report will be filed on SEDAR at www.sedar.com, on EDGAR at www.sec.gov/EDGAR, and on the Company's website at www.greatpanther.com.

Exploration Update

In 2020, Great Panther launched a 55,000-metre drill program at Tucano for a budget of \$7 million. The program is under way and to date approximately 23,000 metres have been completed, and further expansion of the program is planned for 2021. The program has three priority focus areas:

Near-mine exploration

In the first half of 2020, Great Panther drilled 101 holes totaling 18,828 metres focused primarily on the TAP AB open pit. This drill program was designed to replace 2020 mining depletion by upgrading Mineral Resources for conversion to Mineral Reserves and led to a significant part of the MRMR open pit increase presented above. Similar programs are now underway at Urucum North and Urucum East. In 2021, further programs are anticipated at TAP C and Urso and other near-mine targets as justified by ongoing geologic modelling.



Underground exploration

In fourth quarter of 2020, Great Panther initiated drilling along strike and beneath the current Urucum North pit to evaluate access to shallow parts of the underground resource through extension of the open pit or underground development. To date, five RC and 12 diamond drill holes totaling 4,627 metres have been completed. Drilling in 2021 will focus on infill in deeper high-grade ore zones that form part of the potential development of an underground mine at Urucum. An important part of this program will be increasing the density of drill data to enhance a prefeasibility study to support the development of an underground mine.

Regional exploration

The Great Panther exploration tenement package covers approximately 90 kilometers (2,000 square kilometres) of the Vila Nova Greenstone Belt in which Great Panther has identified numerous targets based on a compilation of aerogeophysics and historical geochemical data. Shallow RAB drilling to date has focused on three known exploration targets: Lona Amarela, Mutum and Sarraminda. Drilling is ongoing at Saraminda while results of drilling from Lona Amarela and Saraminda identified extensive surficial gold geochemistry anomalies that require further detailing. A 1,000-metre diamond drilling program is under way at Mutum to test the target and provide geologic context to the southern anomaly. These targets are being prioritized and fast-tracked as they lie within a 20 kilometre radius of the Tucano plant and existing infrastructure.

QUALIFIED PERSONS

Great Panther's own technical qualified persons oversaw the process and carried out new estimates on the Urucum and Urucum East open pit deposits. SLR Consulting Ltd. (previously RPA) prepared and acted as independent technical qualified persons for the TAP AB deposit.

On behalf of Great Panther, Neil Hepworth, Chartered Engineer MIMMM supervised the preparation of and approved for inclusion in this news release, the Tucano Mineral Reserve estimates and Nicholas Winer, Fellow AusIMM and Carlos Pires, Chartered Professional, Member AusIMM (CP) supervised the preparation of and approved for inclusion in this news release, the Tucano Mineral Resource estimates (other than TAP AB open pit and underground Mineral Resource estimate). Messrs. Hepworth, Winer and Pires are non-independent Qualified Persons as defined by NI 43-101.

On behalf of SLR Consulting Ltd., Reno Pressacco, P. Geo., and Tudorel Ciuculescu P. Geo. supervised the preparation of and approved for inclusion in this news release, the TAP AB Mineral Resource estimate. Messrs. Pressacco and Ciuculescu are independent Qualified Persons as defined by National Instrument 43-101.

The Qualified Persons for Mineral Resource and Mineral Reserve estimation have reviewed the Tucano QA/QC program. The QA/QC program for drill core includes the regular insertion of blanks, standards, and duplicates into sample batches, diligent monitoring of assay results, and necessary remedial actions. Resource drilling samples are first assayed at the Tucano onsite laboratory. All intervals with anomalous gold are submitted and re-analyzed by the Certified, SGS Geosol laboratory in Belo Horizonte by 50 g fire-assay. All SGS Geosol assays, after diligent monitoring of QA/QC and necessary remedial actions, supersede the Tucano assay results in the database for MRMR grade estimation. QA/QC monitoring of the SGS laboratory also includes inter-laboratory checks on five percent of samples with the Certified, ALS laboratory in Belo Horizonte. In addition to the data verification methodology described above, personal inspections of the Tucano property have also been completed.



Unless stated otherwise, all scientific and technical information contained in this news release has been reviewed and approved by Neil Hepworth, Chartered Engineer MIMM, Chief Operating Officer, Fernando A. Cornejo, P. Eng., Vice-President, Operations, Brazil and Nicholas Winer, Vice-President, Exploration of Great Panther, each a Qualified Person as defined by NI 43-101.

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ABOUT GREAT PANTHER

Great Panther is a growing gold and silver producer focused on the Americas. The Company owns a diversified portfolio of assets in Brazil, Mexico and Peru that includes three operating gold and silver mines, four exploration projects, and an advanced development project. Great Panther is actively exploring large land packages in highly prospective districts and is pursuing acquisition opportunities to complement its existing portfolio. Great Panther trades on the Toronto Stock Exchange trading under the symbol GPR, and on the NYSE American under the symbol GPL.

CAUTIONARY NOTES ON FORWARD-LOOKING STATEMENTS

This news release contains forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 and forward-looking information within the meaning of Canadian securities laws (together, “forward-looking statements”). Such forward-looking statements may include, but are not limited to, statements regarding: the Tucano Mineral Reserve and Mineral Resource estimates and the assumptions underlying the estimates; the Company’s ability to advance successfully opportunities for resource growth and mine life extension in the future; the exploration potential of Tucano near-mine, underground and regional land package; the Company’s plans to complete and results of further drilling at Tucano; ability of the Company to enhance a prefeasibility study to support the development of an underground mine; and the Company’s plans to pursue acquisition opportunities to complement its existing portfolio.

These forward-looking statements and information reflect the Company's current views with respect to future events and are necessarily based upon a number of assumptions that, while considered reasonable by the Company, are inherently subject to significant operational, business, economic and regulatory uncertainties, and contingencies. These assumptions include: the accuracy of the Company’s mineral reserve and mineral resource estimates and the assumptions upon which they are based; ore grades and recoveries; gold prices remaining as estimated; national and international transportation arrangements to deliver Tucano’s gold doré to international refineries continue to remain available, despite inherent risks due to COVID-19; international refineries that the Company uses continue to operate and refine the Company’s gold doré, and in a timely manner such that the Company is able to realize revenue from the sale of its refined metal in the timeframe anticipated, despite inherent risks due to COVID-19; currency exchange rates remaining as estimated; capital, decommissioning and reclamation estimates; prices for energy inputs, labour, materials, supplies and services (including transportation); all necessary permits, licenses and regulatory approvals for the Company’s operations are received in a timely manner and maintained; continued operations at Tucano in accordance with the Company’s mine plan, including the expectations regarding the ongoing geotechnical control of Urucum Central South (“UCS”) where mining re-started in the last week of October; management’s estimates in connection with the assessment of provisions for loss and contingent liabilities relating to legal proceedings may differ materially from the ultimate loss or damages incurred



by the Company; assumption that the Company will be successful in resolving the legal claims that ban the use of cyanide in the Tucano processing; management's estimates regarding the carrying value of its mineral properties may be subject to change in future financial periods, which may result in further write-downs and consequential impairment loss; conditions in the financial markets; the ability to procure equipment and operating supplies and that there are no material unanticipated variations in the cost of energy or supplies; the accuracy of the geological, operational and price and exchange rate assumptions on which the cost assumptions are based; operations not being disrupted by issues such as pit-wall failures or instability, mechanical failures, labour disturbances and workforce shortages, illegal occupations or mining, seismic events, and adverse weather conditions; the Company's expectations that metallurgical, environmental, permitting, legal, title, taxation, socio-economic, political, marketing or other issues will not materially affect the estimates or mineral reserves and mineral resources or its future mining plans; and the Company's ability to comply with environmental, health and safety laws. The foregoing list of assumptions is not exhaustive.

These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements expressed or implied by such forward-looking statements to be materially different. Such factors include, among others, risks and uncertainties relating to: the impact of COVID-19 on the Company's ability to operate as anticipated, including the risk of an unplanned partial or full shutdown of the Company's mines and processing plants, whether voluntary or imposed, which would adversely impact the Company's revenues, financial condition and ability to meet its production and cost guidance; the inherent risk that estimates of mineral reserves and resources may not be accurate or that the assumptions upon which they are based are different than expected; the discontinuity of the ore body and mine selectivity may result in a risk that dilution and mining recovery estimates used in the Mineral Reserve estimation do not accurately reconcile with the Company's ability to recover the tonnage, grade and metal content estimated in the Mineral Reserves; gold, prices may decline or may be less than forecasted; fluctuations in currency exchange rates (including the U.S. dollar to Brazilian real exchange rate) may increase costs of operations; potential of further instability or failure of walls of the UCS pit, which compromises a material part of the Mineral Reserves being accessed in 2021; there is no assurance that the Company will be able to continue mining and be able to access the UCS Mineral Reserves which may adversely impact the Company's Mineral Reserve estimates, production plans and future revenues, including the potential risk that the Mineral Reserves at UCS may not be accessible at all or that access may be dependent on further remedial work that might interrupt operations; operational and physical risks inherent in mining operations (including pit wall collapses, tailings storage facility failures, environmental accidents and hazards, industrial accidents, equipment breakdown, unusual or unexpected geological or structural formations, cave-ins, flooding and severe weather) may result in unforeseen costs, shut downs, delays in production and exposure to liability; risk that the Company is not successful in its Brazilian litigation, including a risk that the use of cyanide would be banned in respect of Tucano's operations causing Tucano to have to cease operations if an alternative to cyanide treatment cannot be identified and implemented in a cost-effective way (of which there is no assurance); planned exploration activities may not result in conversion of existing Mineral Resources into Mineral Reserves or discovery of new Mineral Resources; potential political and social risks involving Great Panther's operations in a foreign jurisdiction; the potential for unexpected costs and expenses or overruns; employee and contractor relations; relationships with, and claims by, local communities; the Company's ability to obtain and maintain all necessary permits, licenses and regulatory approvals in a timely manner, which if not granted could result in an interruption to operations; changes in laws, regulations and government practices in the jurisdictions in which the Company operates; legal restrictions related to mining; diminishing quantities or grades of Mineral Reserves as properties are mined; operating or technical difficulties in mineral exploration; changes in project parameters as plans continue to be refined; the Company's inability to meet its production forecasts or to generate the anticipated cash flows from operations could result in the Company's inability to meet its scheduled debt payments when due or to meet financial covenants to which the Company is subject; ability to maintain and renew agreements with local communities to support continued operations; there is no assurance that the Company will be able to identify or complete acquisition opportunities; and other risks and uncertainties, including those described in respect of Great Panther, in its annual information form for the year ended December 31, 2019 and material change reports filed with the Canadian Securities Administrators available at www.sedar.com and reports on Form 40-F and Form 6-K filed with the Securities and Exchange Commission and available at www.sec.gov.



There is no assurance that these forward-looking statements will prove accurate or that actual results will not vary materially from these forward-looking statements. Although the Company has attempted to identify important factors that could cause actual results to differ materially, there may be other factors that cause results not to be as anticipated, estimated, described, or intended. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward-looking statements and information are designed to help readers understand management's current views of our near- and longer-term prospects and may not be appropriate for other purposes. The Company does not intend, nor does it assume any obligation to update or revise forward-looking statements or information, whether as a result of new information, changes in assumptions, future events or otherwise, except to the extent required by applicable law.

CAUTIONARY NOTE TO UNITED STATES INVESTORS CONCERNING ESTIMATES OF MEASURED, INDICATED AND INFERRED RESOURCES

The Company prepares its disclosure in accordance with the requirements of securities laws in effect in Canada, which differ from the requirements of U.S. securities laws. Terms relating to Mineral Resources in this news release are defined in accordance with NI 43-101 under the guidelines set out in the CIM Definition Standards.

The United States Securities and Exchange Commission (the "SEC") has adopted amendments effective February 25, 2019 (the "SEC Modernization Rules") to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the United States Securities Exchange Act of 1934. The SEC Modernization Rules have replaced SEC Industry Guide 7, which will be rescinded following a transition period and after the required compliance date of the SEC Modernization Rules.

As a result of the adoption of the SEC Modernization Rules, the SEC will now recognize estimates of "Measured Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources", which are defined in substantially similar terms to the corresponding CIM Definition Standards. In addition, the SEC has amended its definitions of "Proven Mineral Reserves" and "Probable Mineral Reserves" to be substantially similar to the corresponding CIM Definition Standards.

United States investors are cautioned that while the foregoing terms are "substantially similar" to corresponding definitions under the CIM Definition Standards, there are differences in the definitions under the SEC Modernization Rules and the CIM Definition Standards. Accordingly, there is no assurance any Mineral Resources that the Company may report as "Measured Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources" under NI 43-101 would be the same had the Company prepared the resource estimates under the standards adopted under the SEC Modernization Rules.

United States investors are also cautioned that while the SEC will now recognize "Measured Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources", investors should not assume that any part or all of the mineral deposits in these categories would ever be converted into a higher category of Mineral Resources or into Mineral Reserves. Mineralization described by these terms has a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. Accordingly, investors are cautioned not to assume that any "Measured Mineral Resources", "Indicated Mineral Resources", or "Inferred Mineral Resources" that the Company reports are or will be economically or legally mineable.

Further, "Inferred Resources" have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. Therefore, United States investors are also cautioned not to assume that all or any part of the Inferred Resources exist. In accordance with Canadian securities laws, estimates of "Inferred Mineral Resources" cannot form the basis of feasibility or other economic studies, except in limited circumstances where permitted under NI 43-101.

In addition, disclosure of "contained ounces" is permitted disclosure under Canadian regulations; however, the SEC has historically only permitted issuers to report mineralization as in place tonnage and grade without reference to unit measures.