

Endeavour Silver Announces Robust Economics in Final Pre-Feasibility Study on the Terronera Mine Project in Jalisco State, Mexico

Video Webcast and Q&A on July 14, 2020

VANCOUVER, British Columbia, July 14, 2020 - Endeavour Silver Corp. (NYSE: EXK) (TSX: EDR - <https://www.commodity-tv.com/play/endeavour-silver-virtual-roadshow-investor-presentation/>) announces that the Company's recent re-assessment of all aspects of the Terronera Mine Project in Jalisco state, Mexico has resulted in more robust economics in the final Pre-Feasibility Study ("2020 PFS") compared to the earlier Pre-Feasibility Study released on August 30, 2018 ("2018 PFS").

Endeavour management worked with Ausenco Engineering Canada Inc. (Ausenco) on the re-conceptualization and re-engineering of the project to generate the significantly improved 2020 PFS economics presented herein. Ausenco will co-author the 2020 PFS Technical Report in compliance with National Instrument 43-101, to be filed on SEDAR and EDGAR within 45 days of this news release. All currency references herein are in US\$.

The PFS base case assumes a two-year trailing average silver price of \$15.97 per ounce ("oz") and a gold price of \$1,419 per oz with an implied 89:1 silver:gold ratio, and an MXN:USD exchange rate of 20:1. The 2020 PFS also presents an alternative spot case using the closing metal prices as of July 8th, 2020, with silver at \$18.49 per oz and gold at \$1,812 per oz for a silver: gold ratio of 98:1.

Additional details and charts can be found in the NI 43-101 Technical Report which will be posted on SEDAR and the 2020 PFS webinar presentation available ([here](#)) on the Company website.

2020 PFS Base Case Highlights

- After-tax Net Present Value ("NPV 5%") of \$137 million
- After-tax Internal Rate of Return ("IRR") of 30.0%
- Life of Mine ("LOM") Annual Production averages 3 million oz silver and 32,800 oz gold for 5.9 million oz silver equivalent ("AgEq") at an 89:1 silver:gold ratio over an initial 10 year Mine Life
- LOM Cash Cost ("CC") of \$0.004 per oz silver, net of the gold credit
- LOM Mine-Site All-in Sustaining Cost ("MAISC") of \$2.10 per oz silver, net of the gold credit
- Initial Capital Expenditure ("Capex") of \$99 million
- LOM Sustaining Capital Expenditures of \$60 million
- Payback Period ("Payback") of 2.7 years
- Pre-tax cumulative undiscounted free cash flow of \$315 million
- After-tax cumulative undiscounted free cash flow of \$217 million

2020 PFS Spot Case Highlights

- After-tax NPV 5% of \$229 million
- After-tax IRR of 45.7%
- LOM CC of (\$4.15) per oz silver, net of the gold credit
- LOM Mine-Site All-in Sustaining Cost (“MAISC”) of (\$2.06) per oz silver, net of the gold credit
- Payback of 1.7 years
- Pre-tax cumulative undiscounted free cash flow of \$514 million
- After-tax cumulative undiscounted free cash flow of \$342 million

Bradford Cooke, CEO, commented, “This final iteration of our Terronera PFS adds real value to the project, reducing the initial development capex and significantly enhancing our financial returns. Endeavour’s Director of Project Development Ernesto Lima worked with Ausenco to re-evaluate every parameter in our previous Pre-Feasibility studies and the result is very simply a better project, with low capital and operating costs, quick payback period and robust financial returns.”

“At base case prices, the improved economics include an NPV of \$137 million, IRR of 30.0%, and payback period of 2.7 years. At current spot prices, the project exhibits the exceptional economics that one would expect from such a shallow, thick and rich silver-gold vein system. Endeavour now plans to complete a Feasibility Study at an estimated cost of \$1.8 million over the next 12 months. Terronera represents our next core asset and once built, should become our largest and lowest cost mine.”

Location, Access, Physiography, Infrastructure

Terronera is located approximately 50 kilometres (km) northeast of the port city of Puerto Vallarta in Jalisco state, Mexico, about a 1½ hour drive on Highway 70 to the town of San Sebastian del Oeste. The property has excellent road access and is situated in a mountainous region at elevations of 1,500-2,200 metres (m) above sea level. Supplies, water, power and labour are all available locally however for mining operations, new water wells, more power capacity and employee camps will be required.

Property, History, Geology, Mineralization

Terronera consists of 24 mineral concessions totalling 17,369 hectares. Discovered in 1542, the San Sebastian district went through sporadic periods of small-scale silver and gold production from more than 50 old mines on approximately 20 mineralized veins. All mining halted around 1910-1912 during the Mexican Revolution and not much happened at Terronera until Grupo Mexico acquired the project and conducted some exploration work in the late 1980’s and early 1990’s. Endeavour acquired an option from Grupo Mexico to purchase Terronera for \$2.75 million in 2010, and all expenditures since inception including exploration and engineering to date total \$27.8 million. The Company commenced exploration work in 2011 and discovered mineralization in the Terronera Vein in 2012. High grade, silver-gold sulfide and sulfosalt mineralization is hosted in multiple low sulfidation, epithermal veins from 1 to 30 m thick over an area 12 km long by 6 km wide. The veins occur within late Cretaceous andesite to rhyolite volcanic rocks within the

Sierra Madre Occidental metallogenic belt where it transects the Trans-Mexico Volcanic Belt.

Reserves and Resources

The 2020 PFS provides a revised mine plan, including revised mining dilution and recovery assumptions, which resulted in slight reductions to tonnes, grades and oz in the December 31, 2019 Mineral Reserve Estimate. Probable Mineral Reserves totaled 5.563 million tonnes grading 201 gpt silver and 2.29 gpt gold or 405 gpt AgEq (89:1 silver:gold ratio) for 36.0 million oz silver and 410,000 oz gold or 72.5 million oz AgEq. Inferred Mineral Resources total 1.080 million tonnes grading 208 gpt silver and 2.28 gpt gold or 379 gpt AgEq for 7.2 million oz silver and 79,000 oz gold or 13.2 million oz AgEq. Changes from the 2018 PFS Mineral Reserve Estimate include tonnes up 18%, silver grade down 10%, gold grade up 0.4%, silver oz up 6.5% and gold oz up 20%, mainly due to infill drilling of the Terronera and La Luz Inferred Mineral Resources to upgrade them to Probable Mineral Reserves.

2020 PFS Base Case Compared to 2018 PFS

The following table compares the 2020 PFS compared to the 2018 PFS.

TERRONERA PROJECT	PFS Change		
2020 PFS Compared to 2018 PFS	2020	2018	Change
Silver Price	15.97	17.00	(6%)
Gold Price	1,419	1,275	11%
Silver:Gold Ratio	89	75	19%
Operating Statistics			
LOM Tonnes Processed LOM (thousands)	5,563	4,701	18%
Process Capacity (tonnes per day)	1,600	1,500	7%
Life of Mine (years)	10.0	9.5	5%
Average silver grade (gpt)	201	224	(10%)
Average gold grade (gpt)	2.29	2.26	1%
Silver equivalent grade (gpt)	405	394	3%
Average silver recovery	84.9%	84.6%	0%
Average gold recovery	82.3%	80.4%	2%
LOM payable Ag ounces produced (millions)	29.8	27.9	6%
LOM payable Au ounces produced (thousands)	328	268	18%
LOM payable Ag Eq ounces produced (millions)	59.0	48.0	19%
Avg annual payable Ag ounces produced (millions)	3.0	2.9	1%
Avg annual payable Au ounces produced (thousands)	33	28	14%
Avg annual payable Ag Eq ounces produced (millions)	5.9	5.1	14%
Capital Expenditures			
Initial Capital Expenditure (millions)	99.1	115.0	(14%)
LOM Sustaining Capital	62.4	25.8	142%
Total LOM Project Capital	161.5	140.8	15%

Financial Metrics

LOM Revenue (millions)	942.7	815.8	16%
LOM EBITDA (millions)	476.4	447.7	6%
After Tax LOM Free Cash Flow (millions)	217.4	193.2	13%
After Tax Project Net Present Value (millions)	137.1	117.8	16%
After Tax Internal Rate of Return	30.0%	23.5%	28%
Pay Back Period (years)	2.7	5.4	(50%)
Cash costs by Product (per silver ounce)	0.004	0.15	(100%)
Mine-site All in sustaining (per silver ounce)	2.10	1.36	54%
Cash costs by Silver Equivalent (per silver ounce)	7.90	7.67	3%
All in sustaining Silver equivalents (per silver ounce)	8.96	8.35	7%
LOM Cost of Sales (millions)	466.3	368.1	27%
Total Direct Production Costs (per tonne)	83.82	78.29	7%

Initial and Sustaining Capital

The initial capital cost of the project is \$99 million, to be incurred over an 18 month period prior to the start of commercial production. Initial capital is 14% lower than the 2018 PFS due to reducing initial mine development and equipment, reducing the plant footprint, updating the plant flowsheet, utilizing some used plant equipment from El Cubo, modifying the tailings storage facility and moving some capex into sustaining capital through lease financing. Cumulative sustaining capital is estimated at \$60 million with over 80% spent in years 1-4 for the phased underground mine development.

Operating, Cash and All-in Sustaining Costs

The average annual operating cost per tonne is \$83.82, or about 7% higher than the 2018 PFS due mainly to higher processing costs and smelter charges. Cash cost is slightly lower, however, MAISC is higher than the 2018 PFS, mainly due to the re-allocation of initial mine development to sustaining mine development.

EBITDA and FCF

The average annual EBITDA during commercial production is \$48 million and after-tax free cash flow is \$31 million. The cumulative LOM EBITDA and after-tax free cash flow are estimated at \$476 million and \$217 million, respectively 6% and 13% higher than the 2018 PFS.

Project Sensitivities

At current spot prices, the after tax NPV and IRR are most sensitive to metal prices and least sensitive to initial capex and has approximately equal exposure to silver and gold prices.



Sensitivity Table (Ratio 100:1)

Gold Price	Silver Price	After Tax NPV	After Tax IRR
1,200	12.00	49.8	14.2%
1,400	14.00	107.8	24.2%
Base Case	Base Case	137.1	30.0%
1,600	16.00	164.5	34.9%
1,800	18.00	220.9	44.4%
2,000	20.00	277.3	53.9%

Sensitivity Table

Movement	OPEX NPV	OPEX IRR	CAPEX NPV	CAPEX IRR
-20%	173.2	36.2%	150.4	38.1%
-10%	155.2	33.1%	143.8	33.6%
Base Case	137.1	30.0%	137.1	30.0%
10%	118.9	26.7%	130.4	26.9%
20%	100.7	23.4%	123.7	24.3%

Mining Operations

Both Terronera and La Luz will be mechanized ramp access underground mines capable of producing an average of 1,600 tpd to meet the plant capacity. Mining operations were improved to defer some initial capital as well as reduce the operating cost. Four pieces of mining equipment were deemed redundant under the updated layout. Operating cost was reduced by increasing long-hole mining in both deposits and decreasing the re-handling of waste and backfill inside the mine to minimize transport cost.

Plant Flowsheet

The plant flowsheet with a 1,600 tpd capacity, consists of three stage crushing, grinding, flotation (flash, rougher, scavenger and cleaner), thickening and filtration of concentrate, tailings filter plant and a filtered-tailings (dry stack) storage facility. Plant operations were also improved to reduce capital. Construction capital was reduced by shrinking the plant footprint, reducing earthworks, eliminating the crusher building and regrind circuit, reducing the thickener size, utilizing used equipment from El Cubo and lease financing some new equipment. Operating cost was reduced by increasing plant capacity by 7%, simplifying the flowsheet, better utilizing equipment and reducing the power consumption and cost.

Surface Infrastructure

Surface infrastructure to be constructed at Terronera includes conventional gravel roads, underground haul roads, power generation plant, reclaim and fresh-water dams, waste and ore stockpiles, ancillary buildings, communications and camp facilities. The estimated power requirement for the project is 4.9MW and an additional 1MW for the camp. The power to the camp will be provided either by the national grid, CFE or as part of the project power supply which will be powered through a

liquefied natural gas generating station in tandem with a solar power plant built and maintained by a Mexican power provider.

Project Schedule

Management now plans to proceed with a Feasibility Study over the next 12 months at an estimated cost of \$1.8 million to further de-risk the project and access additional project debt financing alternatives. Once a development decision is made, the Terronera Project will take approximately 18 months to construct and commission to commercial production. These timeframes do not take into account any further disruptions to the labour market and supply chain due to the COVID 19 pandemic.

Sustainability Initiatives

The Community Relations team has been successful in mitigating risk and obtaining support from the local communities, mainly focusing on the two closest towns, Santiago de los Pinos and San Sebastian del Oeste (combined population of 1,250). The Company has completed the following initiatives:

- Social Impact Assessment - 82.6% of the people surveyed agreed with mining activities in the area and support job creation and positive economic benefits that will result from mining
- Social Management System - designed to build and maintain positive relationships in the communities, including a Social Grievance Mechanism designed to receive, investigate and respond to complaints and concerns in the local communities.
- Urban Development Project - developing a Municipal Urban Plan to facilitate the influx of employees, contractors, suppliers and other stakeholders for the life of mine, including essential infrastructure (water supply, water treatment, roads, accommodations, etc.
- Government Engagement - through agreements with local, municipal, state and federal ministries to develop cultural, educational, health, family, employment and other programs in the community
- Ejido Engagement – through agreements with the communal land association to provide access across their land during the exploration, development and exploitation

Government Permits

Endeavour Silver has in place the following government permits for the development of the Project:

- Mine and plant permits (received Q3, 2017)
- Tailings and dumps permit (received Q2, 2019)
- MIA (EIS) from SEMARNAT (Mexican Environmental Authority) previously received in Q1, 2017, is being extended.
- Additional permit applications will be filed as needed based on the Feasibility Study

Exploration Potential

Exploration at Terronera has identified several areas of interest with high discovery potential. The main Terronera and La Luz Vein orebodies are both open to a certain extent to surface and at depth. There are three main areas with significant potential to increase Mineral Resources, the deep central area, the central-north part and the shallow part of the Santa Gertrudis – El Hundido area.

The La Loma-Los Pajaros Veins located close to the footwall of the Terronera Vein have returned economic grades over mineable widths from surface rock chip sampling, however they have not yet been drilled. These vein targets range up to 500 m long by up to 3 m thick.

In the Real Alto area, more than 12 veins have been identified. Real Alto is located about 20 km at southeast of the Terronera Vein at elevations 500 to 600 m higher than the Terronera orebody. These vein structures are hosted in the same favorable volcanic rock formations and with the same structural patterns as Terronera. These vein targets range from 500 m to 1,000 m long with previous rock chip and shallow drill results returning up to 150 gpt Ag. Since these low sulfidation epithermal vein deposits occur within bonanza zones with well-defined elevation controls, deeper drilling is needed to test the Real Alto targets down to the elevations of the Terronera and La Luz orebodies.

Opportunities to Enhance Value

Several opportunities to enhance value for the Terronera Project have been identified and will be further evaluated during the Feasibility Study. These include:

- **Expand Property Size** – complete the process of applying for new concessions and acquiring existing third-party concessions covering mineralized areas proximal to the current properties
- **Expand Mineral Resources and Reserves** – plan additional exploration drilling, both within the current resource footprint to convert Inferred Mineral Resources to Probable Reserves, and to test multiple other veins such as the La Loma-Los Pajaros and Real Alto Vein systems
- **Expand Mine and Plant** – evaluate the potential to expand to 2,000 tpd subject to expanding the Mineral Reserves
- **Optimize Mining Method** – with more geotechnical drilling, additional long hole mining may be possible, current model assumes a combination of long hole mining (in thicker zones with stronger wall-rocks), cut and fill mining (in narrower zones with weaker wall-rocks) and resuing (in very narrow high grade veins)
- **Optimize Ore Transport** – evaluate an automated underground rail haulage system to haul ore to the plant which would benefit both haulage costs and ventilation requirements
- **Optimize Mining Equipment** – evaluate electric equipment instead of diesel which would benefit both fuel costs and ventilation requirements
- **Optimize Metallurgical Recoveries** – continue to evaluate grind sizes vs flotation stages vs metal recovery
- **Reduce Operating Costs** – Evaluate pre-concentration technologies to reduce the unit operating costs



- **Optimize Tailings Transport** – evaluate alternatives such as conveyor or pipeline vs trucks to move tailings from the plant to the dry stack storage facility
- **Optimize Power Capacity** – re-evaluate power needs once other power applications are optimized

Next Steps

Endeavour plans to complete a Feasibility Study (FS) for the Terronera Project with some activities as overlapping instead of sequenced. These include:

- **Feasibility Study** - Consultant bidding and selection process is already underway and scheduled to conclude in August. The Feasibility Study is estimated to take 9 to 12 months.
- **EPC Process** - Endeavour has defined its EPC strategy and initiated contacts with potential contractors to commence the process of contractor bidding and selection process for the project engineering, procurement and construction.
- **Government Permitting** – some permits such as mine access ramp portals, temporary waste rock storage areas and construction camp will be modified now the PFS is concluded, but these are not expected to delay the construction phase
- **Long Lead Items** – Endeavour has received and warehoused the main ball mill components and will evaluate the possibility to commence early underground development of the main three km long haulage-way to access the main Terronera orebody
- **Project Financing** – continue to evaluate staged financing, with current cash and ATM to fund the FS and long lead items, and debt, convertible, equity and other alternatives to fund the initial capex

Video Webcast and Q&A – 2020 PFS Webinar

A video webcast to discuss the updated economics for the 2020 PFS is scheduled for Tuesday July 14, 2020,

at 10:00 a.m. Pacific time (1:00 p.m. Eastern time). Those interested in participating, are invited to join online: <https://www.edrsilver.com/terroneraPFS2020webinar>

A Question and Answer period will follow. Participants can submit a question through the webcast webform via “Submit a Question” button. The PowerPoint presentation will also be available ([here](#)) or on the homepage of the Company’s website and under the Investor Relations, Events and Webcast sections. The webcast will also be archived for replay.

Qualified Persons and QA/QC

Godfrey Walton, M.Sc., P.Geo., Endeavour’s President and COO, is the Qualified Person who reviewed and approved this news release and supervised the engineering work supporting the 2020 NI 43-101 Technical Report, Prefeasibility Study for the Terronera Project. The PFS team Ausenco Engineering Canada Inc - Robin Kalanchey, P.Eng., P&E Mining Consulting - Eugene Puritch, P.Eng. FEC. CET, David Burga P.Geo., Yungang Wu, P.Geo., D. Gregory Robinson P. Eng., Wood Engineering - Humberto Preciado, P.E., Eugenio Iasillo P.E., JDS Mining - Mike Levy P.E., P.Eng., Moose Mountain – Mike Petrina P.Eng., are the Independent



Qualified Persons for the 2020 PFS who have reviewed and approved the technical contents of this news release.

A Quality Control sampling program of reference standards, blanks and duplicates is used to monitor the integrity of all assay results. All samples are split at the local field office and shipped to ALS-Chemex Labs, where they are dried, crushed, split and 50 gram pulp samples are prepared for analysis. Gold is determined by fire assay with an atomic absorption (AA) finish and silver by aqua regia digestion and ICP finish, over-limits by fire assay and gravimetric finish.

About Endeavour Silver – Endeavour Silver Corp. is a mid-tier precious metals mining company that owns and operates three high-grade, underground, silver-gold mines in Mexico. Endeavour is currently advancing the Terronera Mine Project towards a development decision and exploring its portfolio of exploration and development projects in Mexico and Chile to facilitate its goal to become a premier senior silver producer. Our philosophy of corporate social integrity creates value for all stakeholders.

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Cautionary Note Regarding 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 applicable Canadian securities legislation. Such forward-looking statements and information herein include but are not limited to statements regarding Endeavour’s anticipated performance in 2020 and future years including statements regarding the economics analysis and production estimates in the 2020 PFS, changes in mining operations and production levels, the timing and results of various activities and the impact of the COVID 19 pandemic on operations. The Company does not intend to and does not assume any obligation to update such forward-looking statements or information, other than as required by applicable law.

Forward-looking statements or information involve known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, production levels, performance or achievements of Endeavour and its operations to be materially different from those expressed or implied by such statements. Such factors include, among others, the reliability of the Terronera economic analysis and production estimates for Terronera, the ultimate impact of the COVID 19 pandemic on operations and projects and results, changes in production timelines and costs guidance, national and local governments, legislation, taxation, controls, regulations and political or economic developments in Canada and

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Mexico; financial risks due to precious metals prices, operating or technical difficulties in mineral exploration, development and mining activities; risks and hazards of mineral exploration, development and mining; the speculative nature of mineral exploration and development, risks in obtaining necessary licenses and permits, and challenges to the Company's title to properties; as well as those factors described in the section "risk factors" contained in the Company's most recent form 40F/Annual Information Form filed with the S.E.C. and Canadian securities regulatory authorities.

Forward-looking statements are based on assumptions management believes to be reasonable, including but not limited to: the ability to achieve the revenue, costs and production estimates in the Terronera 2020 PFS, the continued operation of the Company's mining operations, no material adverse change in the market price of commodities, mining operations will operate and the mining products will be completed in accordance with management's expectations and achieve their stated production outcomes, no material impact of the COVID 19 pandemic on the Terronera development plans provided for in the 2020 PFS, and such other assumptions and factors as set out herein. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements or information, there may be other factors that cause results to be materially different from those anticipated, described, estimated, assessed or intended. There can be no assurance that any forward-looking statements or information will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements or information. Accordingly, readers should not place undue reliance on forward-looking statements or information.