



PAN AMERICAN
— SILVER —

Q3 2019 Earnings Review

Cautionary Note

Non-GAAP Measures

This presentation of Pan American Silver Corp. and its subsidiaries (collectively, "Pan American", "Pan American Silver", the "Company", "we" or "our") refers to various non-GAAP measures, such as "all-in sustaining costs per ounce sold", "cash costs per ounce sold", "adjusted earnings" and "basic adjusted earnings per share", "total debt", "capital", and "working capital". These measures do not have a standardized meaning prescribed by IFRS as an indicator of performance, and may differ from methods used by other companies. Any reference to "Cash Costs" in this presentation should be understood to mean cash costs per ounce of silver or gold sold, net of by-product credits. Any reference to "AISC" in this presentation should be understood to mean all-in sustaining costs per silver or gold ounce sold, net of by-product credits.

Readers should refer to the "Alternative Performance (Non-GAAP) Measures" section of the Company's Management's Discussion and Analysis ("MD&A") for the period ended September 30, 2019, available at www.sedar.com.

Reporting Currency and Financial Information

Unless we have specified otherwise, all references to dollar amounts or \$ are to United States dollars.

Integration of Tahoe Resources Inc. ("Tahoe")

On February 22, 2019, the Company completed the previously announced transaction whereby Pan American acquired all of the issued and outstanding shares of Tahoe ("Acquisition"). Tahoe was a mid-tier publicly traded precious metals mining company with ownership interests in a diverse portfolio of mines and projects including the following principal mines: La Arena and Shahuindo in Peru; Timmins West and Bell Creek in Canada (together "Timmins"); and Escobal in Guatemala, where operations have been suspended since June 2017 (together the "Acquired Mines"). The Company now operates three gold mines as a result of the Acquisition. Consequently, the Company's operations have been divided into silver and gold segments for the purposes of our financial reporting. All production, operating and financial results of the Acquired Mines (including Cash Costs and AISC amounts) and included in the Company's consolidated results and updated guidance, reflect only the results from February 22, 2019 onwards. Further details of the Acquisition are provided in the "Acquisition of Tahoe" section of the MD&A for the period ended September 30, 2019.

Cautionary Note Regarding Forward Looking Statements and Information

Certain of the statements and information in this presentation 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 presentation relate to, among other things, future financial and operational performance; future production of silver, gold and other metals produced by the Company, including the Acquired Mines; future Cash Costs and AISC; the sufficiency of the Company's current working capital, anticipated operating cash flow or its ability to raise necessary funds; the anticipated amount and timing of production at each of the Company's properties and in the aggregate; our expectations with respect to future metal prices and exchange rates; the duration and effect of the license suspensions and any road blocks relating to the Escobal mine; the estimated cost of and availability of funding necessary for sustaining capital; forecast capital and non-operating spending; and the Company's plans and expectations for its properties, operations and exploration projects.

These statements and information reflect Pan American's current views with respect to future events and are necessarily based upon a number of assumptions that, while considered reasonable by Pan American, are inherently subject to significant operational, business, economic and regulatory uncertainties and contingencies. These assumptions include: tonnage of ore to be mined and processed; 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; our mineral reserve and mineral resource estimates and the assumptions upon which they are based; prices for energy inputs, labour, materials, supplies and services (including transportation); no labour-related disruptions at any of our operations; no unplanned delays or interruptions in scheduled production; all necessary permits, licenses and regulatory approvals for our operations are received in a timely manner and can be maintained; and our ability to comply with environmental, health and safety laws, particularly given the potential for modifications and expansion of such laws. The foregoing list of assumptions is not exhaustive.

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Cautionary Note

Cautionary Note Regarding Forward Looking Statements and Information (continued)...

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 MD&A 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; fluctuations in currency markets (such as the PEN, MXN, ARS, BOL, GTQ and CAD versus the USD); risks related to the technological and operational nature of the Company's business; changes in national and local government, legislation, taxation, controls or regulations and political, legal or economic developments in Canada, the United States, Mexico, Peru, Argentina, Bolivia, Guatemala or other countries where the Company may carry on business, including the risk of expropriation related to certain of our operations, particularly in Argentina and Bolivia and risks related to the constitutional court-mandated ILO 169 consultation process in Guatemala; risks and hazards associated with the business of mineral exploration, development and mining (including environmental hazards, industrial accidents, unusual or unexpected geological or structural formations, pressures, cave-ins and flooding); risks relating to claims and legal proceedings involving or against the Company and our subsidiaries; risks relating to the credit worthiness or financial condition of suppliers, refiners and other parties with whom the Company does business; inadequate insurance, or inability to obtain insurance, to cover these risks and hazards; employee relations; relationships with and claims by the local communities and indigenous populations; availability and increasing costs associated with mining inputs and labour; the Company's ability to secure our mine sites or maintain access to our mine sites due to criminal activity, violence, or civil and labour unrest; the speculative nature of mineral exploration and development, including the risk of obtaining or retaining necessary licenses and permits and the presence of laws, regulations and other legal impediments that may impose restrictions on mining, including those currently in the province of Chubut, Argentina, or that might otherwise prevent or cause the suspension or discontinuation of mining activities; diminishing quantities or grades of mineral reserves as properties are mined; global financial conditions; the Company's ability to complete and successfully integrate acquisitions and to mitigate other business combination risks; challenges to, or difficulty in maintaining, the Company's title to properties and continued ownership thereof; the actual results of current exploration activities, conclusions of economic evaluations, and changes in project parameters to deal with unanticipated economic or other factors; increased competition in the mining industry for properties, equipment, qualified personnel, and their costs; having sufficient cash to pay obligations as they come due; 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 attributing undue certainty or 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, and does not assume any obligation, to update or revise forward-looking statements or information to reflect changes in assumptions or in circumstances or any other events affecting such statements or information, other than as required by applicable law.

Technical Information

Scientific and technical information contained in this presentation with respect to Pan American Silver Corp. has been reviewed and approved by Martin Wafforn, P.Eng., SVP Technical Services and Process Optimization, and Chris Emerson, FAusIMM, VP Business Development and Geology, who are Pan American's qualified persons for the purposes of National Instrument 43-101 ("NI 43-101"). Mineral reserves in this presentation were prepared under the supervision of, or were reviewed by, Martin Wafforn and Chris Emerson.

See Pan American's Annual Information Form dated March 12, 2019, available at www.sedar.com for further information on Pan American's material mineral properties as at December 31, 2018, including information concerning associated QA/QC and data verification matters, the key assumptions, parameters and methods used by the Pan American to estimate mineral reserves and mineral resources, and for a detailed description of known legal, political, environmental, and other risks that could materially affect Pan American's business and the potential development of Pan American's mineral reserves and resources. Please also refer to Pan American's news releases dated October 23, 2018, February 21, 2019, May 8, 2019, August 1, 2019, and October 1, 2019 with respect to the La Colorada skarn exploration results.

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 www.sedar.com.

The mineral reserves and resources of Pan American in this presentation reflect our mineral reserves and resources estimates as at June 30, 2019 as announced in our news release dated September 4, 2019. See presentation appendix for more detailed information.

Cautionary Note About Mineral Reserves and Resources

Cautionary Note to US Investors Concerning Estimates of Mineral Reserves and Resources

This presentation 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 presentation have been prepared 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 classification system. 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 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 presentation 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 has not recognized them under Industry Guide 7 prior to the adoption of the modernization of Property Disclosure for Mining Registrants. The requirements of NI 43-101 for identification of “reserves” has 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 has previously only permitted 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.

Consolidated Q3 2019 Highlights

- Revenue of \$352.2M, up 88% from Q3 2018, primarily on higher gold sales volumes and higher precious metal prices
- Net income of \$37.7M, or \$0.18 basic income per share
- Adjusted income of \$74.2M, or \$0.35 basic adjusted income per share
- Silver production of 6.7 Moz and gold production of 150.2 koz
- At September 30, 2019, the cash and short-term investment balance was \$177.0M. Total debt was \$360.5M and \$185.0M was available on the credit facility
- Quarterly cash dividend of \$0.035 per common share approved
- Integration of former Tahoe operations progressing well
- Exploration success continues at La Colorada

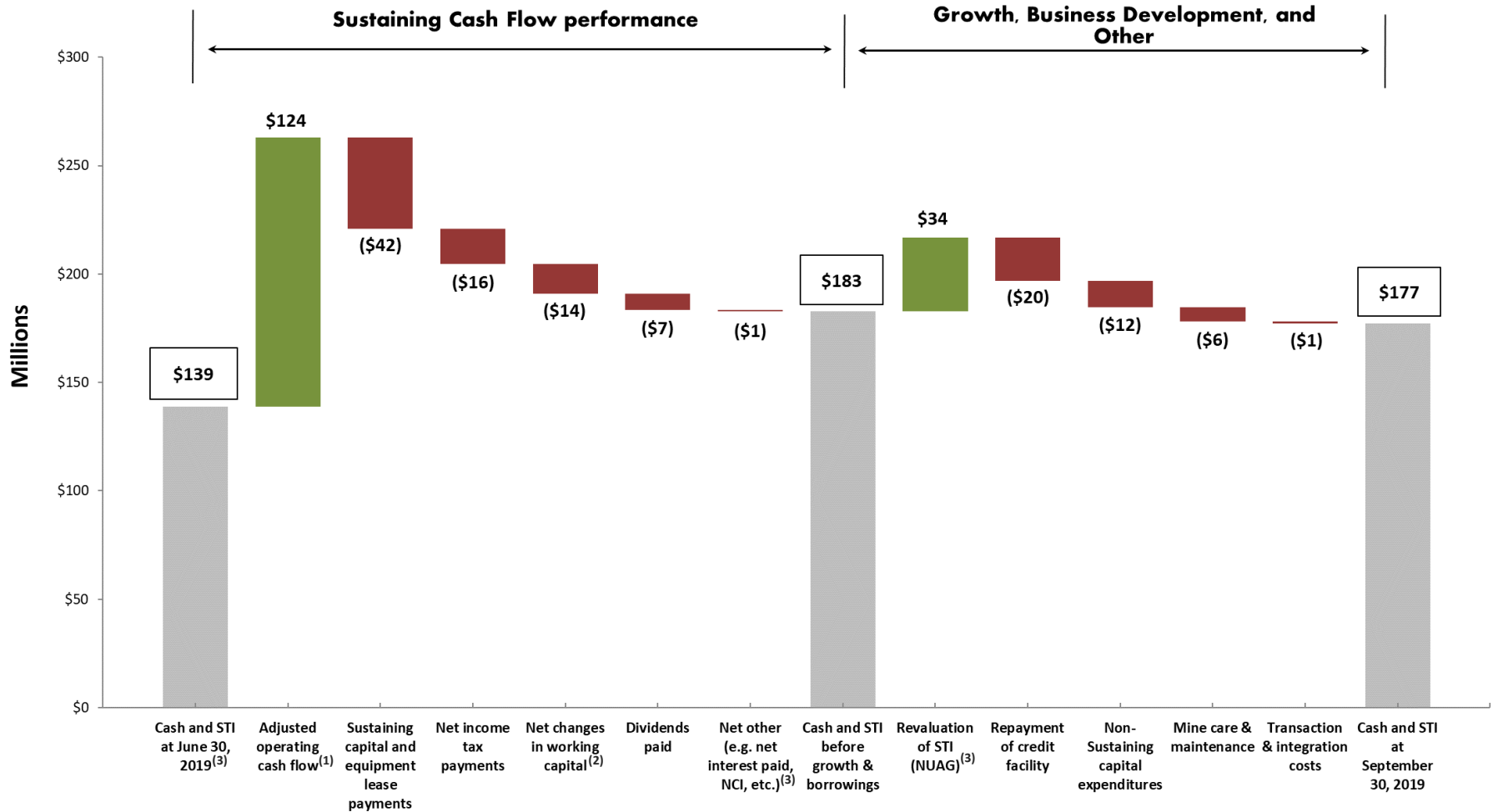
Consolidated Financial Results

Unaudited in millions of US\$, except per share amounts	Q3 2019	Q3 2018
Revenue	352.2	187.7
Mine operating earnings	63.9	(4.4)
Net earnings	37.7	(9.2)
Basic per share ⁽¹⁾	0.18	(0.06)
Adjusted earnings ⁽²⁾	74.2	(4.7)
Basic adjusted per share ⁽¹⁾	0.35	(0.03)
Net cash generated from operating activities	81.9	41.7

(1) Per share amounts are based on basic weighted average common shares.

(2) Adjusted earnings is a non-GAAP financial measure; see the "Non-GAAP Measures" section of our Cautionary Note on page 2 of this presentation.

Q3 2019 Consolidated Cash Flows



(1) Net cash generated from operating activities before changes in working capital, interest and income taxes paid, and mine care and maintenance.

(2) Excludes amounts included in Transaction and integration costs.

(3) "STI" means short-term investments, "NCI" means non-controlling interests, and "NUAG" means New Pacific Metals Corp.

Liquidity and Capital Position

US\$ Millions	September 30, 2019
Cash and Short-term Investments	177.0
Working Capital ⁽¹⁾	459.3
Amount drawn on Revolving Credit Facility	315.0
Total debt ⁽²⁾	360.5

(1) Working capital is a non-GAAP measure calculated as current assets less current liabilities. The Company and certain investors use this information to evaluate whether the Company is able to meet its current obligations using its current assets.

(2) Total debt is a non-GAAP measure calculated as the total of amounts drawn on the Company's \$500 million revolving credit facility, finance lease liabilities and loans payable.

See the "Non-GAAP Measures" section of our Cautionary Note on page 2 of this presentation.

Silver and Gold Production

Three months ended September 30,	Silver Production (ounces '000s)		Gold Production (ounces '000s)	
	2019	2018	2019	2018
Silver Segment:				
La Colorada	2,091	2,020	1.2	1.1
Dolores	1,496	967	33.1	33.1
Huaron	975	922	0.3	0.2
Morococha ⁽¹⁾	588	758	0.3	0.4
San Vicente ⁽²⁾	860	867	0.1	0.1
Manantial Espejo	606	718	5.4	7.1
Gold Segment:				
Shahuindo ⁽³⁾	37	—	40.6	—
La Arena ⁽³⁾	6	—	31.0	—
Timmins ⁽³⁾	5	—	38.3	—
Total⁽⁴⁾	6,665	6,253	150.2	42.1

(1) Morococha data represents Pan American's 92.3% interest in the mine's production.

(2) San Vicente data represents Pan American's 95.0% interest in the mine's production.

(3) Reflects production results subsequent to the February 22, 2019 closing date of the acquisition of these mines pursuant to the Tahoe Resources Inc. transaction.

(4) Totals may not add due to rounding.

Cash Cost and AISC

Three months ended September 30,	Cash Costs ⁽¹⁾ (\$ per ounce)		AISC ⁽¹⁾ (\$ per ounce)	
	2019	2018 ⁽²⁾	2019	2018 ⁽³⁾
La Colorada	2.82	4.46	4.03	6.27
Dolores	0.00	(2.91)	7.45	25.52
Huaron	5.32	3.55	8.69	11.03
Morococha	5.66	(0.97)	11.36	6.39
San Vicente	13.04	9.07	15.21	11.12
Manantial Espejo	24.22	13.23	21.35	24.78
Silver Segment Consolidated	5.47	4.41	8.80	12.76
Shahuindo	552	—	775	—
La Arena	738	—	988	—
Timmins	922	—	1,026	—
Gold Segment Consolidated⁽⁴⁾	729	—	920	—
Consolidated metrics per silver ounce sold⁽⁵⁾:				
All Operations	(8.66)	4.41	(0.11)	13.93
All Operations before NRV inventory adjustments	(8.66)	4.41	1.07	10.25

(1) Cash Costs and AISC are non-GAAP measures. Please refer to the section "Alternative Performance (Non-GAAP) Measures" of the MD&A for the period ended September 30, 2019 for a detailed description of these measures and where appropriate a reconciliation of the measures to the Q3 2019 Financial Statements.

(2) Silver Segment Cash Costs and AISC are calculated net of credits for realized revenues from all metals other than silver ("by-product credits"), divided by per ounce of silver sold. Cash Cost are therefore different from previously reported Q3 2018 "Cash Costs", which were calculated based on Cash Costs net of by-product credits divided by payable silver ounces produced. The Q3 2018 cash costs per ounce sold included in the table above have been calculated and presented as comparative amounts to conform to the methodology used by the Company to calculate the Q3 2019 Cash Costs per ounce sold.

(3) 2018 AISC per ounce sold in the table above have been calculated and presented as comparative amounts to conform to the methodology used by the Company to calculate the 2019 AISC per ounce sold. The change in methodology relates to the sustaining capital calculation to account for the adoption of IFRS 16, with sustaining capital now including lease payments. Previously, leased assets were included as sustaining capital in the period of acquisition, while future related lease payments were excluded.

(4) Gold Segment Cash Costs and AISC are calculated net of credits for realized silver revenues divided by per ounce of gold sold.

(5) Consolidated silver basis total is calculated per silver ounce sold with total gold revenues included within by-product credits. G&A costs are included in the consolidated AISC, but are not allocated in calculating AISC for each operation.

2019 Guidance

The table provides management's guidance for 2019, as at November 6, 2019.

	Silver Production (million ounces)	Gold Production (thousand ounces)	Cash Costs (\$ per ounce) ⁽¹⁾	AISC (\$ per ounce) ⁽¹⁾
Silver Segment ⁽²⁾	25.2 – 26.2	140.5 – 152.5	6.00 – 7.00	9.50 – 11.00
Gold Segment ⁽²⁾	0.1	409.5 – 447.5	725 - 775	1,000 – 1,100
Consolidated Silver Basis⁽²⁾⁽³⁾	25.3 – 26.3	550.0 – 600.0	(5.50) – (3.80)	6.00 – 7.50

- (1) Cash Costs and AISC are non-GAAP measures. Please refer to the section "Alternative Performance (Non-GAAP) Measures" of the MD&A for the period ended September 30, 2019, for a detailed description of these measures and where appropriate a reconciliation of the measure to the Q3 2019 Financial Statements. The Cash Costs and AISC forecasts assume realized metal prices for YTD 2019 and the following metal prices for the remainder of 2019 of \$17.25/oz for silver, \$2,400/tonne (\$1.09/lb) for zinc, \$2,150/tonne (\$0.98/lb) for lead, \$5,750/tonne (\$2.61/lb) for copper, and \$1,475/oz for gold; and average annual exchange rates relative to 1 USD of 19.50 for the Mexican peso ("MXN"), 3.33 of the Peruvian sol ("PEN"), 41.80 for the Argentine peso ("ARS"), 6.91 for the Bolivian boliviano ("BOL"), and \$1.30 for the Canadian dollar ("CAD").
- (2) As shown in the detailed quantification of consolidated AISC, included in the "Alternative Performance (Non-GAAP) Measures" section of the MD&A for the period ended September 30, 2019, corporate general and administrative expense, and exploration and project development expense are included in Consolidated Silver Basis AISC, but are not allocated in calculating AISC for the Silver and Gold segments.
- (3) Totals may not add due to rounding.

Capital Expenditures

The table summarizes capital expenditures YTD 2019 compared to guidance.

(in millions of USD)	YTD 2019 Actual	2019 Guidance
Sustaining Capital	132.9	203.0 – 213.0
Project Capital	35.1	45.0
Total Capital	168.0	248.0 - 258.0

Strategic Priorities

Integration & Synergies

- Integrate Tahoe operations and capture synergies
- Divest non-core assets over time

Capital Allocation

- Reduce debt incurred through Tahoe acquisition
- Cash dividend \$0.035/share for Q3 2019
- Invest in high-return projects

Operations

- Focus on cost control to optimize operating margins
- Ramp-up Dolores underground mine to 1,500 tpd
- Re-initiate development of the Joaquin and COSE mines in H2 2019

Value Drivers

- La Colorada exploration discovery – targeting initial resource estimate in December 2019
- Potential development of the Navidad project
- Potential restart of operations at Escobal

Vision: The Premier Silver Mining Company



Q&A

To join the queue:

Press * and 1 on your touch-tone telephone. You will hear a tone acknowledging your request.

If you wish to remove yourself from the queue, press * and 2

Pan American Silver Proven and Probable Reserves^{1,2}

Property	Location	Classification	Tonnes (Mt)	Ag (g/t)	Contained Ag (Moz)	Au (g/t)	Contained Au (koz)	Cu (%)	Contained Cu (kt)	Pb (%)	Contained Pb (kt)	Zn (%)	Contained Zn (kt)
Silver Segment													
Huaron	Peru	Proven	6.2	168	33.5	-	-	0.69	43.0	1.44	89.5	3.02	188.1
		Probable	3.7	170	20.1	-	-	0.33	12.3	1.55	57.1	3.00	110.2
Morococha (92.3%) ⁽³⁾	Peru	Proven	4.1	147	19.5	-	-	0.38	15.5	1.38	57.1	4.03	166.7
		Probable	2.2	173	12.3	-	-	0.31	6.9	1.20	26.5	3.26	72.2
La Colorada	Mexico	Proven	4.0	395	50.8	0.33	42.0	-	-	1.72	68.9	3.11	124.4
		Probable	5.4	287	49.6	0.26	44.4	-	-	1.35	72.4	2.44	131.4
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%) ⁽³⁾	Bolivia	Proven	1.4	414	18.6	-	-	0.43	6.0	0.35	4.9	3.06	42.9
		Probable	0.5	345	6.0	-	-	0.32	1.7	0.42	2.3	2.71	14.5
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	-	-	1.02	25.7	1.75	44.4
		Probable	22.1	316	225.0	0.34	243.8	-	-	0.77	169.9	1.25	275.7
Total Silver Segment⁽⁴⁾			97.5	169	530.4	0.64	1,644.1	0.47	85.4	1.10	574.1	2.24	1,170.6
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⁽⁴⁾			175.0	6	26.8	0.62	3,476.9	-	-	-	-	-	-
Total Gold and Silver Segments⁽⁴⁾		Proven + Probable	272.5	77	557.2	0.63	5,121.1	0.47	85.4	1.10	574.1	2.24	1,170.6

(1) See table below entitled "Metal price assumptions used to estimate mineral reserves and resources as at 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 National Instrument 43-101 ("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 Measured and Indicated Resources^{1,2}

Property	Location	Classification	Tonnes (Mt)	Ag (g/t)	Contained Ag (Moz)	Au (g/t)	Contained Au (koz)	Cu (%)	Pb (%)	Zn (%)
Silver Segment										
Huaron	Peru	Measured	2.2	157	11.0	-	-	0.59	1.50	2.80
		Indicated	2.4	155	12.0	-	-	0.61	1.64	3.03
Morococha (92.3%) ⁽³⁾	Peru	Measured	0.3	138	1.2	-	-	0.29	0.86	2.14
		Indicated	0.3	143	1.6	-	-	0.20	0.83	2.09
La Colorada	Mexico	Measured	0.5	229	3.8	0.24	4.0	-	0.65	1.16
		Indicated	1.6	185	9.6	0.15	7.8	-	0.56	1.16
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%) ⁽³⁾	Bolivia	Measured	0.9	161	4.4	-	-	0.22	0.20	2.27
		Indicated	0.3	158	1.4	-	-	0.27	0.21	1.73
Navidad	Argentina	Measured	15.4	137	67.8	-	-	0.10	1.44	-
		Indicated	139.8	126	564.5	-	-	0.04	0.79	-
Joaquin	Argentina	Indicated	0.1	385	0.7	0.58	1.1	-	-	-
Escobal	Guatemala	Measured	2.3	251	18.6	0.23	16.7	-	0.31	0.59
		Indicated	14.2	201	91.6	0.20	93.0	-	0.38	0.66
Total Silver Segment⁽⁴⁾			184.0	134	792.9	0.27	195.3	0.06	0.82	1.21
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	0.37	-	-
		Indicated	586.7	-	-	0.23	4,371.9	0.35	-	-
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	-	-	-
Vogel	Canada	Indicated	2.2	-	-	1.75	125.0	-	-	-
Total Gold Segment⁽⁴⁾			854.9	7	4.1	0.38	10,439.6	0.35	-	-
Total Gold and Silver Segments⁽⁴⁾		Measured + Indicated	1,038.8	122.8	797.0	0.38	10,634.9	0.30	0.82	1.21

(1) See table below entitled "Metal price assumptions used to estimate mineral reserves and resources as at 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 National Instrument 43-101 ("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 Inferred Resources^{1,2}

Property	Location	Classification	Tonnes (Mt)	Ag (g/t)	Contained Ag (Moz)	Au (g/t)	Contained Au (koz)	Cu (%)	Pb (%)	Zn (%)
Silver Segment										
Huaron	Peru	Inferred	6.2	155	30.8	-	-	0.41	1.45	2.77
Morococha (92.3%) ⁽³⁾	Peru	Inferred	4.5	138	19.9	-	-	0.37	1.02	3.26
La Colorada	Mexico	Inferred	8.1	133	34.5	0.12	31.6	-	2.03	4.01
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%) ⁽³⁾	Bolivia	Inferred	3.0	289	27.9	-	-	0.24	0.38	3.32
Navidad	Argentina	Inferred	45.9	81	119.4	-	-	0.02	0.57	-
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	-	0.22	0.42
Total Silver Segment⁽⁴⁾			74.0	106	252.5	0.62	289.5	0.10	0.83	3.17
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	0.17	-	-
Fenn-Gib	Canada	Inferred	24.5	-	-	0.95	750.0	-	-	-
Whitney	Canada	Inferred	1.0	-	-	5.34	170.7	-	-	-
Gold River	Canada	Inferred	5.3	-	-	6.06	1,027.4	-	-	-
Juby	Canada	Inferred	96.2	-	-	0.94	2,908.8	-	-	-
Vogel	Canada	Inferred	1.5	-	-	3.60	168.8	-	-	-
Total Gold Segment⁽⁴⁾			369.8	13	50.0	0.78	9,297.6	0.17	-	-
Total Gold and Silver Segments⁽⁴⁾		Inferred	443.8	48	302.5	0.78	9,587.1	0.14	0.83	3.17

(1) See table below entitled "Metal price assumptions used to estimate mineral reserves and resources as at June 30, 2019".

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(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.

Metal price assumptions used to estimate mineral reserves and resources as at 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
Morococho	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			
	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			
	Resources	22.00	1,400			
Shahuindo Sulphide	Inferred Resource	15.00	1,400			
La Arena	Reserves	17.00	1,400			
	Resources	22.00	1,500			
La Arena II	All categories		1,500	8,816		
Timmins - Bell Creek	All categories		1,300			
Timmins - Timmins West	All categories		1,300			
Fenn-Gib	Inside pit		1,190			
	Below pit		1,190			
Whitney	All categories		1,200			
Gold river	All categories		1,200			
Juby ⁽¹⁾	All categories					
Marlhill	All categories		1,125			
Vogel	Inside pit		1,150			
	Below pit		1,150			

(1) Estimation used a cut off grade of 0.40% g/t Au.



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