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For Immediate Release

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NEWS RELEASE

GREAT PANTHER SILVER REPORTS FIRST QUARTER 2016 PRODUCTION RESULTS

GREAT PANTHER SILVER LIMITED (TSX: GPR; NYSE MKT: GPL) (“Great Panther”; the “Company”) announces production results for the first quarter (“Q1”) 2016 from its two wholly-owned Mexican silver mining operations: the Guanajuato Mine Complex (“GMC”), which includes the San Ignacio Mine, and the Topia Mine in Durango.

First Quarter 2016 Production Highlights (Compared to first quarter 2015)

- Consolidated metal production increased 2% to 1,009,828 silver equivalent ounces ("Ag eq oz")
- Silver production decreased 10% to 539,472 silver ounces ("Ag oz")
- Gold production increased 19%, with 5,599 gold ounces ("Au oz") produced
- Ore processed decreased 11% to 88,683 tonnes milled

“Great Panther’s first quarter production of 1.01 million silver equivalent ounces is in-line with our annual guidance, and reflects our plans for modest growth and further focus on operational efficiency in 2016 after achieving 30% growth last year”, stated Robert Archer, president & CEO. “The increase in gold production and decrease in silver production are a direct result of the rising production from San Ignacio, which has a higher gold to silver ratio, and pillar recoveries at the Guanajuato mines. Our team’s continued pursuit of greater efficiencies and better grade control is another important factor in the overall success for the quarter and is reflected in more ounces produced from less tonnes.”

Consolidated Operations Summary	Q1 2016	Q1 2015	Change	Q1 2016	Q4 2015	Change
Ore processed (tonnes milled)	88,683	99,252	-11%	88,683	94,874	-7%
Silver equivalent ounce production ^{1,2}	1,009,828	987,887	2%	1,009,828	1,002,584	1%
Silver ounce production	539,472	597,111	-10%	539,472	553,189	-2%
Gold ounce production	5,599	4,703	19%	5,599	5,637	-1%
Lead production (tonnes)	282	279	1%	282	278	1%
Zinc production (tonnes)	424	441	-4%	424	425	0%

⁽¹⁾ Silver equivalent ounces for 2016 were calculated using a 70:1 Ag:Au ratio, and ratios of 1:0.0504 and 1:0.0504 for the price/ounce of silver to price/pound of lead and zinc, respectively.

⁽²⁾ Silver equivalent ounces for 2015 were calculated using a 65:1 Ag:Au ratio, and ratios of 1:0.050 and 1:0.056 for the price/ounce of silver to price/pound of lead and zinc, respectively.

Guanajuato Mine Complex

In Q1 2016, metal production at the GMC was consistent with the previous quarter, but increased by 6%, to 755,555 Ag eq oz, when compared to the same quarter in the previous year. This was largely attributed to the 35% higher gold grades, as a result of the continued ramp-up in production from San Ignacio. The increase in grades more than offset the lower mill throughput. A theft of explosives that led to a temporary suspension of blasting activities in February was also responsible for the decrease in throughput. As we previously reported, the impact of the temporary stoppage of mining activities in Q1 is not expected to affect our previously issued 2016 production guidance.

GMC Operations Summary	Q1 2016	Q1 2015	Change	Q1 2016	Q4 2015	Change
Ore processed (tonnes milled)	73,649	82,026	-10%	73,649	79,651	-8%
Silver equivalent ounce production ^{1,2}	755,555	713,371	6%	755,555	751,927	0%
Silver ounce production	375,273	417,770	-10%	375,273	394,655	-5%
Gold ounce production	5,433	4,548	19%	5,433	5,496	-1%
Ag grade (g/t)	179	177	1%	179	175	2%
Au grade (g/t)	2.58	1.92	35%	2.58	2.39	8%
Ag recovery (%)	88.5%	89.7%	-1%	88.5%	87.9%	1%
Au recovery (%)	89.0%	89.9%	-1%	89.0%	89.7%	-1%

⁽¹⁾ Silver equivalent ounces for 2016 were calculated using a 70:1 Ag:Au ratio.

⁽²⁾ Silver equivalent ounces for 2015 were calculated using a 65:1 Ag:Au ratio.

The increase in gold grades in Q1 2016 was achieved through a combination of pillar recoveries at the Guanajuato mines and rising production from the South Extension zones at San Ignacio. Consequently, gold production increased by 19%, to 5,433 Au oz, compared to Q1 2015. San Ignacio accounted for 52% of the overall metal production and 63% of the total gold production at the GMC in Q1 2016 compared to 30% and 42%, respectively, in the first quarter of 2015.

Q1 2016 marked a period of continued development of the underground and surface facilities at San Ignacio to ensure sustained and efficient operations at the mine. Work included preparation of additional ore fronts, ramp improvements, ventilation modifications, maintenance shop expansion, and equipment upgrades. Additionally, the emphasis on exploration at all mines continued to yield favorable targets for confirmation drilling and potential resource expansion.

Topia Mine

Total ore processed and metal produced in the first quarter of 2016 at Topia were consistent with the previous quarter, but decreased 13% and 7%, respectively, when compared to Q1 2015. The decrease in mill throughput is attributed to a greater effort to control dilution, which successfully resulted in higher head grades for the quarter. Higher grades have a direct impact on lowering the cost per ounce of production.

Mine development at Topia centered on the Argentina Mine, particularly at the lower levels, where new ore zones were being prepared for longer term production starting in the second half

of 2016. The development at Argentina included the refurbishment of a lower level adit, enhancing the ventilation, and providing a secondary access for the new lower level ore zones from below.

Topia Operations Summary	Q1 2016	Q1 2015	Change	Q1 2016	Q4 2015	Change
Ore processed (tonnes milled)	15,034	17,225	-13%	15,034	15,223	-1%
Silver equivalent ounce production ^{1, 2}	254,273	274,515	-7%	254,273	250,657	1%
Silver ounce production	164,199	179,341	-8%	164,199	158,534	4%
Gold ounce production	167	155	8%	167	140	19%
Lead production (tonnes)	282	279	1%	282	278	1%
Zinc production (tonnes)	424	441	-4%	424	425	0%
Ag grade (g/t)	373	357	5%	373	357	4%
Au grade (g/t)	0.55	0.44	25%	0.55	0.48	15%
Ag recovery (%)	91.0%	90.8%	0%	91.0%	90.6%	0%
Au recovery (%)	62.9%	63.5%	-1%	62.9%	60.4%	4%

⁽¹⁾ Silver equivalent ounces for 2016 were calculated using a 70:1 Ag:Au ratio, and ratios of 1:0.0504 and 1:0.0504 for the price/ounce of silver to price/pound of lead and zinc, respectively.

⁽²⁾ Silver equivalent ounces for 2015 were calculated using a 65:1 Ag:Au ratio, and ratios of 1:0.050 and 1:0.056 for the price/ounce of silver to price/pound of lead and zinc, respectively.

OUTLOOK

Production in the first quarter of 2016 was consistent with the annual guidance of 4.0 - 4.2 million Ag eq oz (using a 70:1 silver:gold ratio). This rate of production is anticipated to continue for the balance of the year.

With much of the underground development work at San Ignacio now complete, production from this mine is expected to gradually increase through the balance of 2016, with a corresponding decrease from the main Guanajuato mines. This should result in higher gold production relative to silver.

As the Company continues its evaluation of the Coricancha Mine in Peru, other acquisition opportunities are being reviewed on a regular basis.

The technical information contained in this news release has been reviewed and approved by Robert F. Brown, P. Eng. and Vice President of Exploration for the Company, who is the Qualified Person (QP) for the Guanajuato Mine Complex and the Topia Mine under the meaning of NI 43-101. Aspects relating to mining and metallurgy are overseen by Ali Soltani, Chief Operating Officer for Great Panther.

ABOUT GREAT PANTHER

Great Panther Silver Limited is a primary silver mining and exploration company listed on the Toronto Stock Exchange trading under the symbol GPR, and on the NYSE MKT trading under the symbol GPL. Great Panther's current activities are focused on the mining of precious metals from its two wholly-owned mining operations in Mexico: the Guanajuato Mine Complex, which includes the San Ignacio Mine, and the Topia Mine in Durango. The Company holds an

option agreement to acquire a 100% interest in the Coricancha Mine Complex in the central Andes of Peru, where an active exploration program is ongoing.

Robert Archer
President & CEO

CAUTIONARY STATEMENT 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 the Company's plans for production at its Guanajuato Mine Complex and Topia Mine in Mexico, exploring its other properties in Mexico and Peru, the overall economic potential of its properties, the availability of adequate financing, and involve known and unknown risks, uncertainties and other factors which 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 potential political risks involving the Company's operations in a foreign jurisdiction, uncertainty of production and cost estimates and the potential for unexpected costs and expenses, uncertainty in mineral resource estimation, physical risks inherent in mining operations, currency fluctuations, fluctuations in the price of silver, gold and base metals, completion of economic evaluations, changes in project parameters as plans continue to be refined, permitting risks, the inability or failure to obtain adequate financing on a timely basis, and other risks and uncertainties, including those described in the Company's Annual Information Form for the year ended December 31, 2015 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.

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