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January 12, 2010

SOLITARIO ANNOUNCES MAJOR EXPANSION OF EXPLORATION AND DEVELOPMENT ACTIVITIES ON ITS BONGARÁ PROJECT, PERU

Denver, Colorado: Solitario Exploration & Royalty Corp. (“Solitario” - NYSE Amex: **XPL**; TSX: **SLR**) announced that significant new exploration and development activities are planned for 2010 on its high-grade Bongará zinc project in northern Peru. Solitario’s partner and project manager, Votorantim Metais (“Votorantim”), has completed its 2010 planning and budgeting for the project. Highlights for 2010 include the initiation of road construction to the project area, initiation of underground access to the San Jorge deposit, metallurgical testing and an aggressive continuation of surface drilling to further define mineralization.

The planned road construction encompasses approximately 18 kilometers of new road alignment to the deposit. To date, access to the deposit has occurred via helicopter and foot-trails. The initiation of underground access to mineralization is also scheduled for this field season, with approximately 700 meters of planned underground workings. Initially the underground work will be supported by helicopter transportation of personnel and materials, until road access is completed. Construction of additional infrastructure near the underground portal site is planned for personnel and underground operations.

Advanced metallurgical testing will also be conducted on mineralized material to further evaluate metallurgical recovery and ore characterization. Completion of this work is anticipated by the end of the first quarter of 2010. Finally, Votorantim is planning on completing approximately 10,000 meters of helicopter-assisted core drilling from the surface during 2010 to further define and extend mineralization.

Timing of many of the aforementioned activities is substantially contingent upon obtaining permits required by the Peruvian government. In order to fast-track the project, Votorantim is updating its social impact risk assessment in parallel with archeological clearance activities, as well as other permit requirements. Approvals are expected sometime in the second quarter of 2010, coinciding with the cessation of the rainy season.

Chris Herald, President and CEO, stated, "The proposed work plan is a major milestone in the advancement of the project. These activities are critical to the potential development of the project and will form a significant component to a detailed feasibility study currently scheduled to begin in 2011. We are extremely pleased with Votorantim’s aggressive work plan and look forward to reporting substantial progress on the project throughout 2010."

Terms of the Bongará Agreement

The Bongará property is currently held in a 100%-owned subsidiary of Solitario, Minera Bongará. Votorantim can earn up to a 70% shareholding interest in Minera Bongará, with the remaining 30% interest held by Solitario, by completing exploration and development expenditures totaling at least \$18.0 million and by making annual cash payments of \$200,000 to Solitario until a production decision is made or the agreement is terminated. The option to earn the 70% interest can be exercised by Votorantim at any time by committing to place the project into production based upon a feasibility study. Additionally, Votorantim, in its sole discretion, may elect to terminate the option to earn the 70% interest at any time. Once Votorantim completes its earn-in requirements, it has further agreed to finance Solitario's 30% participating interest until commercial production is achieved. Solitario will repay the loan facility through 50% of Solitario's cash flow distributions from the joint operating company.

About Votorantim Metais

Votorantim Metais belongs to a privately-held Brazilian industrial conglomerate that is a leader in every market segment in which it operates, including cement, pulp and paper, metals, chemicals, orange juice, and finance. In 2008, Votorantim Group's revenues amounted to US\$19.1 billion. The metal business division accounted for approximately 30% of revenues and produces zinc, nickel, steel and aluminum. Votorantim Metais is the world's third largest primary zinc producer with three operating zinc smelters, two operating zinc mines and other zinc processing facilities in the USA and China. It owns the recently expanded Cajamarquilla zinc smelter and is a major shareholder of Peruvian zinc producer - Milpo, both located in Peru.

About Solitario

Solitario is a gold, silver, platinum-palladium, and base metal exploration and royalty company actively exploring in Brazil, Mexico, and Peru. Besides Votorantim Metais, Solitario has significant business relationships with Anglo Platinum and Newmont Mining. Solitario has approximately US\$21 million in cash and marketable securities and no debt. Solitario is traded on the NYSE Amex ("XPL") and on the Toronto Stock Exchange ("SLR"). Additional information about Solitario is available online at www.solitarioxr.com

FOR MORE INFORMATION, CONTACT:

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This press release 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.