



October 20, 2014

**SOLITARIO ANNOUNCES UPDATED MT. HAMILTON FEASIBILITY STUDY
SIGNIFICANTLY HIGHER PRODUCTION, GRADE AND INCREASED RESOURCES**

Denver, Colorado: Solitario Exploration & Royalty Corp. (“Solitario;” NYSE MKT: **XPL**; TSX: **SLR**) and Ely Gold & Minerals (“Ely Gold;” TSX.V: **ELY**) are pleased to announce the results of an updated Mt. Hamilton Feasibility Study (“2014 FS”) that focused on optimizing gold production during the early mine life to enhance project economics. Recent drilling, engineering and detailed mine planning have facilitated significantly higher annual gold production for the first four years, higher reserve grade and increased resources for the project compared to the original Mount Hamilton Feasibility Study completed in February 2012 (“2012 FS”).

2014 Mt Hamilton Feasibility Study Base Case (Gold: \$1,300; Silver: \$20.00):

Production Rate/Mine Life: 10,000 tons ore per day (350 days/yr.) / 7 years
Average Gold Recovery: 76.2% (70% of recoverable gold in first 30 days of processing)
Average Silver Recovery: 39%
Life of mine stripping ratio: 2.47:1.0 (waste:ore (includes stockpiled ore))
Initial Capital Cost: \$91.7 M (includes \$9.0 M contingency)
Sustaining Capital: \$29.8 M (includes \$2.4 M contingency and \$10.1 M end-of-mine closure costs)
Working Capital: \$8.4 M
Underlying NSR-Royalty: 3.4%
Cash Costs per Gold-Equivalent (“AuEq”) Ounce* Recovered: \$558
Avg. Annual AuEq Production: 73,000 oz (during 6.1 year active mining period)
Avg. Annual Gold Production: 68,600 ounces
Avg. Annual Silver Production: 279,400 oz.

*Gold equivalent (AuEq) was based on recovered payable metal with an effective ratio of 65:1Ag:Au.

Additional Highlights:

- Average annual production for the first four years is approximately 81,000 AuEq oz. compared to approximately 51,600 oz. forecast in the 2012 FS, an increase of 57%.
- Life-of-mine total cash costs of \$558 per AuEq oz. (includes all royalties and Nevada Net Profits Tax and does not use silver as a credit). Low operating costs are mainly due to the high reserve gold grade, strong gold recoveries and short haulage distances.
- All-in sustaining costs of \$833 per AuEq oz.
- Proven & Probable Reserves contain 545,400 oz. of gold and 4,459,600 ounces of silver.
- Outstanding potential to upgrade a significant portion of Indicated and Inferred Resources that are currently constrained by the capacity of the permitted heap leach pad.
- At \$1,300/oz. gold and \$20.00 silver prices, the IRR is 26% (after tax) and 35.4% (pre-tax) with a 2.9 year payback of the projected \$91.7 million initial capex.

High reserve grade is the primary driver for Mt. Hamilton’s low total cash cost of \$558 per ounce of gold-equivalent produced. The low cash cost has been achieved in the 2014 FS using an

improved mine plan offset by more conservative assumptions for metal prices, costs and operating inputs compared to the 2012 FS.

The Mt. Hamilton gold project will be an open pit mining operation with heap leach processing. Mining will occur in both the Centennial and Seligman ore deposits. Processing is straight-forward with two-stage crushing to minus ¾-inch, no agglomeration and relatively rapid initial gold leach rates, followed by conventional ADR (adsorption-desorption-recovery) metal extraction. The project also incorporates several innovative design concepts including the use of a vertical ore pass and underground conveying system which minimizes environmental impacts while providing operational efficiencies and safer operating conditions.

Chris Herald, President and CEO of Solitario stated, “We are very pleased with the outcome of the 2014 FS. Cash flow in the initial years is substantially increased, resulting in enhanced project economics. Mt. Hamilton represents one of the highest grade, lowest cost, open pit heap leach gold projects in Nevada. The results of the updated 2014 FS put the project in a stronger position to complete project financing. We have been very encouraged with our discussions to date with various financial institutions, and we are taking a measured approach to assure the best possible outcome.”

Added Mr. Herald, “Equally important to the increased annual production rate and low cash costs are the additional gold ounces that have been defined in the \$1,300 resource pit. Reserves were capped at 22.5 million tons, as that is the maximum tonnage capacity of our currently permitted heap leach site situated on our private land holdings. Approximately 182,000 ounces of Indicated and 119,000 Inferred gold ounces in the \$1,300 resource pit are not included in the current reserves. With a successful drilling program and the permitting of an expanded heap leach facility, there is an opportunity to upgrade a portion of these gold ounces from Indicated and Inferred Resources to Proven and Probable Reserves, improving the project economics and extending cash flow over a longer mine life.”

Mineral Reserves were conservatively estimated from a pit design based on \$840/oz. gold and \$13/oz. silver prices. Multiple pit scenarios were evaluated under a range of gold prices to determine the most favorable pit design for both optimal resource extraction and cash flow.

**Mineral Reserve Statement, Mt. Hamilton Gold Project,
White Pine County, Nevada, SRK Consulting (U.S.), Inc.**

Reserve Category	Tons	Gold Grade		Silver Grade		Contained Metal (1,000's of ounces)	
	(000's)	oz/t	g/tonne	oz/t	g/tonne	Gold	Silver
Proven	1,240	0.029	1.01	0.198	6.80	36.6	245.8
Probable	21,260	0.024	0.82	0.198	6.80	508.8	4213.8
Proven & Probable	22,500	0.024	0.83	0.198	6.80	545.4	4459.6

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- Reserves are reported using a cutoff grade (“COG”) of 0.006 oz/t Au;
- The COG was based on a gold price of US\$1,300/oz and a silver price of US\$20/oz;
- The COG was calculated at an average recovery of 76% for Au and 39% for Ag;
- Average recovery for gold was calculated from a recovered grade item modeled for each model block based on cyanide soluble and total gold grades;
- Cutoff for each block was determined using this recovered grade item;
- Metal grades reported are diluted; and
- Some numbers may not add due to rounding.

“The Environmental Assessment process was completed in September and the Mt Hamilton Mine is now moving to the development phase. The increase in the Measured and Indicated Resources indicate that the Mt. Hamilton mine life could easily exceed ten years and is not dependent on higher gold prices. In addition, the Wheeler Ridge area is now fully permitted for exploration and is a significant untested area.” stated Trey Wasser, Ely Gold’s President and CEO. “All of our previous drill programs have been very successful in upgrading existing and adding new resources. Once constructed, the Mt. Hamilton mine should be producing gold for many years to come.”

Mineral Resource Statement, Mt. Hamilton Gold Project, White Pine County, Nevada, SRK Consulting (U.S.), Inc. August 2014

Resource Category	Reserve	Au Grade	Ag Grade	AuEq Grade		Contained Oz (1,000’s)		
	k-tons	oz/ton	oz/ton	oz/ton	g/tonne	Au	Ag	AuEq
Measured	1,427	0.030	0.209	0.033	1.13	42	299	47
Indicated	32,283	0.021	0.194	0.024	0.83	685	6,271	790
Meas. + Ind.	33,710	0.022	0.195	0.025	0.84	727	6,569	828
Inferred	6,721	0.018	0.171	0.020	0.67	119	1,153	136

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- Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that any part of the Mineral Resources estimated will be converted into Mineral Reserves estimate;
- Resources stated as contained within a potentially economically minable open pit; pit optimization was based on assumed gold and silver prices of US\$1,300/oz and US\$19.60/oz, respectively, block-by-block modeled recovery averaging 76.3% for Au and 39% for Ag, an ore mining cost of US\$2.06/t for the Seligman deposit, an ore mining cost of US\$1.64/t for the Centennial deposit and an ore processing cost of US\$4.95/t; west pit slopes 45°, east pit slopes of 50°;
- Resources are reported using a 0.006 oz/t contained gold cutoff grade;
- AuEq was calculated using a Ag:Au ratio of 65:1;
- Numbers in the table have been rounded to reflect the accuracy of the estimate and may not sum due to rounding.

Project Economics

All currency figures in U.S. \$’s; Economic base case in bold; M=millions

Item	Pre-Tax			After Tax (Federal=35%, State=5%)		
Gold US\$/oz.	\$1,200	\$1,300	\$1,400	\$1,200	\$1,300	\$1,400
Silver US\$/oz.	18.50	20.00	21.50	18.50	20.00	21.50
Cash Flow (US\$M)	141.9	184.8	227.6	89.4	115.9	142.3
NPV @ 8% (US\$M)	76.6	107.0	137.3	41.8	60.8	79.9
NPV @ 5% (US\$M)	97.6	131.8	166.2	57.0	78.5	99.9
IRR	28.4	34.5	42.1	20.6	26.0	31.1
Payback (Years)	3.0	2.7	2.5	3.1	2.9	2.7

The 2014 Feasibility Study is available on both [Solitario’s](#) and Ely Gold’s web sites and will be filed today on SEDAR and furnished on EDGAR under the title “*NI 43-101 Technical Report, Feasibility Study, Mt. Hamilton Gold and Silver Project, Centennial Deposit and Seligman Deposit, White Pine County, Nevada.*” The 2014 Feasibility Study was prepared by SRK Consulting (U.S.), Inc., an independent and internationally recognized mining engineering firm. The Feasibility Study provides Mineral Resource and Mineral Reserve estimates, and a classification of resources and reserves in accordance with the Canadian Institute of Mining,

Metallurgy and Petroleum Standards on Mineral Resources and Reserves: Definitions and Guidelines, November 27, 2010 (CIM). It also meets the standards of the U.S. Securities and Exchange Commission Industry Guide 7 for estimating and reporting reserves. This release has been reviewed for accuracy by Mr. J. B. Pennington of SRK and for Solitario by Walter Hunt, Chief Operating Officer, both of whom are “qualified persons” as that term is defined in NI 43-101.

Cautionary Note to U.S. Investors concerning estimates of Resources: This section 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.

Terms of the Mt. Hamilton Joint Venture

Solitario and Ely Gold formed Mt. Hamilton LLC, a limited liability company which holds 100% of the Mt. Hamilton Project assets under an Operating Agreement. Solitario is the manager with an 80% interest and Ely Gold controls the remaining 20% interest.

About Solitario

Solitario is a gold, silver, platinum-palladium, and base metal exploration and royalty company with projects in Brazil, Mexico, Peru and Nevada. Solitario has significant business relationships with Votorantim Metais and Anglo Platinum. Solitario is traded on the NYSE MKT ("XPL") and on the Toronto Stock Exchange ("SLR"). Additional information about Solitario is available online at www.solitarioxr.com.

About Ely Gold

Ely Gold is focused on the acquisition and development of gold resources in Nevada, including its Green Springs property, 10 miles south of Mt. Hamilton. Ely Gold is traded on the TSX Venture Exchange ("ELY"). Additional information about Ely Gold is available online at www.elygoldandminerals.com.

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Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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 the mining plan at Mt. Hamilton; the potential for confirming, upgrading and expanding oxide gold and silver mineralized material at Mt. Hamilton; reserve and resource estimates; operating cost estimates; estimates of gold and silver grades; estimates of recovery rates; expectations regarding the cash flow generated by the property; and other statements that are not historical facts. 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 exploration and property advancement efforts will not be successful; risks relating to fluctuations in the price of gold and silver; the inherently hazardous nature of mining-related activities; uncertainties concerning reserve and resource estimates; availability of outside contractors in connection with Mt. Hamilton 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.