

January 22, 2019

SOLITARIO RECEIVES CDN \$600,000 FOR ITS ROYALTIES AND PROVIDES UPDATE ON FLORIDA CANYON ACTIVITIES

Denver, Colorado: Solitario Zinc Corp. ("Solitario") (NYSE American: XPL; TSX: SLR) is pleased to announce that it has sold two royalties and an option to purchase a third royalty to SilverStream SEZC ("SilverStream"), a private Cayman Island royalty and streaming company. Solitario will receive CDN \$250,000 in cash and CDN \$350,000 in a convertible note as payment for the royalties and option. The royalties cover the 125,000-acre polymetallic Pedra Branca palladium, platinum, gold, nickel, cobalt and chrome project in Brazil and Solitario's 3,880-acre Mexico royalty portfolio. The purchase option covers Solitario's 16,500-acre Montana royalty portfolio.

Solitario's Royalty Properties

The centerpiece royalty is the 1% NSR royalty on the Pedra Branca project owned by Jangada Mines, a London-based company that is actively advancing the project. The property has a JORC compliant resource. The Montana royalties cover high-potential geologic terrain for copper-gold mineralization and the Mexico royalties include prospective areas for precious and base metal mineralization in historic mining districts of Mexico.

Solitario Royalty Properties				
Property Name/	Size-Acres /	Commodity	NSR-	Resource
Manager	Properties		Royalty	
Pedra Branca	125,000	Platinum-	1%	Yes-JORC
Jangada Mines	1 property	palladium-nickel -		compliant
		cobalt-chrome		
Montana	16,500	Au, Cu	1.5%	None
Private Party	11 properties			
Mexico	3,880	Ag-Pb-Zn-Au	1%	None
Private Party	7 properties			

The CDN \$350,000 convertible note has a one-year term with a 5% per annum simple interest rate. The note is convertible into SilverStream stock should SilverStream complete an IPO before the end of the one-year term.

Chris Herald, President and Chief Executive Officer of Solitario, commented, "These royalty properties represented non-core assets of Solitario. Selling these royalties to SilverStream allowed Solitario to monetize their value and provide Solitario equity exposure to a much broader portfolio of royalty and streaming properties currently held by SilverStream."

Kyle Floyd, Chief Executive Officer of SilverStream, added, "We are pleased to partner with Solitario in delivering a successful outcome to its shareholders; while allowing SilverStream to grow its royalty and streaming interests by acquiring a very promising royalty portfolio."

Florida Canyon Update

Soliltario's partner, Nexa Resources (("Nexa") NYSE: NEXA; TSX: NEXA) initiated drilling with two core rigs at Florida Canyon in early November. This first phase of drilling ended in late-December upon the onset of the rainy season in the project area when helicopter supported drilling is no longer operationally efficient. Nexa is planning on resuming drilling at the end of the rainy season, expected sometime in April. At that time, Nexa plans to accelerate drilling operations utilizing four core rigs operating simultaneously to complete the remaining 37 drill holes. Four holes have been completed to planned target depth and a fifth hole was abandoned due to technical drilling problems. Total meterage completed was 2,203 meters. All holes were located at the northeastern margin of the previous drilling footprint in the Karen Milagros zone. Assays are expected sometime in February.

Chris Herald, President and Chief Executive Officer of Solitario, commented, "We appreciate Nexa's effort to begin the drilling program prior to the rainy season, and are pleased with the progress made to date. We look forward to completion of the entire program during 2019. We are also extremely pleased that Nexa is accelerating the drilling program by adding drill rigs when operations resume in the spring."

About Solitario

Solitario is an emerging zinc exploration and development company traded on the NYSE American ("XPL") and on the Toronto Stock Exchange ("SLR"). Solitario holds 50% joint venture interest in the high-grade, open-pitable Lik zinc deposit in Alaska and a 39% joint venture interest (Nexa Resources holds the remaining 61% interest) on the high-grade Florida Canyon zinc project in Peru. Solitario also holds a 7.6% equity interest in Vendetta Mining. Solitario's Management and Directors hold approximately 9.3% (excluding options) of the Company's 58.4 million shares outstanding. Solitario's cash balance and marketable securities stand at approximately US\$12.0 million. Additional information about Solitario is available online at www.solitariozinc.com

FOR MORE INFORMATION ABOUT SOLITARIO, CONTACT:

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About SilverStream

SilverStream is a strategic metals streaming and royalty business with investments across Australasia, North and South America.

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Cautionary Statement Regarding Forward Looking Information

This press release contains forward-looking statements within the meaning of the U.S. Securities Act of 1933 and the U.S. Securities Exchange Act of 1934, and as defined in the United States Private Securities Litigation Reform Act of 1995 (and the equivalent under Canadian securities laws), that are intended to be covered by the safe harbor created by such sections. Forward-looking statements are statements that are not historical fact. They are based on the beliefs, estimates and opinions of the Company's management on the date the statements are made and address activities, events or developments that Solitario expects or anticipates will or may occur in the future, and are based on current expectations and assumptions. Forward-looking statements involve a number of risks and uncertainties. Consequently, there can be no assurances that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Such forwardlooking statements include, without limitation, statements regarding the Company's expectation of the projected timing and outcome of engineering studies; expectations regarding the receipt of all necessary permits and approvals to implement a mining plan, if any, at Lik or Florida Canyon; the potential for confirming, upgrading and expanding zinc, lead and silver mineralized material; future operating and capital cost estimates may indicate that the stated resources may not be economic; estimates of zinc, lead and silver grades of resources provided are predicted and actual mining grade could be substantially lower; estimates of recovery rates for could be lower than estimated for establishing the cutoff grade; and other statements that are not historical facts could vary significantly from assumptions made in the PEA. Although Solitario management believes that its expectations are based on reasonable assumptions, it can give no assurance that these expectations will prove correct. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, among others, risks relating to risks that Solitario's and its joint venture partners' exploration and property advancement efforts will not be successful; risks relating to fluctuations in the price of zinc, lead and silver; the inherently hazardous nature of mining-related activities; uncertainties concerning reserve and resource estimates; availability of outside contractors, and other activities; uncertainties relating to obtaining approvals and permits from governmental regulatory authorities; the possibility that environmental laws and regulations will change over time and become even more restrictive; and availability and timing of capital for financing the Company's exploration and development activities, including uncertainty of being able to raise capital on favorable terms or at all; as well as those factors discussed in Solitario's filings with the U.S. Securities and Exchange Commission (the "SEC") including Solitario's latest Annual Report on Form 10-K and its other SEC filings (and Canadian filings) including, without limitation, its latest Quarterly Report on Form 10-Q. The Company does not intend to publicly update any forward-looking statements, whether as a result of new information, future events, or otherwise, except as may be required under applicable securities laws.