# Pan American Silver Reports Mineral Reserves of 557 Million Ounces of Silver and 5.1 Million Ounces of Gold

All financial figures are expressed in US\$ unless otherwise indicated.

VANCOUVER, Sept. 4, 2019 /CNW/ - **Pan American Silver Corp.** (NASDAQ: PAAS) (TSX: PAAS) ("Pan American", or the "Company") today reported that, as of June 30, 2019, its proven and probable mineral reserves are estimated to contain approximately 557 million ounces of silver and 5.1 million ounces of gold. Measured and indicated mineral resources (excluding proven and probable reserves), as of June 30, 2019, are estimated to total approximately 797 million ounces of silver and 10.6 million ounces of gold. These figures include mineral reserves and resources from the assets acquired with the Tahoe Resources Inc. ("Tahoe") transaction completed on February 22, 2019.

"Our silver reserves doubled while gold reserves tripled from reserves reported at December 31, 2018, primarily due to the additional reserves acquired from Tahoe. We now hold one of the largest silver reserves and resources in the mining industry along with substantial gold reserves," said Christopher Emerson, Pan American's Vice President of Business Development and Geology. "During the first six months of 2019, we completed 40% of the annual drilling planned for our mine sites. We are accelerating our exploration drilling in the second half the year, and plan to complete 130,000 metres of drilling".

As of June 30, 2019, inferred resources totaled approximately 303 million ounces of silver and 9.6 million ounces of gold. The majority of the increase in inferred gold resources from our December 31, 2018 update came from the acquired Tahoe assets, a significant portion of which are attributable to the Timmins exploration portfolio, which include the Juby and Fenn Gib projects.

The mineral reserve and mineral resource estimates as of June 30, 2019 do not include the polymetallic skarn discovery at the La Colorada mine. We are currently drilling with seven machines at La Colorada, and expect to release an initial resource estimate relating to the skarn at the end of 2019.

Beginning with this update, Pan American intends to report mineral reserves and mineral resources updates as of June 30 of each year, rather than as of December 31, in order to align mineral reserve and mineral resource updates with our annual mine plans and budgets.

A summary of the silver and gold mineral reserves and mineral resources as of June 30, 2019 is provided in the following tables. Complete mineral reserve and resource information for all metals, including tonnage and grades, is available at <a href="https://www.panamericansilver.com">www.panamericansilver.com</a>.

### Pan American Silver Corporation Mineral Reserves as of June 30, 2019 (1,2)

Property	Location	Classification	Tonnes (Mt)	Ag (g/t)	Contained Ag (Moz)	Au (g/t)	Contained Au (koz)
Silver Segment							
Huaron	Peru	Proven	6.2	168	33.5		
		Probable	3.7	170	20.1		
Morococha (92.3%) <sup>(3)</sup>	Peru	Proven	4.1	147	19.5		
		Probable	2.2	173	12.3		
La Colorada	Mexico	Proven	4.0	395	50.8	0.33	42.0
		Probable	5.4	287	49.6	0.26	44.4
Dolores	Mexico	Proven	35.9	26	29.8	0.84	967.4
		Probable	7.8	28	6.9	0.84	210.7
Manantial							

Espejo	Argentina	Proven	0.8	170	4.6	1.35	36.2
		Probable	0.1	204	0.9	3.64	16.0
San Vicente (95%) <sup>(3)</sup>	Bolivia	Proven	1.4	414	18.6		
		Probable	0.5	345	6.0		
Joaquin	Argentina	Probable	0.5	721	11.0	0.41	6.2
COSE	Argentina	Probable	0.1	918	2.2	17.7	43.3
Escobal	Guatemala	Proven	2.5	486	39.5	0.42	34.2
		Probable	22.1	316	225.0	0.34	243.8
Total Silver Segment <sup>(4)</sup>			97.5	169	530.4	0.64	1,644.1
Gold Segment							
La Arena	Peru	Proven	27.4			0.36	319.4
		Probable	9.5			0.30	90.9
Shahuindo	Peru	Proven	69.8	6	14.4	0.51	1,133.2
		Probable	42.8	6	7.8	0.46	629.9
Timmins	Canada	Proven	2.7			3.06	269.1
		Probable	7.2			3.10	718.6
La Bolsa	Mexico	Proven	9.5	10	3.1	0.67	202.9
		Probable	6.2	7	1.4	0.57	113.1
Total Gold Segment <sup>(4)</sup>			175.0	6	26.8	0.62	3,476.9
Total Gold and Silver Segments <sup>(4)</sup>		Proven + Probable	272.5	77	557.2	0.63	5,121.1

- (1) See table below entitled "Metal price assumptions used to estimate mineral reserves and mineral resources as of June 30, 2019".
- (2) Mineral reserve estimates were prepared under the supervision of, or were reviewed by, Christopher Emerson, FAusIMM, Vice President Business Development and Geology and Martin G. Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, each of whom are Qualified Persons as that term is defined in NI 43-101.
- (3) This information represents the portion of mineral reserves attributable to Pan American based on its ownership interest in the operating entity as indicated.
- (4) Totals may not add up due to rounding. Total average grades of each element are with respect to those mines that produce the element.

# Pan American Silver Corporation Measured and Indicated Mineral Resources as of June 30, 2019 $_{(1,2)}$

Property	Location	Classification	Tonnes (Mt)	Ag (g/t)	Contained Ag (Moz)	Au (g/t)	Contained Au (koz)
Silver Segment							
Huaron	Peru	Measured	2.2	157	11.0		
		Indicated	2.4	155	12.0		

Morococha (92.3%) <sup>(3)</sup>	Peru	Measured	0.3	138	1.2		
		Indicated	0.3	143	1.6		
La Colorada	Mexico	Measured	0.5	229	3.8	0.24	4.0
		Indicated	1.6	185	9.6	0.15	7.8
Dolores	Mexico	Measured	2.0	21	1.3	0.35	22.0
		Indicated	1.5	28	1.4	0.56	27.1
Manantial							
Espejo	Argentina	Measured	0.1	164	0.7	1.65	7.1
		Indicated	0.2	241	1.4	2.86	16.5
San Vicente							
(95%) <sup>(3)</sup>	Bolivia	Measured	0.9	161	4.4		
		Indicated	0.3	158	1.4		
Navidad	Argentina	Measured	15.4	137	67.8		
	1	Indicated	139.8	126	564.5		
Joaquin 	Argentina	Indicated	0.1	385	0.7	0.58	1.1
Escobal	Guatemala	Measured	2.3	251	18.6	0.23	16.7
		Indicated	14.2	201	91.6	0.20	93.0
Total Silver Segment <sup>(4)</sup>			184.0	134	792.9	0.27	195.3
Gold Segment							
La Bolsa	Mexico	Measured	1.4	11	0.5	0.90	39.9
		Indicated	4.5	9	1.3	0.50	71.2
Pico Machay	Peru	Measured	4.7			0.91	137.5
		Indicated	5.9			0.67	127.1
La Arena	Peru	Measured	1.3			0.41	17.5
		Indicated	1.7			0.38	20.6
Shahuindo	Peru	Measured	3.7	7	0.8	0.53	63.2
		Indicated	8.4	5	1.5	0.46	123.6
Timmins	Canada	Measured	1.7			3.89	212.4
		Indicated	5.4			3.41	587.8
La Arena II	Peru	Measured	155.7			0.25	1,265.2
		Indicated	586.7			0.23	4,371.9
Fenn-Gib	Canada	Indicated	40.8			0.99	1,298.6
Whitney	Canada	Measured	1.0			7.02	218.1
		Indicated	2.3			6.77	490.5
Gold River	Canada	Indicated	0.7			5.29	117.4
Juby	Canada	Indicated	26.6			1.28	1,094.7
Marlhill	Canada	Indicated	0.4			4.52	57.4
	Canada	Indicated	2.2			1.75	125.0
Vogel							

- (4)		954.0	_ 7	4.1	0.20	10 420 6
Segment(4) Total Gold		034.9		4.1	0.30	10,439.0
and Silver	Measured +					
Segments <sup>(4)</sup>		1 020 0	122	707.0	0.20	10 624 0
Segments	Indicated	1,038.8	123	797.0	0.38	10,634.9

- (1) See table below entitled "Metal price assumptions used to estimate mineral reserves and mineral resources as of June 30, 2019".
- (2) Mineral resource estimates were prepared under the supervision of, or were reviewed by, Christopher Emerson, FAusIMM, Vice President Business Development and Geology and Martin G. Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, each of whom are Qualified Persons as that term is defined in NI 43-101.
- (3) This information represents the portion of mineral resources attributable to Pan American based on its ownership interest in the operating entity as indicated.
- (4) Totals may not add up due to rounding. Total average grades of each element are with respect to those mines that produce the element.

### Pan American Silver Corporation Inferred Mineral Resources as of June 30, 2019 (1,2)

Property	Location	Classification	Tonnes (Mt)	Ag (g/t)	Contained Ag (Moz)	Au (g/t)	Contained Au (koz)
Silver Segment							
Huaron	Peru	Inferred	6.2	155	30.8		
Morococha (92.3%) <sup>(3)</sup>	Peru	Inferred	4.5	138	19.9		
La Colorada	Mexico	Inferred	8.1	133	34.5	0.12	31.6
Dolores	Mexico	Inferred	4.0	47	6.0	1.22	156.3
Manantial Espejo	Argentina	Inferred	0.5	194	3.0	2.71	41.4
San Vicente (95%) <sup>(3)</sup>	Bolivia	Inferred	3.0	289	27.9		
Navidad	Argentina	Inferred	45.9	81	119.4		
Joaquin	Argentina	Inferred	0.01	389	0.1	1.29	0.2
COSE	Argentina	Inferred	0.03	382	0.3	7.10	6.3
Escobal	Guatemala	Inferred	1.9	180	10.7	0.90	53.7
Total Silver Segment <sup>(4)</sup>			74.0	106	252.5	0.62	289.5
Gold Segment							
La Bolsa	Mexico	Inferred	13.7	8	3.3	0.51	224.6
Pico Machay	Peru	Inferred	23.9			0.58	445.7
La Arena	Peru	Inferred	1.1			0.30	10.7
Shahuindo	Peru	Inferred	10.0	5	1.6	0.44	140.6
Shahuindo Sulphide	Peru	Inferred	97.4	14	45.1	0.74	2,323.3
Timmins	Canada	Inferred	3.7			3.74	443.8
La Arena II	Canada	Inferred	91.6			0.23	683.1
Fenn-Gib	Canada	Inferred	24.5			0.95	750.0

Total Gold and Silver Segments <sup>(4)</sup>		Inferred	443.8	48	302.5	0.78	9,587.1
Total Gold Segment <sup>(4)</sup>			369.8	13	50.0	0.78	9,297.6
Vogel	Canada	Inferred	1.5			3.60	168.8
Juby	Canada	Inferred	96.2			0.94	2,908.8
Gold River	Canada	Inferred	5.3			6.06	1,027.4
Whitney	Canada	Inferred	1.0			5.34	170.7

- (1) See table below entitled "Metal price assumptions used to estimate mineral reserves and mineral resources as of June 30, 2019".
- (2) Mineral resource estimates were prepared under the supervision of, or were reviewed by, Christopher Emerson, FAusIMM, Vice President Business Development and Geology and Martin G. Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, each of whom are Qualified Persons as that term is defined in NI 43-101.
- (3) This information represents the portion of mineral resources attributable to Pan American based on its ownership interest in the operating entity as indicated.
- (4) Totals may not add up due to rounding. Total average grades of each element are with respect to those mines that produce the element.

## Metal price assumptions used to estimate mineral reserves and mineral resources as of June 30, 2019

Mine	Category	Ag US\$/oz	Au US\$/oz	Cu US\$/t	Pb US\$/t	Zn US\$/t
Huaron	All categories	17.00	1,300	6,000	2,100	2,500
Morococha	All categories	17.00	1,300	6,000	2,100	2,500
La Colorada	All categories	17.00	1,300	6,000	2,100	2,500
Dolores	Reserves	17.00	1,300			
Dolores	Resources	22.00	1,400			
La Bolsa	All categories	14.00	825			
Manantial Espejo	All categories	16.00	1,300			
San Vicente	All categories	17.00	1,300	6,000	2,100	2,500
Navidad	All categories	12.52			1,100	
Pico Machay	All categories		700			
Joaquin	All categories	16.00	1,300			
COSE	All categories	16.00	1,300			
Escobal	All categories	20.00	1,300		2,204	2,424
Shahuindo	Reserves	17.00	1,300			
Silanumuo	Resources	22.00	1,400			
Shahuindo Sulphide	Inferred Resource	15.00	1,400			
La Arona	Reserves	17.00	1,400			
La Arena	Resources	22.00	1,500			
La Arena II	All categories		1,500	8,816		

Timmins - Bell Creek	All categories	1,300		
Fonn Cib	Inside pit	1,190		
Fenn-Gib	Below pit	1,190		
Whitney	All categories	1,200		
Gold River	All categories	1,200		
Juby <sup>(1)</sup>	All categories			
Marlhill	All categories	1,125		
Vogel	Inside pit	1,150		
Vogei	Below pit	1,150		

<sup>(1)</sup> Estimation used a cut off grade of 0.40% g/t

#### **General Notes with Respect to Technical Information**

Mineral reserves and resources are as defined by the Canadian Institute of Mining, Metallurgy and Petroleum.

Pan American reports mineral resources and mineral reserves separately. Reported mineral resources do not include amounts identified as mineral reserves. Mineral resources that are not mineral reserves have no demonstrated economic viability.

Pan American does not expect these mineral reserve and mineral resource estimates to be materially affected by metallurgical, environmental, permitting, legal, taxation, socio-economic, political, and marketing or other relevant issues.

See the Company's Annual Information Form dated March 12, 2019, available at <a href="www.sedar.com">www.sedar.com</a> for further information on the Company's pre-Tahoe acquisition material mineral properties, including information concerning associated QA/QC and data verification matters, the key assumptions, parameters and methods used by the Company to estimate mineral reserves and mineral resources, and for a detailed description of known legal, political, environmental, and other risks that could materially affect the Company's business and the potential development of the Company's mineral reserves and resources.

For further information on the material mineral properties acquired from Tahoe, please refer to the Company's management information circular dated December 4, 2018, including additional information contained in Tahoe's disclosure incorporated by reference therein, available at <a href="https://www.sedar.com">www.sedar.com</a>.

Complete mineral reserve and resource information for all metals, including tonnage and grades, is available at <a href="https://www.panamericansilver.com">www.panamericansilver.com</a>. Quantities of contained metal are shown before metallurgical recoveries.

Technical information contained in this news release with respect to Pan American has been reviewed and approved by Christopher Emerson, FAusIMM., Vice President Business Development and Geology, and Martin Wafforn, P.Eng., Senior Vice President Technical Services and Process Optimization, who are each Qualified Persons for the purposes of National Instrument 43-101.

### About Pan American Silver

Pan American Silver is the world's second largest primary silver producer, providing enhanced exposure to silver through a diversified portfolio of assets, large reserves and growing production. We own and operate mines in Mexico, Peru, Canada, Argentina and Bolivia. In addition, we own the Escobal mine in Guatemala that is currently not operating. In 2019, we celebrate our silver anniversary: 25 years of operating in Latin America, earning an industry-leading reputation for operational excellence and corporate social responsibility. We are headquartered in Vancouver, B.C. and our shares trade on NASDAQ and the Toronto Stock Exchange under the symbol "PAAS".

Learn more at panamericansilver.com.

### Cautionary Note Regarding Forward-Looking Statements and Information

Certain of the statements and information in this news release constitute "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 applicable Canadian provincial securities laws. All statements, other than statements of historical fact, are forward-looking statements or information. Forward-looking statements or

information in this news release relate to, among other things: the disclosure of future mineral reserve and resource information, including disclosure of mineral resource estimates relating to the La Colorada polymetallic skarn, and timing of any such disclosure; the extent of, and success related to any future exploration or development programs, including with respect to the La Colorada polymetallic skarn; the accuracy of estimated mineral reserves and mineral resources; expectations that metallurgical, environmental, permitting, legal, title, taxation, socio-economic, political, marketing or other issues will not materially affect estimates of mineral reserves and mineral resources.

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: our mineral reserve and mineral resource estimates and the assumptions upon which they are based; ore grades and recoveries; prices for silver, gold, and base metals remaining as estimated; 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 our operations are received in a timely manner; and our ability to comply with environmental, health and safety laws. The foregoing list of assumptions is not exhaustive.

The Company cautions the reader that forward-looking statements and information involve known and unknown risks, uncertainties and other factors that may cause actual results and developments to differ materially from those expressed or implied by such forward-looking statements or information contained in this news release and the Company has made assumptions and estimates based on or related to many of these factors. Such factors include, without limitation: fluctuations in silver, gold and base metal prices; fluctuations in prices for energy inputs, labour, materials, supplies and services (including transportation); fluctuations in currency markets (such as the Canadian dollar, Peruvian sol, Mexican peso, Argentine peso and Bolivian boliviano versus the U.S. dollar); operational risks and hazards inherent with the business of mining (including environmental accidents and hazards, industrial accidents, equipment breakdown, unusual or unexpected geological or structural formations, cave-ins, flooding and severe weather); employee relations; relationships with, and claims by, local communities and indigenous populations; our ability to obtain all necessary permits, licenses and regulatory approvals in a timely manner; changes in laws, regulations and government practices in the jurisdictions where we operate, including environmental, export and import laws and regulations; legal restrictions relating to mining, including in Chubut, Argentina, and in Guatemala; risks relating to expropriation; diminishing quantities or grades of mineral reserves as properties are mined; increased competition in the mining industry for equipment and qualified personnel; and those factors identified under the caption "Risks Related to Pan American's Business" in the Company's most recent form 40-F and Annual Information Form filed with the United States Securities and Exchange Commission and Canadian provincial securities regulatory authorities, respectively. 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. Investors are cautioned against undue reliance on forward-looking statements or information. 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 US Investors Regarding References to Mineral Reserves and Mineral Resources

This news release has been prepared in accordance with the requirements of Canadian securities laws, which differ from the requirements of U.S. securities laws. Unless otherwise indicated, all mineral reserve and resource estimates included in this news release have been disclosed in accordance with Canadian National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") and the Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards. NI 43-101 is a rule developed by the Canadian Securities Administrators that establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects.

Canadian public disclosure standards, including NI 43-101, differ significantly from the requirements of the United States Securities and Exchange Commission (the "SEC"), and information concerning mineralization, deposits, mineral reserve and resource information contained or referred to herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, this news release uses the terms "measured resources", "indicated resources", and "inferred resources". U.S. investors are advised that, while such terms are recognized and required by Canadian securities laws, the SEC does not recognize them. The requirements of NI 43-101 for identification of "reserves" are not the same as those of the SEC, and reserves reported by Pan American in compliance with NI 43-101

may not qualify as "reserves" under SEC standards. Under U.S. standards, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. U.S. investors are cautioned not to assume that any part of a "measured resource" or "indicated resource" will ever be converted into a "reserve". U.S. investors should also understand that "inferred resources" have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of "inferred resources" exist, are economically or legally mineable or will ever be upgraded to a higher category. Under Canadian securities laws, estimated "inferred resources" may not form the basis of feasibility or pre-feasibility studies except in rare cases. Disclosure of "contained ounces" in a mineral resource is permitted disclosure under Canadian securities laws. However, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC standards as in place tonnage and grade, without reference to unit measures. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.

SOURCE Pan American Silver Corp.

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https://news.panamericansilver.com/2019-09-04-Pan-American-Silver-Reports-Mineral-Reserves-of-557-Million-Ounces-of-Silver-and-5-1-Million-Ounces-of-Gold