



Solitario Releases Year-End Letter to Shareholders

DENVER, CO – January 27, 2020 - **Solitario Zinc Corp.** (“Solitario”) (NYSE American: **XPL**; TSX: **SLR**) provides its 2019 Year-End Letter to Shareholders reviewing the results of its 2019 project and corporate activities.

Dear Shareholders:

Rather than wait until the release of our year-end report, I am pleased to present to you a review of Solitario’s 2019 achievements. First of all, I want to thank all of our shareholders for their continued support and also acknowledge the hard work of our two joint venture partners, Nexa Resources S.A. (NYSE: NEXA; TSX: NEXA) (“Nexa”) the fourth largest zinc producer in the world; and Teck American Incorporated (“Teck”), a wholly owned subsidiary of Teck Resources Limited (TSX: TECK.A and TECK.B, NYSE: TECK), the world’s third largest zinc producer.

Florida Canyon Zinc Project (39% Solitario – 61% Nexa), Peru

During 2019, the largest surface drilling program in project history was completed by Solitario’s partner, Nexa, on our high-grade Florida Canyon zinc project. Results of the 2019 Florida Canyon drilling program were exceptional. A total of 17,036 meters were drilled in 39 core holes, however, two holes did not reach target depth due to drilling difficulties. The 14 best drill holes intersected the following significant intercepts of zinc equivalent (“ZnEq”) mineralization.

Drill Hole Number	Thickness (meters)	ZnEq (%)
PEBGD-03	1.3	56.9
PEBGD-04	1.3	40.6
PEBGD-08	4.4	18.3
PEBGD-10	48.9	6.2
including	17.5	13.7
PEBGD-15	12.4	15.1
PEBGD-24	4.1	19.5
PEBGD-25	6.3	8.2
and	8.8	6.9
PEBGD-30	6.7	18.7
PEBGD-31	7.4	13.1
PEBGD-32	9.3	26.5
PEBGD-33	9.9	7.7
PEBGD-36	6.1	25.6
and	1.8	37.1
PEBGD-38	9.7	23.2
PEBGD-39	3.3	47.1

***Zn-Eq was calculated using the following price assumptions: Zn=\$1.10/lb., Pb=\$0.91lb., Ag=\$16.50/oz.
Reported intervals are estimated to be at least 80% of the true thickness
Numbers in this table may not add exactly as numbers have been rounded to the nearest decimal**

We achieved our three most important objectives at Florida Canyon: 1) expanding the near-vertical San Jorge body to the south and its associated high-grade horizontal mantos to the east; 2) discovering and partially defining the 1021 Zone over a minimum strike length of 800 meters (a long section of the 1021 Zone, can be seen [here](#)); and, 3) extending a number of horizontal mantos in the Karen-Milagros area. Please see prior news releases for a listing of all drilling results from the 2019 drilling program at Florida Canyon. Twenty-eight (28) drill holes, or 72%, intersected significant mineralization. This was clearly an outstanding outcome.

The 2019 drilling program also indicated that significant expansion potential still exists within the drilling footprint of the Florida Canyon mineralized system and along trend in areas outside of the footprint. Importantly, several strong surface occurrences of high-grade zinc were discovered approximately four-to-five kilometers south of the current drill pattern. We believe this completely undrilled corridor is very fertile ground for expanding the Florida Canyon high-grade zinc system. A conceptual cross section showing the strong relationship of these surface showings to the geology of defined resources is shown [here](#).

Drill hole information contained within this release is reported under Nexa's quality control program reviewed by Mr. Walt Hunt, COO for Solitario Zinc Corp., who is a qualified person as defined by National Instrument 43-101. Samples are derived from 50% splits of HQ and NQ (2.5 and 1.9 inch) diameter core. Samples are shipped via secured third-party land transportation companies and analyzed by ALS Global Inc., in Lima, Peru.

Lik Zinc Project (50% Solitario – 50% Teck), Alaska

On our high-grade Lik zinc project in Alaska, Solitario's partner, Teck, completed its second year of surface exploration to identify new drilling targets. The program is guided by Teck's extensive experience in the Red Dog district. Activities and objectives for the 2019 Lik exploration program included:

- Improve geologic and structural interpretations through relogging of 20 previously drilled core holes.
- Follow-up geologic mapping and geochemical sampling at the newly identified North Area Prospect.
- Multi-element continuous scan of historic core with XRF scanning technology to further define the Lik deposit geochemical signature and characterize its distal geochemical halo to potentially vector in on new drill targets based on similarities seen in other deposits in the district.
- Develop new cross-sections through reinterpretation of stratigraphy and structure.

Based upon our review of the preliminary results of the work performed during 2019, we are very excited about the future potential for new discoveries at Lik. Teck is currently completing its final analysis of the technical data gathered during 2019.

Corporate and Zinc Market Update

Solitario undertook several initiatives to reduce G & A costs and monetize non-core assets during 2019 and the latter part of 2018. Moving forward, reductions in G & A costs are anticipated to result in savings of approximately \$250,000 per year over 2017 level costs. This was mainly accomplished through staff reductions, employee benefit reductions and reduced consulting costs. We also sold non-producing royalty positions in three exploration properties during 2019. Solitario received CDN \$250,000 in cash and CDN \$350,000 in a convertible note as payment for the royalties.

Importantly, with the recent signing of the US-China trade agreement, it appears that the zinc market is improving as we move into 2020. Combined Shanghai, LME and U.S. exchange inventories of zinc are down to a critically low level of just several days of worldwide zinc consumption. This inventory level is the lowest on record and lower than that prior to the 2006-2007 super cycle when the price for zinc exceeded \$2.00 per pound. We believe that zinc price has plenty of room for appreciation, and if that were to occur, Solitario is well poised to benefit.

2020 Outlook

With our healthy balance sheet, improving zinc markets and strong joint venture partnerships, we look forward to the coming year with optimism. Our partners, Nexa and Teck, with our input, are currently finalizing 2020 work plans and budgets. We look forward to releasing the details of these programs in the upcoming weeks. As always, we will strive to explore new opportunities to add value for all Solitario stakeholders.

Sincerely,

Chris Herald
President and CEO
Solitario Zinc Corp.

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-pit table 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 9.9% equity interest in Vendetta Mining. Solitario’s Management and Directors hold approximately 9.3% (excluding options) of the Company’s 58.1 million shares outstanding. Solitario’s cash balance and marketable securities stand at approximately US\$8.4 million. Additional information about Solitario is available online at www.solitariozinc.com

FOR MORE INFORMATION ABOUT SOLITARIO, CONTACT:

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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 forward-looking 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.