



Florida Canyon Zinc Project, Peru



Lik Zinc Project, Alaska

Solitario Zinc Corp.

Solitario Zinc Corp. is a zinc focused exploration company engaging in the acquisition, exploration, and development of zinc properties in safe jurisdictions in North and South America. Following the purchase of Zazu Metals in 2017, Solitario grew from a company with just over 361 million pounds of attributable zinc-equivalent in the measured and indicated resource category to one with over 2.76 billion pounds of attributable zinc-equivalent. The inferred resource category increased from approximately 970 million pounds of attributable zinc-equivalent to 1.7 billion pounds of attributable zinc-equivalent.

Solitario now has significant joint venture interests in two large, high-grade zinc development projects with world-class partners:

- Florida Canyon Zinc Project in Peru is a high-grade development asset held jointly with Nexa Resources, the world's fourth largest zinc producer.
- Lik Zinc Project represents a large-tonnage, high-grade, surface mine-able development project in Alaska in partnership with Teck Resources, the world's third largest zinc miner.

Solitario's consolidated position in these two assets reduces development risk as both projects are located in favorable jurisdictions with experienced zinc-producing joint venture partners, increasing the Company's exploration potential and reducing shareholder risk by diversifying Solitario's asset base.

Consolidated Resources

Category	100% Basis	Tonnes (millions)	Grade			Contained Zn Eq. Pounds (millions)		
			Zn (%)	Pb (%)	Ag (g/t)	Zn Eq* (%)	100% Basis	Solitario Attributable
Indicated								
Lik		18.11	8.10	2.72	50.20	11.37	4,542	2,271
Florida Canyon		2.78	12.77	1.78	18.20	14.62	896	349
Total		20.89	8.72	2.59	45.94	11.80	5,438	2,620
Inferred								
Lik		5.34	8.66	2.69	38.00	11.66	1,373	687
Florida Canyon		9.07	10.87	1.21	12.20	12.12	2,425	946
Total		14.41	10.05	1.76	21.76	11.95	3,798	1,632

* Price Assumptions for Zinc-Equivalent Grade: Zinc \$1.20/lb; Lead \$1.00/lb; Silver \$16.50/oz.
 ** Solitario attributable interests: Lik-50%; Florida Canyon-39%

What Solitario Zinc Corp. Offers the Resource Investor

- Joint venture interest in two large, high-grade zinc projects:
 - Florida Canyon (Peru) held jointly with Nexa
 - Lik (Alaska) in partnership with Teck Resources
- April 2019 major drill program at Florida Canyon
- Strong operating partners = lower project development risks and costs
- Robust balance sheet with ≈\$12 million in cash and securities
- Strong management/director equity ownership at 9.3%, excluding options

Stock Exchange Listings:	NYSE American: XPL TSX: SLR
Issued and Outstanding:	58,169,366
Options:	4,373,000
Warrants:	0
Fully Diluted:	62,542,366
Cash Marketable Securities:	US ≈\$12 million
52-week High Low:	XPL: US \$0.53 US \$0.19
1-year XPL Stock Chart (in US \$):	2/25/2019



Officers:

Christopher E. Herald
CEO & President

James R. Maronick
Chief Financial Officer

Walter H. Hunt
Chief Operating Officer

Directors:

Brian Labadie
Chairman of the Board

Gil Atzman
Joshua Crumb

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Florida Canyon Zinc Project: (PERU)

Florida Canyon is a high grade (12.7% Zn-Eq), advanced exploration project joint ventured with Nexa Resources, one of the largest zinc producers in Peru. To date, our partners have spent over \$60 million on the project including 487 drill holes with 117,380 meters of drilling. Solitario's 30% is fully carried through feasibility and is financed to production with payback through 50% of cash flow. In August 2017 a Preliminary Economic Assessment ("PEA") on Florida Canyon was released revealing robust economics.

In April 2019 Solitario's partner plans to utilize four core rigs operating simultaneously to complete a total of 40 drill holes. Drilling will focus on three target areas:

1. Extensions to the San Jorge zone that displays significant high-grade vertical feeder zones flanked by multiple thick horizontal mantos zones;
2. Testing a new zone that may be similar to San Jorge in size and quality of zinc mineralization in the north-central part of Florida Canyon. A previous drill hole intersected approximately 90 meters of 5% zinc equivalent;
3. Testing extensions of the high-grade Karen-Milagro mantos zones.

Lik Zinc Project: (ALASKA)

Lik is a large tonnage, high-grade, open-pit zinc deposit with significant underground expansion potential. The property is comprised of 47 contiguous state mining claims covering ≈2,225 hectares (6,000 acres). The project is a 50/50 joint venture with Teck Resources located approximately 22 kilometers from Teck's Red Dog Mine, one of the largest and lowest cost zinc mines in the world. Solitario is the project operator of Lik. A PEA was completed in 2014 on the Lik deposit, revealing an impressive IRR. The recent work program on Lik involved geologic mapping, a geophysical program, core re-logging, camp rehabilitation and assessment of previous environmental work.

The 2019 Lik exploration program will be jointly funded by Teck and Solitario and is expected to begin in April and should be completed by September. Teck will manage the 2019 program.

Objectives for the 2019 Lik exploration program include; follow-up geologic mapping and geochemical sampling in the newly identified North Area Prospect; multi-element scanning technology to further define the Lik deposit's geochemical signature and geochemical halo to potentially vector in on new drill targets; selective relogging of historic drill core from the Lik deposit to better understand its geologic characteristics.

NPV @ 8%-discount rate (after-tax)	\$198 million
Operating Margin (EBITDA)	\$958 million
Internal Rate of Return (after-tax)	24.7%
Payback	2.6 years
Initial Capital (incl. \$40 million contingency)	\$214 million
Sustaining Capital	\$83 million
Mine Life / Operating Rate	12.5 years / 2,500 tonnes/day
Average Annual Payable Metal Production	111.7 million lbs. payable zinc
	12.6 million lbs. payable lead
	160 thousand oz. payable silver
Direct and Indirect Cash Costs	\$64.15/tonne or \$0.51/Zn-Eq payable lb.
All-in-Cost	\$90.64/tonne or \$0.73/Zn-Eq payable lb.

Zinc Price Sensitivity

Zn Price	\$1.00		\$1.10		\$1.20		\$1.30	
	Pre-tax	After-tax	Pre-tax	After-tax	Pre-tax	After Tax	Pre-tax	After Tax
FCF (\$ millions)	408	267	535	352	662	437	788	521
NPV 8% (\$ millions)	187	96	263	147	339	198	414	248
IRR	24.5%	17.0%	29.7%	21.0%	34.5%	24.7%	38.9%	28.1%

Pb: \$1.00; Ag: \$16.50



Florida Canyon Zinc Project, Peru



Lik Zinc Project, Alaska

Location	Cut-off % Pb + Zn	Indicated Resources				Inferred Resources			
		M tons	% Zn	% Pb	g/t Ag	M tons	% Zn	% Pb	g/t Ag
Potential Open Pit									
Lik South	5%	16.85	8.04	2.70	50.1	0.74	7.73	1.94	13.4
Lik North	5%	0.44	10.03	2.77	59.0	2.13	8.88	2.94	45.8
Sub-Total		17.29	8.09	2.70	50.3	2.87	8.59	2.68	37.5
Additional Underground Resource									
Lik South	7%	0.69	8.04	3.15	51.0	0.51	6.97	1.59	11.3
Lik North	7%	0.13	8.93	2.93	37.5	1.96	9.22	2.99	45.8
Sub-Total		0.82	8.18	3.12	48.9	2.47	8.76	2.70	38.7
Total		18.11	8.10	2.72	50.2	5.34	8.66	2.69	38.0
Zinc Price Sensitivity		US\$1.00/lb	US\$1.10/lb	US\$1.20/lb	US\$1.30/lb				
After Tax IRR		14.4	20.0	25.2	30.0				
After Tax Payback (yrs)		4.5	3.4	2.8	2.4				
After Tax NPV @ 8%		US\$99M	US\$195M	US\$291M	US\$386M				

This publication includes certain "Forward-Looking Statements" within the meaning of section 21E of the United States Securities Exchange Act of 1934, as amended. All statements, other than statements of historical fact, included herein, including without limitation, statements regarding potential mineralization and reserves, exploration results and future plans and objectives of Solitario, are forward-looking statements that involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Development of Solitario's properties are subject to the success of exploration, completion and implementation of an economically viable mining plan, obtaining the necessary permits and approvals from various regulatory authorities, compliance with operating parameters established by such authorities and political risks such as higher tax and royalty rates, foreign ownership controls and our ability to finance in countries that may become politically unstable. Important factors that could cause actual results to differ materially from Solitario's expectations are disclosed under the heading "Risk Factors" and elsewhere in Solitario's documents filed from time to time with Canadian Securities Commissions, the United States Securities and Exchange Commission and other regulatory authorities. Cautionary Note to U.S. Investors concerning estimates of Resources: This publication uses the terms "Measured, Indicated and Inferred Resources." The Company advises U.S. investors that while these terms are recognized and required by Canadian regulations, the SEC does not recognize the terms. U.S. investors are cautioned not to assume that any part or all of Measured or Indicated Mineral Resources will ever be converted into Reserves. 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 an Inferred Mineral Resource will ever be upgraded to a higher category. Under Canadian rules, estimates of Inferred Mineral Resources may not form the basis of feasibility or pre-feasibility studies, except in rare cases. U.S. investors are cautioned not to assume that any part or all of a measured, indicated or inferred resource exists, or is economically or legally minable. This document (including drill hole information and mineral reserve and resource numbers) has been reviewed for accuracy by Mr. Walt Hunt, COO for Solitario Exploration & Royalty Corp., who is a qualified person as defined by National Instrument 43-101.