



Golden Minerals Reports Improved Economics in Second PEA for Santa Maria Silver-Gold Project

GOLDEN, Co., Oct. 03, 2018 -- Golden Minerals Company ("Golden Minerals", "Golden" or "the Company") (NYSE American and TSX: AUMN) today reported results from a second Preliminary Economic Assessment ("PEA") completed for its Santa Maria silver and gold project located in southern Chihuahua State, Mexico.

The PEA presents an updated assessment and incorporates data accumulated since March 2017. It includes an additional 77 hectares of mineral tenure acquired in August 2017 that cover the on-strike and downdip extensions of the Santa Maria vein systems. It also incorporates information from a 22-hole, 4,800-meter drilling program completed in 2018. The new PEA shows significant improvement in projected cash flow, metal production and profitability compared to the previous study. Additionally, the PEA includes an updated National Instrument 43-101 ("NI 43-101") compliant mineral Resource Estimate dated as of September 14, 2018.

Warren M. Rehn, President and Chief Executive Officer of Golden Minerals Company, comments, "The Santa Maria project offers Golden Minerals a low capital cost re-entry into potential silver production in Mexico. Estimated future cash flow and NPV have increased by about 50% based on the additional resources in the study. The \$1M start-up cost is at the lowest end of the spectrum of capital cost requirements due to the project's proximity to existing process facilities and the existing underground development. It is also important to point out that the deposit is open at depth and there are numerous additional veins on the property that have not yet been drilled."

PEA Highlights

- After-tax net present value ("NPV"): (US)\$10.6 million at a 5% discount rate
- After-tax internal rate of return ("IRR"): 159.0%
- After-tax payback period: 10 months
- Total capital cost: \$1.2 million, comprised of \$1.0 million initial and \$0.2 million sustaining capital expenditures
- Pre-production development time: 6 months
- Life of mine ("LOM") 4.2 years
- LOM after tax free cash flow \$12.4 million
- LOM payable silver production 2.66 million oz.
- LOM payable silver equivalent production 3.13 million oz¹
- LOM average silver grade 331 grams per tonne ("g/t")
- LOM average gold grade 0.78 g/t
- Net cash cost \$10.72 per payable ounce of silver²
- All-in sustaining costs ("AISC") \$11.12 per payable silver oz.²

¹ Calculated using prices of Au \$1,238/oz and Ag \$16.63/oz, or 74:1 gold: silver

² Cash cost and AISC are defined in "Non-GAAP Financial Measures" below

Note: PEA parameters assume a silver price of \$16.63/oz and a gold price of \$1,238/oz, which are the three-year trailing average prices, per SEC reporting guidelines, and a discount rate of 5%. All figures throughout this release are expressed in US Dollars unless otherwise noted.

Key parameters of the PEA are shown in the following sections. Please note the PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Standalone economics have not been undertaken for the Indicated Resources and as such no reserves have been estimated for the project. There is no certainty that the economic results described in the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

Financial Summary

After-tax economic results have been summarized below.

Financial Results Summary	
Financial Results	Post-Tax (\$M)
Cumulative Cash Flows (LOM)	\$12.4
Net Present Value (5%) (Base Case)	\$10.6
Net Present Value (8%)	\$9.7
Net Present Value (10%)	\$9.1
Internal Rate of Return (IRR)	159.0%

Payback	0.8 years
Total Capital Costs	\$1.2

Key Model Parameters

TEM Results		
Description	Unit Cost (\$/t-milled)	Total Value (\$000s)
NSR	\$146.27	\$45,055
Land Acquisition	(\$2.97)	(\$915)
Net Revenue	\$143.30	\$44,140
Operating Costs		
Mining	\$49.31	\$15,188
Processing	\$43.26	\$13,324
G&A	\$1.34	\$412
Lease	\$0.75	\$230
Operating Costs	\$94.65	\$29,154
Operating Margin	\$48.65	\$14,986
Capital Costs		
Mining	-	\$370
Infrastructure	-	\$525
Owner Costs	-	\$316
Capital Costs	-	\$1,211
Estimate of Tax		
Federal Tax	-	\$0
Special Mining Tax	-	(\$1,170)
Precious Metals Tax	-	(\$225)
Estimate of Tax	-	(\$1,395)
Cash Flow	-	\$12,380
NPV 5%	-	\$10,593
IRR	-	159.3%
Payback (months)	-	10

General Assumptions

General Assumptions		
Description	Units	Value
Market Prices		
Gold ¹	\$/oz	\$1,238
Silver ¹	\$/oz	\$16.63
Taxes		
Federal Tax ²	%	30.0%
Special Mining Tax	%	7.5%
Precious Metals Tax	%	0.5%
Financial		
Discount Rate	%	5.0%

¹ Three-year trailing average prices, per SEC reporting guidelines

² Not applied due to Net Operating Losses

Process Summary

Process Summary		
Description	Units	Value
Payable Metal Recoveries		
<u>Sulfide</u>		
Gold	%	83%
Silver	%	91%
<u>Transition</u>		
Gold	%	89%
Silver	%	94%
<u>Oxide</u>		
Gold	%	85%
Silver	%	73%
Recovered Metals		
Gold	koz	6.5
Silver	koz	2,745

Capital Estimates

Initial capital costs of \$1.0 million are anticipated to be very low due to the utilization of an existing third-party mill for processing and an existing equipment fleet from the Company's Velardeña Properties. Sustaining capital is estimated at just \$0.2 million over the mine life and includes closure costs.

Capital Cost Estimate Summary			
Description	Initial Capital (\$000s)	Sustaining Capital (\$000s)	Total Capital (\$000s)
Mining	\$370	\$0	\$370
Infrastructure	\$525	\$0	\$525
Owner's Costs	\$128	\$188	\$316
Total	\$1,023	\$188	\$1,211

Mining Operations and Milling

The PEA estimates a 4.2-year underground mining operation using pre-existing and new underground development at an average mine production rate of 218 tonnes per day, using a combination of cut-and-fill and sublevel stoping. It is currently envisioned that both mixed and sulfide materials will undergo toll-milling at a local third-party facility with sulfide flotation circuits. Oxide material will be cyanide leached at the same toll-milling facility. Santa Maria is estimated to deliver 150k tonnes of diluted sulfide mineralized material to the mill at an average grade of 378 g/t silver equivalent ("AgEq"), 116k tonnes of diluted oxide material at an average grade of 428 g/t AgEq and 42k tonnes of diluted transitional material at an average grade of 278 g/t AgEq.

Mineral Resource Estimate Dated September 14, 2018

In conjunction with the PEA, Tetra Tech prepared an updated Mineral Resource estimate in compliance with NI 43-101 at Santa Maria.

Classification	Cutoff Grade	Tonnes	Ag g/t	Au g/t	AgEq g/t	Ag toz	Au toz	AgEq toz
	AgEq g/t					(M)	(k)	(M)
Measured	180	42,000	271	0.83	333	0.37	1.13	0.45
Indicated	180	170,000	291	1.04	368	1.59	5.7	2.01
Inferred	180	261,000	272	0.9	346	2.3	7.61	2.92

Notes:

1. Cutoff grade and Ag equivalent calculated using metal prices of \$16.63 and \$1,238 per troy ounce of Ag and Au with a ratio of 74:1, the 3-year trailing average as of the end of May 2018;
2. Cutoff applied to diluted Ag equivalent block grades using recoveries of 90% and 80% Ag and Au;
3. Columns may not total due to rounding.

Property Title and Ownership

Golden Minerals has the right to acquire the Santa Maria property under two separate option agreements representing the total concessions that comprise the property for additional payments of \$1.2 million, payable through April 2022. The first option agreement covers concessions acquired in August 2014 and requires an additional \$0.6 million be paid by continuing to make minimum payments of \$0.2 million in each of the years 2019 through 2021. In addition, until the total due under the first option agreement has been paid, the property owners have the right to 50% of any net profits from mining activities from the concessions related to the option, after reimbursement of all costs incurred by us since April 2015, to the extent that such net profit payments exceed the minimum payments. The second option agreement covers concessions acquired in August 2017 and requires an additional \$0.6 million be paid by making additional payments of \$0.2 million in each of the years 2019 through 2021.

PEA Information

The discounted cash flows in the PEA are provided post-tax and are prepared in compliance with National Instrument 43-101 of the Canadian Securities Administrators. Tetra Tech is an independent engineering firm that served as principal author of the PEA prepared on behalf of the Company. The following Qualified Persons from Tetra Tech will co-author the technical report that will be filed on SEDAR within 45 days of this news release: Dante Ramírez, PhD, MMSA QP, and Leonel López, AIPG-Geol. Eng. QP, SME-RM. Each of these Qualified Persons has reviewed and approved the information presented in this news release that was derived from the sections of the PEA study for which they were responsible. Each of the named Qualified Persons is independent of Golden Minerals.

The contents of this press release have been reviewed and approved by Warren M. Rehn, M.Sc., QP MMSA (#01449QP), a Qualified Person for the purposes of NI 43-101. Mr. Rehn has over 33 years of mineral exploration experience and is President, Chief Executive Officer and a Director of Golden Minerals Company.

Data Verification

Tetra Tech authors of this and previous technical reports prepared for the Company visited the Santa Maria site to conduct data verification activities on multiple occasions in conjunction with the 2015 and 2017 reports. Data verification conducted during site visits included observations of drill hole collar locations and orientations, drill core, channel sample locations, channel sample collection, underground mine accesses, on mineralized structure drifts and stopes, stockpiled oxide material from waste backfill mucking. The deposit was witnessed in underground workings and at the surface but was not traversed in its entirety. Confirmatory sampling of drill core was not completed due to the sparseness of mineral intervals; the author did not want to eliminate the physical record of previously halved core for the purposes of verification.

Drill hole collars and their orientations were observed in the field using a compass and handheld global positioning system (GPS). Verification of collars locations and orientations were found to correspond to those provided by Minera Cordilleras, a Mexican wholly-owned subsidiary of Golden Minerals.

Core boxes containing mineralized intervals of the following drill holes SM14-04 and SM14-09 were made available for visual review. The textures observed are typical of epithermal veins including banding of quartz and sulfide minerals, quartz flooding, brecciation, and oxidation. In addition to visually reviewing core on site, the author has reviewed core photos of mineral intervals and spot checked the assay database provided with assay certificates from the laboratory.

As part of the data verification, 18 channel samples were selected to be re-sampled and submitted to ALS for analysis. The samples were chosen by the author of this report and were collected on the ramp and the East side of the 1890-meter level. The collection of the samples from within the mine was witnessed by the author. The samples were delivered to ALS Chihuahua where the sample preparation facility was toured. The original samples from the project database are compared to the check samples, the chart axes have been log base 10 transformed. The results of the verification sampling correspond well to those provided by Minera Cordilleras.

As such, the quality of data collected by Minera Cordilleras meets industry standard practice and is sufficient to support the estimation of Mineral Resources.

About Golden Minerals

Golden Minerals is a Delaware corporation based in Golden, Colorado. The Company is primarily focused on advancing its El Quevar silver property in Argentina and in acquiring and advancing mining properties in Mexico with emphasis on areas near its Velardeña processing plants.

Cautionary Note to United States Investors Regarding Estimates of Indicated and Inferred Mineral Resources

This press release uses the terms "Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources" which are defined in, and required to be disclosed by, NI 43-101. We advise U.S. investors that these terms are not recognized under the SEC Industry Guide 7. Accordingly, the disclosures regarding mineralization in this news release may not be comparable to similar information disclosed by Golden Minerals in the reports it files with the SEC. The estimation of measured resources and indicated resources involves greater uncertainty as to their existence and economic feasibility than the estimation of proven and probable reserves. The estimation of inferred resources involves far greater uncertainty as to their existence and economic viability than the estimation of other categories of resources. US investors are cautioned not to assume that any or all of Minerals Resources are economically or legally mineable or that these Mineral Resources will ever be converted into Mineral Reserves. In addition, the SEC normally only permits issuers to report mineralization that does not constitute SEC Industry Guide 7 compliant "reserves" as in-place tonnage and grade without reference to unit amounts. U.S. investors are urged to consider closely the disclosure in our Annual Report on Form 10-K and other SEC filings.

Non-GAAP Financial Measures

Cash cost per payable silver ounce is a non-GAAP financial measure calculated by the Company as set forth below and may not be comparable to similar measures reported by other companies. Cash cost includes all direct and indirect costs associated with the physical activities that would generate concentrate products for sale to customers, including mining to gain access to mineralized materials, mining of mineralized materials and waste, milling, third-party related treatment, refining and transportation costs, on-site administrative costs and royalties. Cash cost does not include depreciation, depletion, amortization, exploration expenditures, reclamation and remediation costs, financing costs, income taxes, or corporate general and administrative costs not directly or indirectly related to Santa Maria. Cash cost is divided by the number of payable silver ounces generated by the plant for the period to arrive at cash cost per payable ounce of silver.

All-in sustaining costs ("AISC") includes cash cost plus on-site exploration, reclamation and sustaining capital costs. AISC is divided by the number of payable silver ounces generated by the plant for the period to arrive at AISC per payable ounce of silver.

Cost of sales is the most comparable financial measure, calculated in accordance with GAAP, to cash cost. As compared to cash cost, cost of sales includes adjustments for changes in inventory and excludes third-party related treatment, refining and transportation costs, which are reported as part of revenue in accordance with GAAP.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended, and applicable Canadian securities legislation, including statements regarding the Santa Maria PEA results (including cost estimates, assumption of silver and gold prices, development timing, expected cash flows and life of mine and production expectations); future activities at Santa Maria, the likelihood of future expansion of the deposit, and the possibility of future development; and estimates of mineral resources for the Santa Maria project. These statements are subject to risks and uncertainties, including, but not limited to: the reasonability of the economic assumptions at the basis of the results of the Santa Maria PEA and technical report; changes in interpretations of geological, geostatistical, metallurgical, mining or processing information and interpretations of the information resulting from future exploration, analysis or mining and processing experience; declines in general economic conditions; fluctuations in exchange rates and changes in political conditions, in tax, royalty, environmental and other laws in Mexico and financial market conditions; new information from drilling programs or other exploration or analysis; unexpected variations in mineral grades, types and metallurgy; fluctuations in silver and gold prices; and failure of mined material or veins mined to meet expectations. Golden Minerals assumes no obligation to update this information. Additional risks relating to Golden Minerals may be found in the periodic and current reports filed with the SEC by Golden Minerals, including the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

For additional information please visit <http://www.goldenminerals.com/> or contact:

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