



Solitario Receives Final US Forest Service Approval of its Revised Plan of Operations for Drilling on its Golden Crest Gold Project

DENVER, CO – June 24, 2024 - Solitario Resources Corp. (“Solitario”) (NYSE American: XPL; TSX: SLR) is pleased to announce that its final revised Plan of Operations for its Golden Crest project has been signed by US Forest Service. Additionally, the South Dakota Board of Minerals has accepted Solitario’s reclamation bond paving the way for exploration drilling to begin. We are now in the process of mobilizing drilling equipment and organizing support equipment necessary for our drilling operations. Several drill targets are planned to be tested, including Downpour, Whirlwind, Matchstick and Mirage. None of these high-quality gold targets have ever been drilled before.

Chris Herald, President and CEO of Solitario, stated: *“Final US Forest Service signoff on our Plan of Operations represents a milestone event for Solitario. We are excited to initiate drilling at Golden Crest where we have discovered and developed multiple outstanding drill targets during the past couple of years. Phase-One of the 2024 drilling program consists of 5,000 meters of drilling, and we are prepared to quickly expand the scope of Phase-One drilling should early results warrant. We now look forward to reporting our progress and results.*

Our exploration team designed a comprehensive program that protects the environment, including water and surface resources, and the safety and health of our employees and other parties using the forest. The U.S. Forest Service has thoroughly vetted our proposed surface activities and impacts and incorporated modifications to the original plan as required under US Forest Service regulations and the NEPA public input process. In addition, the South Dakota Department of Agriculture & Natural Resources has also provided input and guidance to our proposed drilling activities to ensure compliance with all state regulations, especially as it pertains to ensuring ground water quality. We are confident that we will be able to execute our program in a safe and responsible manner.”

Walter Hunt to Retire / Golden Crest Management Team Strengthened

Walter Hunt, Solitario’s COO, will be retiring from Solitario at the end of June. Walt has been with the Company for over 30 years directing various exploration, development and permitting activities for Solitario.

Chris Herald, President and CEO, stated: *“Solitario has been very fortunate to have had such a dedicated and talented executive on its team for his many years of service. Among Walt’s many accomplishments for Solitario were directing the discovery team of the high-grade Florida Canyon zinc deposit in Peru, expansion of resources and completion of a feasibility study and mine permitting at our former 80%-owned Mt. Hamilton gold deposit in Nevada. More recently, Walt directed the exploration team at Golden Crest, including managing the drill hole permitting*

process. Although Walt could have retired several years ago, he made the commitment to complete the initial drill hole permitting process at Golden Crest. With final Forest Service signoff on Golden Crest's Plan of Operation, Walt has decided it's the right time to retire and let our experienced Golden Crest exploration team move the project forward from here.

On a personal note, I have known Walt since my Colorado School of Mines graduate school days in the late 1970's. We are not only long-term Solitario employees that have worked closely together for decades, but are also close personal friends. I wish Walt nothing but the best in his new adventures in retirement and thank him for his incredible contributions to Solitario over the years. Although Walt will be missed on a day-to-day basis, he remains committed to assist Solitario as a valued advisor whenever needed."

Walt Hunt commented further: *"This was a difficult decision. Golden Crest is the most exciting gold project I've ever worked on with exceptional potential. However, there comes a time in everyone's career when it's time to step down and go in another direction in one's life. I have total confidence in our Golden Crest team in taking this project to the next level. Our advanced stage zinc projects are also in great hands with our managing partners, Teck and Nexa Resources."*

Solitario recently expanded its Golden Crest project management team with the addition of Sandor ("Shawn") Ringhoffer. Sandor comes to Solitario with over 36 years in the gold exploration arena, 19 years of which were spent with Agnico Eagle. Most recently, Sandor was project manager for Agnico Eagle's Gilt Edge gold mine re-evaluation project in the Black Hills. Work on this project included establishing a community relations team, diamond core drilling, geophysics, and complying with a three-way administrative settlement agreement with State and Federal agencies which authorized work on the project. Sandor worked six years in the Black Hills from 1988 through 1994 in the position of Mine Geologist at Golden Reward and at Gilt Edge.

Chris Herald commented: *"Sean is a valuable addition to our Golden Crest team with his extensive experience in exploration and permitting in the Black Hills. I am confident that our current management and geologic team at Golden Crest, together with our highly dedicated South Dakota staff, will be successful in advancing Golden Crest."*

About Solitario

Solitario is a natural resource exploration company focused on high-quality Tier-1 gold and zinc exploration projects. Solitario's 100%-owned Golden Crest properties in South Dakota constitute strategic land holdings along the western and southwestern extensions of the Homestake-Wharf mining district that has produced approximately 52 million ounces of gold and contains another 30 million ounces in historical resources (not SK-1300 or NI-4301 compliant). The project area is located in a safe jurisdiction with highly developed infrastructure, an unbroken 150-year record of continuous gold mining, a skilled mining workforce, and a history of high-grade, underground mineable gold deposits.

The Company is traded on the NYSE American ("XPL") and on the Toronto Stock Exchange ("SLR"). In addition to its South Dakota property holdings, Solitario holds a 50% joint venture

interest (Teck Resources 50%) in the high-grade Lik zinc deposit in Alaska and a 39% joint venture interest (Nexa Resources 61%) on the high-grade Florida Canyon zinc project in Peru. At Florida Canyon, Solitario is carried to production through its joint venture arrangement with Nexa. Solitario's Management and Directors hold approximately 9.3% (excluding options) of the Company's 80.2 million shares outstanding. Solitario's cash balance and marketable securities stand at approximately US\$9.6 million. Additional information about Solitario is available online at www.solitarioresources.com.

Solitario has a long history of committed Environmental, Social and Responsible Governance ("ESG") of its business. We realize ESG issues are also important to investors, employees, and all stakeholders, including communities in which we work. We are committed to conducting our business in a manner that supports positive environmental and social initiatives and responsible corporate governance. Importantly, we work with joint venture partners that not only value the importance of ESG issues in the conduct of their business on our joint venture projects but are leaders in the industry in this important segment of our business.

For More Information Please 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 facts. 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 numerous 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. Solitario's Golden Crest land position does not cover any of the areas of historical gold production or historical unmined resources. Certain historical information concerning exploration and gold production in the Black Hills region has been obtained through both public and private sources and are believed to be substantially factual, but Solitario can give no assurances of the accuracy of such information. The existence of historic mines and resources adjacent to Solitario's land position do not necessarily support the existence of economic mineral deposits on Solitario's land position. 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 any of its mineral properties. 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, gold, 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; risks relating to the impacts of pandemics or similar epidemics; 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.