

SOLITARIO EXPLORATION & ROYALTY CORP.  
Form 10-K  
March 30, 2015

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

**FORM 10-K**

(Mark One)

Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2014

or

Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number **001-32978**

**SOLITARIO EXPLORATION & ROYALTY CORP.**

(Exact name of registrant as specified in charter)

**Colorado**

(State or other jurisdiction of incorporation or organization)

**4251 Kipling St. Suite 390, Wheat Ridge, CO**

(Address of principal executive offices)

Registrant's telephone number, including area code

**84-1285791**

(I.R.S. Employer Identification No.)

**80033**

(Zip Code)

**(303) 534-1030**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class                      Name of exchange on which registered  
**Common Stock, \$0.01 par value NYSE MKT**

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

YES [ ] NO [X]

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

YES [ ] NO [X]

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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

YES  NO

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

YES  NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained to the best of registrant's knowledge in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.:

Non-accelerated Filer

Large accelerated filer  Accelerated filer  (Do not check if a smaller reporting company)  Smaller Reporting Company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

YES  NO

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant as of the last business day of the registrant's most recently completed second fiscal quarter, based upon the closing sale price of the registrant's common stock on June 30, 2014 as reported on NYSE MKT was approximately \$47,915,000.

There were 39,247,689 shares of common stock, \$0.01 par value, outstanding on March 25, 2015.

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## **PART I**

This Annual Report on Form 10-K contains statements that constitute "forward-looking statements" within the meaning of section 27A of the Securities Act of 1933 and section 21E of the Securities Exchange Act of 1934. These statements can be identified by the fact that they do not relate strictly to historical information and include the words "expects", "believes", "anticipates", "plans", "may", "will", "intend", "estimate", "continue" or other similar expressions. These forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from those currently anticipated. These risks and uncertainties include, but are not limited to, items discussed below in Item 1A "Risk Factors" in this Form 10-K. Forward-looking statements speak only as of the date made. We undertake no obligation to publicly release or update forward-looking statements, whether as a result of new information, future events or otherwise. You are, however, advised to consult any further disclosures we make on related subjects in our quarterly reports on Form 10-Q and any reports made on Form 8-K to the United States Securities and Exchange Commission (the "SEC").

### **Item 1. Business**

#### The Company

Solitario Exploration & Royalty Corp. ("Solitario" or the "Company") is a development stage company (prior to February 22, 2012 we were an exploration stage company) with a focus on developing the Mt. Hamilton gold project, the acquisition of precious and base metal properties with exploration potential, and the development or purchase of royalty interests. We acquire and hold a portfolio of exploration properties for future sale, joint venture, or to create a royalty prior to the establishment of proven and probable reserves.

In August 2010 we signed a Letter of Intent related to the Mt. Hamilton project, located in Nevada, and in December 2010 we signed a Limited Liability Company Operating Agreement ("MH Agreement") in connection with the formation of Mt. Hamilton LLC ("MH-LLC"). We announced on February 22, 2012 the completion of a feasibility study on our Mt. Hamilton project (the "Feasibility Study"), prepared by SRK Consulting (US), Inc. of Lakewood, Colorado ("SRK"). As a result of the completion of the Feasibility Study, we earned an 80% interest in MH-LLC, the 100% owner of the Mt. Hamilton project, and we may develop the Mt. Hamilton project, subject to a number of factors including obtaining necessary permits and availability of required development financing capital, none of which is currently in place. We may also explore other strategic options with respect to the Mt. Hamilton project, including a potential sale of all or a part of our interest or other contractual arrangements intended to monetize our interest in Mt. Hamilton. On October 20, 2014, we announced an updated feasibility study ("Updated Feasibility Study") on the Mt. Hamilton project, as discussed below under "Mt. Hamilton Joint Venture." However, we have never developed a mineral property. We are exploring on other mineral properties that may be developed in the future by us or through a joint venture. We may also evaluate mineral properties to potentially buy a royalty.

We have been actively involved in mineral exploration since 1993. During 2014 and 2013, we have recorded revenues from joint venture delay rental payments of \$200,000 for each of 2014 and 2013 related to our Bongará project in Peru and we recorded \$100,000 of delay rental payment revenue for 2013 related to our Mercurio project in Brazil. MH-LLC sold a royalty interest in our Mt. Hamilton project to Sandstorm Gold Ltd. ("Sandstorm") for \$10,000,000 of which \$6,000,000 was paid in June 2012 and \$4,000,000 was paid in January 2013. Previously, our last significant revenues were recorded in 2000 upon the sale of our Yanacocha property for \$6,000,000. Future revenues from the sale of properties, if any, will also occur on an infrequent basis. At December 31, 2014, in addition to our Mt. Hamilton project, we had six mineral exploration properties in Peru and Mexico and our Yanacocha royalty property in Peru and our Mercurio royalty property in Brazil. We are conducting limited exploration activities in all of those countries either on our own using contract geologists, or through joint ventures operated by our partners.

Solitario was incorporated in the state of Colorado on November 15, 1984 as a wholly owned subsidiary of Crown Resources Corporation ("Crown"). In July 1994, we became a publicly traded company on the Toronto Stock Exchange (the "TSX") through our initial public offering. On July 26, 2004, Crown completed a spin-off of its holdings of our shares to its shareholders as part of the acquisition of Crown (the "Crown - Kinross Merger") by Kinross Gold Corporation ("Kinross"). On June 12, 2008, our shareholders approved an amendment to our Articles of Incorporation to change the name of the corporation to Solitario Exploration & Royalty Corp. from Solitario Resources Corporation.

Our corporate structure as of December 31, 2014 is as follows: All of the subsidiaries are 100%-owned, with the exception of Mt. Hamilton LLC, which is 80%-owned by Solitario and Minera Chambara, which is 85%-owned. Subsequent to December 31, 2014, Solitario announced that Votorantim Metais Cajamarquilla, S.A., a wholly owned subsidiary of Votorantim Metais (both companies referred to as "Votorantim") had completed the steps required to earn a 61% interest in the Bongará project in Peru,

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with Solitario retaining a 39% interest in each project. In addition Solitario consented to the transfer of Votorantim's 61% interest into Compania Minera Milpo S.A.A. ("Milpo"). Milpo, an affiliate of Votorantim, is traded on the Lima exchange under the symbol MILPOCI. Beginning in January 2015, Solitario accounts for its interest in both Bongará and Minera Chambara under the equity method of accounting.

Solitario Exploration & Royalty Corp. [Colorado]

- Altoro Gold Corp. [British Columbia, Canada]

- Altoro Gold (BVI) Corp. [British Virgin Islands]

- Minera Altoro (BVI) Ltd. [British Virgin Islands]

- Minera Altoro Brazil (BVI) Corp. [British Virgin Islands]

- Minera Chambara, S.A. [Peru] (85% in January 2015)

- Minera Solitario Peru, S.A. [Peru]

- Minera Bongará, S.A. [Peru] (39% in January 2015)

- Minera Soloco, S.A. [Peru]

- Mineração Solitario Brazil, Ltd [Brazil]

- Minera Solitario Mexico, S.A. [Mexico]

- Mt. Hamilton, LLC [Colorado] (80%)

General

We are currently primarily working on development activities related to our Mt. Hamilton gold project that we may develop, subject to a number of factors including obtaining necessary permits and availability of required development financing capital, none of which is currently in place. We may explore other strategic options with respect to the Mt. Hamilton project, including a potential sale of all or a part of its interest or other contractual arrangements intended to monetize our interest. We have never developed a property in our history. As of December 31, 2014, per the Updated Feasibility Study, we reported proven and probable reserves at Mt. Hamilton of 22,500,000 tons of ore at a grade of 0.024 ounces of gold per ton for 544,400 contained ounces of gold and a grade of 0.198 ounces of silver per ton for 4,459,600 ounces of silver as discussed below under Item 2, "Properties, The Mt. Hamilton gold property." The development of the Mt. Hamilton project, if it occurs, will entail a significant initial capital investment, which is estimated in the Updated Feasibility Study to be approximately \$91.7 million. The Company is unlikely to be able to obtain the funds necessary to develop the Mt. Hamilton project on its own, and expects that a significant contribution from a third party will be required to fully develop the project. None of our other properties

have reserves.

In addition to our activities related to the Mt. Hamilton project, one of our primary goals is to discover economic deposits on our mineral properties and advance these deposits, either on our own or through joint ventures, up to the development stage (development activities include, among other things, completion of a feasibility study for the identification of proven and probable reserves, as well as permitting and preparing a deposit for mining). At that point, or sometime prior to that point, we would attempt to either sell our mineral properties, or pursue their development either on our own or through a joint venture with a partner that has expertise in mining operations, or create a royalty with a third-party that continues to advance the property. During 2013 we significantly reduced our exploration activities in Peru, Mexico and Brazil. We no longer have any active employees in any of those countries, and our current and near-term future exploration activities consist of care and maintenance of our existing exploration projects through the use of contract geologists and management of our joint ventures.

In analyzing our activities, a significant aspect relates to results of our development activities at the Mt. Hamilton project and our exploration activities and those of our joint venture partners' on a property-by-property basis. When these activities, including drilling, sampling and geologic testing, indicate a project may not be economic or contain sufficient geologic or economic potential, we may impair or completely write-off the property. Another significant factor in the success or failure of our activities is the price of commodities. For example, when the price of gold is up, the value of gold-bearing mineral properties increases; however, it may also become more difficult and expensive to locate and acquire new gold-bearing mineral properties with potential to have economic deposits.

The potential sale, joint venture or development, either on our own or through a joint venture of our mineral properties would likely occur, if at all, on an infrequent basis. Accordingly, while we conduct exploration activities and planned development of the Mt. Hamilton project and exploration activities at our other projects, we need to maintain and replenish our capital resources. We have met our need for capital in the past through (i) sale of our investment in Kinross common stock; (ii) borrowing in the form of short-term margin debt secured by our investment in Kinross; (iii) borrowing under our the facility Agreement we entered into with RMB Australia Holdings Limited ("RMBAH") and RMB Resources Inc. ("RMBR") in August 2012 (the "Facility Agreement") with all borrowings under the Facility Agreement collectively referred to in this report as the

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“RMB Loan;” (iv) joint venture delay rental payments, including payments on our Bongará property and on our Mercurio project; (v) the royalty sale to Sandstorm; (vi) the sale of properties, which last occurred in 2000 with the sale of our Yanacocha property for \$6,000,000; and (vii) issuance of common stock, including the exercise of options. In the past and with the exception of the Mt. Hamilton project, we have reduced our exposure to the costs of our exploration activities through the use of joint ventures. We anticipate these practices will continue for the foreseeable future.

We operate in two segments, mining development at our Mt. Hamilton project and mineral exploration. We currently conduct limited exploration activities in Peru and Mexico. See Note 13 “Segment Reporting” in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K. As of March 25, 2015, we had six full-time employees, located in the United States and no full-time employees outside of the United States. We utilize contract geologists and laborers to assist us in most of the care and maintenance of our Latin American exploration projects.

A large number of companies are engaged in the exploration and development of mineral properties, many of which have substantially greater technical and financial resources than we have and, accordingly, we may be at a disadvantage in being able to compete effectively for the acquisition, exploration and development of mineral properties. We are not aware of any single competitor or group of competitors that dominate the exploration and development of mineral properties. In acquiring mineral properties for exploration and development, we rely on the experience, technical expertise and knowledge of our employees, which is limited by the size of our company compared to many of our competitors who may have either more employees or employees with more specialized knowledge and experience.

#### Governmental Regulations

Mineral development and exploration activities are subject to various national, state/provincial, and local laws and regulations, which govern prospecting, development, mining, production, exports, taxes, labor standards, occupational health, waste disposal, protection of the environment, mine safety, hazardous substances and other matters. Similarly, if any of our properties are developed and/or mined those activities are also subject to significant governmental regulation and oversight. We are required to obtain the licenses, permits and other authorizations in order to conduct our exploration program.

#### Environmental Regulations

Our current and planned activities are subject to various national and local laws and regulations governing protection of the environment. These laws are continually changing and, in general, are becoming more restrictive. We intend to conduct business in a way that safeguards public health and the environment. We are required to conduct our operations in compliance with applicable laws and regulations.



Changes to current state or federal laws and regulations in each jurisdiction in which we conduct our exploration and development activities could, in the future, require additional capital expenditures and increased operating and/or reclamation costs. Although we are unable to predict what additional legislation, if any, might be proposed or enacted, additional regulatory requirements could impact the economics of our projects.

During 2014, we had no material environmental incidents or non-compliance with any applicable environmental regulations.

#### Mt. Hamilton Joint Venture

On August 26, 2010, we signed a Letter of Intent (“LOI”) with Ely Gold & Minerals Inc., (“Ely”) to make certain equity investments into Ely and to joint venture Ely’s Mt. Hamilton gold project, which was wholly-owned by DHI Minerals (US) Ltd. (“DHI”), an indirect wholly-owned subsidiary of Ely. On August 26, 2010 and October 19, 2010, we made private placement investments of Cdn\$250,000 each in Ely securities. We received a total of 3,333,333 shares of Ely common stock and warrants to purchase a total of 1,666,667 shares of Ely common stock (the “Ely Warrants”) for an exercise price of Cdn\$0.25 per share, which expired two years from the date of purchase. The private placements were pursuant to the LOI to joint venture Ely’s Mt. Hamilton gold project. On November 12, 2010, we made an initial contribution of \$300,000 for a 10% membership interest in, upon the formation of, MH-LLC, which was formed in December 2010. The terms of the joint venture are set forth in the MH Agreement. MH-LLC owns 100% of the Mt. Hamilton gold project. Pursuant to the MH Agreement, as a result of the completion of the Feasibility Study, Solitario has earned an 80% interest in MH-LLC, and indirectly, the Mt. Hamilton project. See a more complete discussion of Ely and MH-LLC below in Item 2, “Mineral Properties” below.

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Investment in Kinross

We have a significant investment in Kinross at December 31, 2014, which consists of 480,000 shares of Kinross common stock. In August 2006, we received 1,942,920 Kinross shares in exchange for 6,071,626 shares of Crown common stock we owned on the date of the Crown - Kinross Merger. Subsequent to the Crown - Kinross Merger, we have sold 1,462,920 shares of Kinross common stock to fund our operations. As of March 25, 2015 we own 480,000 shares of Kinross common stock that have a value of approximately \$1.18 million based upon the market price of \$2.46 per Kinross share. Any significant fluctuation in the market value of Kinross common stock could have a material impact on Solitario's liquidity and capital resources.

Mineral Properties - General

In 2010 we acquired a 10% interest in MH-LLC with an option to earn up to the 80% interest which we now hold as a result of completion of the Feasibility Study. MH-LLC owns the Mt. Hamilton mining claims located in Nevada, USA.

We have been involved in the exploration for minerals in Latin America, focusing on precious and base metals, including gold, silver, platinum, palladium, copper, lead and zinc. We have held concessions in Peru since 1993 and in Bolivia and Brazil since 2000. During 2004 we began a reconnaissance exploration program in Mexico and acquired mineral interests there in 2005. During 2012 we terminated our mineral property activity in Bolivia and during 2013 we significantly reduced our exploration activities in Peru, Mexico and Brazil. We no longer have any active employees in any of those countries, and our exploration activities consist of care and maintenance of our existing exploration projects through the use of contract geologists and management of our joint ventures.

Financial Information about Geographic Areas

Included in the consolidated balance sheets at December 31, 2014 and 2013 are total assets of \$70,000 and \$412,000, respectively, related to Solitario's foreign operations located in Brazil, Peru, and Mexico. Subsequent to 2014, our joint venture partner, Anglo Platinum, Ltd, placed the Pedra Branca project on care and maintenance. As of December 31, 2014, we have no remaining investment recorded relating to Pedra Branca do Mineração, the owner of the Pedra Branca project, of which we own 49% and account for under the equity method of accounting.

Available Information

We file our Annual Report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports electronically with the SEC. The public may read and copy any materials we file with the SEC at the SEC's public reference room at 100 F Street NE, Washington, DC 20549 or by calling the SEC at 1-800-SEC-0330. In addition the SEC maintains an internet website, <http://www.sec.gov>, which contains reports, proxy information and other information regarding issuers that file electronically with the SEC.

Paper copies of our Annual Report to Shareholders, our Annual Report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports are available free of charge by writing to Solitario at its address on the front of this Form 10-K. In addition, electronic versions of the reports we file with the SEC are available on our website, [www.solitarioresources.com](http://www.solitarioresources.com) as soon as practicable, after filing with the United States Securities and Exchange Commission.

### **Item 1A. Risk Factors**

In addition to considering the other information in this Form 10-K, you should consider carefully the following factors. The risks described below are the significant risks we face and include all material risks. Additional risks not presently known to us or risks that we currently consider immaterial may also adversely affect our business.

***We hold an 80% interest in the Mt. Hamilton project through our membership interest in MH-LLC. The potential development of the Mt. Hamilton project has inherent risks to Solitario including permitting, finance, mining operations and closure, for which Solitario has limited experience, resources and personnel. Failure on any of these or other components of the potential development of the Mt. Hamilton project could contribute to our inability to profitably develop, operate or enter into an arrangement to monetize the Mt. Hamilton project, which could result in the loss of our investment in MH-LLC, and the loss of all or a significant portion of our financial reserves.***

The development of mining properties involves a high degree of risk including the requirement to obtain permits, the need for significant financial resources for the construction and development of an operating mine, operational expertise and reclamation. We do not have a history of developing or operating mines and may not be able to acquire the additional personnel

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to adequately manage such operations. In addition, the financial resources required to put a mine into production and to sustain profitable operating mines are significant (the development costs of the Mt. Hamilton project are estimated in the Updated Feasibility Study to be \$91.7 million) and far exceed our existing financial resources and there can be no assurance that we will be able to obtain such financial resources. The Company expects that to fully develop the project would require a significant contribution from a third party and there can be no assurance the Company will be able to enter in any such form of arrangement. During 2014 the United States Forest Service (the "Forest Service") approved our Environmental Assessment ("EA") In addition we are required to obtain various other less complex state and local permits related to the construction and operation of the Mt. Hamilton Project mine. Should we fail to timely complete any of the activities required for the planned development of the Mt. Hamilton project, or if upon completion of the development of the Mt. Hamilton project we are unable to operate the project profitably, it could result in the loss of our investment in MH-LLC, the loss of all or a significant portion of our financial reserves and be a detriment to our other exploration assets. The failure to completely permit, develop, operate and close the Mt. Hamilton project on a timely and profitable basis could negatively affect our stock price and our financial position and operational results.

***The potential development, operational or other potential plans to monetize our investment for Mt. Hamilton as well as projected economic results rely substantially upon the Updated Feasibility Study prepared by SRK. The Updated Feasibility Study makes certain assumptions regarding the mining, processing and environmental reclamation parameters, as well as estimates for capital costs to build the mine, costs to operate the mine, environmental regulations to build, operate and reclaim the mine, and revenues generated based upon the assumed grade of ore, recovery of gold and silver, as well as future market price of gold and silver. There are significant risks that the assumptions made in the Updated Feasibility Study may not be accurate when, and if, we build and operate the mine, or that we may not be able to achieve the results anticipated in the Updated Feasibility Study.***

The Updated Feasibility Study relies substantially upon many assumptions, including, but not limited to, the accuracy of the estimated proven and probable reserves, the estimated versus actual recovery of gold and silver, the requirements and timing for environmental approvals, the cost to build the mine and processing plant, the cost of operating the mine, closure costs, and availability of necessary personnel to operate the mine. We can give no assurance the assumptions built into the Updated Feasibility Study are achievable now or in the future. Costs estimated in the feasibility will change with time, and historically have escalated. Environmental requirements also will change, and usually requirements have become more strict and costly. Should we fail to timely complete any of the development components recommended in the Updated Feasibility Study, or if upon completion of the development of the Mt. Hamilton project we are unable to operate the project as described in the Updated Feasibility Study, it could result in the loss of our investment in MH-LLC, the loss of all or a significant portion of our financial reserves and could negatively affect our stock price, our financial position and operational results.

***We may elect to try to dispose of all or a portion of our interest in the Mt. Hamilton project, or otherwise enter into some arrangement to monetize our interest in the project.***

From time to time the Company sells its interest in mineral properties or projects in whole or in part. The development of the Mt. Hamilton project will require a significant amount of capital and the Company may determine that

circumstances dictate that the Company sell all or a portion of its interest in the project or otherwise seek to enter into some form of arrangement that will allow the Company to realize near term economic benefits from the development of the project. There can be no assurance that the Company will be able to identify and execute on a sale of any portion of its interest in the Mt. Hamilton project or that identify or execute on any arrangement with a third party that will provide the Company economic benefits.

***Our mineral exploration activities involve a high degree of risk; a significant portion of our business model envisions the sale or joint venture of mineral property. If we are unable to sell or joint venture these properties, the money spent on exploration may never be recovered and we could incur an impairment of our investments in our projects.***

The exploration for mineral deposits involves significant financial and other risks over an extended period of time. Few properties that are explored are ultimately developed into producing mines. Major expenses are required to determine if any of our mineral properties may have the potential to be commercially viable and be salable or joint ventured. Prior to completion of the Feasibility Study on our Mt. Hamilton project, we never established reserves on any of our properties. Significant additional expense and risks, including drilling and determining the feasibility of a project, are required prior to the establishment of reserves. It is impossible to ensure that the current or proposed exploration programs on properties in which we have an interest will be commercially viable or that we will be able to sell, joint venture or develop our properties. Whether a mineral deposit will be commercially viable depends on a number of factors, some of which are the particular attributes of the deposit, such as its size and grade, costs and efficiency of the recovery methods that can be employed, proximity to infrastructure, financing costs and governmental regulations, including regulations relating to prices, taxes, royalties, infrastructure, land use, importing and exporting of gold or other minerals, and environmental protection.

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We believe the data obtained from our own exploration activities or our partners' activities to be reliable; however, the nature of exploration of mineral properties and analysis of geological information is often subjective and data and conclusions are subject to uncertainty. Even if our exploration activities determine that a project is commercially viable, it is impossible to ensure that such determination will result in a profitable sale of the project or development by a joint venture in the future and that such project will result in profitable commercial mining operations. If we determine that capitalized costs associated with any of our mineral interests are not likely to be recovered, we would incur an impairment of our investment in such property interest. All of these factors may result in losses in relation to amounts spent, which are not recoverable. We have experienced losses of this type from time to time including during 2014 when we wrote down our investments in our Pachuca silver project in Mexico recording mineral property impairments totaling \$20,000 and during 2013 when we wrote down our investments in our Cerro Azul, Atico and Jaripo projects recording mineral property impairments totaling \$13,000.

***We have a significant investment in Kinross Gold Corporation (“Kinross”) common stock. We have no control over fluctuations in the price of Kinross common stock, and reductions in the value of this investment could have a negative impact on the market price of our common stock.***

We have a significant investment in Kinross as of March 25, 2015. We have experienced reduction in the value of Kinross stock during the past two years with the value of Kinross stock dropping from approximately \$11.40 per share to a low of \$2.00 per share. Further negative fluctuation in the market value of Kinross common stock could have a material impact on the market price of our common stock and our liquidity and capital resources.

***Our debt could adversely affect our financial condition; and our related debt service obligations may adversely affect our cash flow and ability to invest in and grow our businesses.***

We have, and for the foreseeable future will continue to have, a significant amount of indebtedness. As of December 31, 2014 we had \$4,861,000 in short term-indebtedness, consisting of \$5,000,000 in indebtedness pursuant to the RMB Loan, before the remaining unamortized debt discount of \$139,000 arising as a result of the warrants issued to the lender in connection with the Facility Agreement. As of March 25, 2015 we have \$4,915,000 of short-term indebtedness under the RMB Loan including the remaining unamortized debt discount of \$85,000. Amounts outstanding under the RMB Loan incur interest at the 90-day LIBOR rate plus 5% with interest being payable quarterly. Accordingly, if the LIBOR rates increase the corresponding interest rate under the Facility Agreement will increase. The RMB Loan is due in full in August 2015 and we do not have sufficient liquidity to repay the amounts outstanding under the RMB Loan. Due to our limited financial resources, and the obligation to repay the RMB Loan in full in August 2015, the audit report of our independent registered public accounting firm contained an explanatory paragraph that due to our near term financial obligations there is substantial doubt about our ability to continue as a going concern. The RMB Loan is secured by substantially all of the Company's assets and therefore if the Company defaults under the Facility Agreement it could result in RMBAH foreclosing on those assets to satisfy the Company's debt obligations.

***The market for shares of our common stock has limited liquidity and the market price of our common stock has fluctuated and may decline.***

An investment in our common stock involves a high degree of risk. The liquidity of our shares, or ability of a shareholder to buy or sell our common stock, may be significantly limited for various unforeseeable periods. The average combined daily volume of our shares traded on the NYSE MKT and the Toronto Stock Exchange (“TSX”) during 2014 was approximately 55,000 shares. The market price of our shares has historically fluctuated within a wide range. The price of our common stock may be affected by many factors, including an adverse change in our business, a decline in gold or other commodity prices, negative news on our projects and general economic trends.

***Our mineral exploration and development activities are inherently dangerous and could cause us to incur significant unexpected costs including legal liability for loss of life, damage to property and environmental damage, any of which could materially adversely affect our financial position or results of operations.***

Our operations are subject to the hazards and risks normally related to exploration or development of a mineral deposit including mapping and sampling, drilling, road building, trenching, assaying and analyzing rock samples, transportation over primitive roads or via small contract aircraft or helicopters and severe weather conditions, any of which could result in damage to life or property, environmental damage and possible legal liability for such damage. Any of these risks could cause us to incur significant unexpected costs that could have a material adverse effect on our financial condition and ability to finance our exploration and development activities.

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***We have a history of losses and if we do not operate profitably in the future it could have a material adverse effect on our financial position or results of operations and the trading price of our common stock would likely decline.***

We have reported losses in 19 of our 21 years of operations. We reported losses of \$1,833,000 and \$2,052,000, respectively, for the years ended December 31, 2014 and 2013. We had a working capital deficit at December 31, 2014, limited cash resources and very limited sources of revenue. We can provide no assurance that we will be able to operate profitably in the future or begin to generate significant and consistent sources of revenues or cash flows from operations. We have had net income in only two years in our history, during 2003, as a result of a \$5,438,000 gain on derivative instrument related to our investment in certain Crown warrants and during 2000, when we sold our Yanacocha property. We cannot predict when, if ever, we will be profitable again or able to begin generating consistent revenues. If we do not operate profitably or identify and execute on outside sources of funding, we may have to reduce certain of our operating activities and the trading price of our common stock will likely decline.

***Our operations outside of the United States of America may be adversely affected by factors outside our control, such as changing political, local and economic conditions, any of which could materially adversely affect our financial position or results of operations.***

Our mineral properties located in Latin America consist primarily of mineral concessions granted by national governmental agencies and are held 100% by us or in conjunction with our joint venture partners, or under lease, option or purchase agreements. Our mineral properties are located in Peru, Mexico and Brazil. We act as operator on all of our mineral properties that are not held in joint ventures or royalty properties. The success of projects held under joint ventures or royalty properties that are not operated by us is substantially dependent on the joint venture partner, over which we have limited or no control.

Our exploration activities and mineral properties located outside of the United States of America ("United States") are subject to the laws of Peru, Brazil and Mexico, where we operate. Exploration and potential development activities in these countries are potentially subject to political and economic risks, including:

- cancellation or renegotiation of contracts;
- disadvantages of competing against companies from countries that are not subject to US laws and regulations, including the Foreign Corrupt Practices Act;
- changes in foreign laws or regulations;
- changes in tax laws;
- royalty and tax increases or claims by governmental entities, including retroactive claims;



- expropriation or nationalization of property;
- currency fluctuations (particularly related to declines in the US dollar compared to local currencies);
- foreign exchange controls;
- restrictions on the ability for us to hold US dollars or other foreign currencies in offshore bank accounts;
- import and export regulations;
- environmental controls;
- risks of loss due to civil strife, acts of war, guerrilla activities, insurrection and terrorism; and
- other risks arising out of foreign sovereignty over the areas in which our exploration activities are conducted.

During 2013 Mexico imposed additional production taxes on metal mines and also holding costs, which added additional uncertainty to our exploration operations in Mexico.

Accordingly, our current exploration activities outside of the United States may be substantially affected by factors beyond our control, any of which could materially adversely affect our financial position or results of operations. Furthermore, in the event of a dispute arising from such activities, we may be subject to the exclusive jurisdiction of courts outside of the United States or may not be successful in subjecting persons to the jurisdictions of the courts in the United States, which could adversely affect the outcome of a dispute.

***We may not have sufficient funding for exploration and development, which may impair our profitability and growth.***

The capital required for exploration and development of mineral properties is substantial. In the past we have financed operations through utilization of joint venture arrangements with third parties (generally providing that the third party will

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obtain a specified percentage of our interest in a certain property or a subsidiary owning a property in exchange for the expenditure of a specified amount), the sale of interests in properties or other assets, the sale of strategic investments in other companies such as Kinross, short-term margin loans, funds from the Facility Agreement, and the issuance of common stock. We will need to raise substantial additional cash, or enter into joint venture arrangements, in order to fund development activities to place the Mt. Hamilton project into production and in the case of our exploration projects, the exploration activities required to determine whether mineral deposits on our projects are commercially viable. It is not likely we will be able to raise sufficient capital resources to fund all costs necessary for development of the Mt. Hamilton project. New financing or acceptable joint venture partners may or may not be available on a basis that is acceptable to us. The inability to obtain new financing or joint venture partners on acceptable terms would likely prohibit us from continued development or exploration of our mineral properties. Without the successful sale or future development of our mineral properties through joint ventures, or on our own, we will not be able to realize any profit from our interests in such properties, which could have a material adverse effect on our financial position and results of operations.

***Our investment in MH-LLC includes the obligation to make payments to underlying leaseholders; failure to make all of the payments due to underlying leaseholders may result in losing all of our interest in the Mt. Hamilton project.***

In connection with the formation of MH-LLC we agreed to make certain annual payments and certain royalty buyout payments to underlying holders of leases at Mt. Hamilton as further described below in Item 2 “Mineral Properties.” Failure to make any of these payments to underlying leaseholders may result in the loss of our entire interest in MH-LLC and the Mt. Hamilton project.

***A large number of companies are engaged in the exploration and development of mineral properties, many of which have substantially greater technical and financial resources than us and, accordingly, we may be unable to compete effectively in the mining industry which could have a material adverse effect on our financial position or results of operations.***

We may be at a disadvantage with respect to many of our competitors in the acquisition, exploration and development of mining projects. Our competitors with greater financial resources than us will be better able to withstand the uncertainties and fluctuations associated with sustained downturns in the market and to acquire high quality exploration and mining properties when market conditions are favorable. In addition, we compete with other mining companies to attract and retain key executives and other employees with technical skills and experience in the mineral exploration business. There can be no assurance that we will continue to attract and retain skilled and experienced employees or to acquire additional exploration projects. The realization of any of these risks from competitors could have a material adverse effect on our financial position or results of operations.

***The title to our mineral properties may be defective or challenged which could have a material adverse effect on our financial position or results of operations.***

In connection with the acquisition of our mineral properties, we conduct limited reviews of title and related matters, and obtain certain representations regarding ownership. These limited reviews do not necessarily preclude third parties from challenging our title and, furthermore, our title may be defective. Consequently, there can be no assurance that we hold good and marketable title to all of our mineral interests. Additionally, we have to make annual filings to various government agencies on all of our mineral properties. If we fail to make such filings, or improperly document such filings, the validity of our title to a mineral property could be lost or challenged. If any of our mineral interests were challenged, we could incur significant costs in defending such a challenge. These costs or an adverse ruling with regards to any challenge of our titles could have a material adverse effect on our financial position or results of operations.

***We have no reported mineral reserves, other than at our Mt. Hamilton project, and if we are unsuccessful in identifying mineral reserves in the future, we may not be able to realize any profit from these property interests.***

None of our Latin American projects have reported mineral reserves. Any mineral reserves on these projects will only come from extensive additional exploration, engineering and evaluation of existing or future mineral properties. The lack of reserves on these mineral properties could prohibit us from sale or joint venture of our mineral properties and we would not be able to realize any profit from our interests in such mineral properties, which could materially adversely affect our financial position or results of operations. Additionally, if we or partners to whom we may joint venture these mineral properties are unable to develop reserves on our mineral properties we may be unable to realize any profit from our interests in such properties, which could have a material adverse effect on our financial position or results of operations.

***Our operations could be negatively affected by existing as well as potential changes in laws and regulatory requirements that we are subject to, including regulation of mineral exploration and land ownership, environmental regulations and taxation.***

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The exploration and development of mineral properties is subject to federal, state, provincial and local laws and regulations in the countries in which we operate in a variety of ways, including regulation of mineral exploration and land ownership, environmental regulation and taxation. These laws and regulations, as well as future interpretation of or changes to existing laws and regulations, may require substantial increases in capital and operating costs to us and delays, interruptions, or a termination of operations.

In the United States and the other countries in which we operate, in order to obtain permits for exploration or potential future development of mineral properties, environmental regulations generally require a description of the existing environment, including but not limited to natural, archeological and socio-economic environments, at the project site and in the region; an interpretation of the nature and magnitude of potential environmental impacts that might result from such activities; and a description and evaluation of the effectiveness of the operational measures planned to mitigate the environmental impacts. The total expenditures on our Mt. Hamilton project are budgeted to be approximately \$1,122,000 during 2015, which includes property payments and payments directly and indirectly related to permitting and development of the project. These payments could increase as a result of permitting delays or other challenges during the year, which we cannot accurately predict. Currently the expenditures to obtain exploration permits to conduct our exploration activities are not material to our total exploration cost.

The laws and regulations in all the countries in which we operate are continually changing and are generally becoming more restrictive, especially environmental laws and regulations. As part of our ongoing exploration activities, we have made expenditures to comply with such laws and regulations, but such expenditure could substantially increase our costs to achieve compliance in the future. Delays in obtaining or failure to obtain government permits and approvals or significant changes in regulation could have a material adverse effect on our exploration activities, our ability to locate economic mineral deposits, and our potential to sell, joint venture or eventually develop our properties, which could have a material adverse effect on our financial position or results of operations.

***Occurrence of events for which we are not insured may materially adversely affect our business.***

Mineral exploration is subject to risks of human injury, environmental liability and loss of assets. We maintain limited insurance coverage to protect ourselves against certain risks related to loss of assets for equipment in our operations and limited corporate liability coverage; however, we have elected not to have insurance for other risks because of the high premiums associated with insuring those risks or for various other reasons including those risks where insurance may not be available. There are additional risks in connection with investments in parts of the world where civil unrest, war, nationalist movements, political violence or economic crisis are possible. These countries may also pose heightened risks of expropriation of assets, business interruption, increased taxation and a unilateral modification of concessions and contracts. We do not maintain insurance against political risk. Occurrence of events for which we are not insured could have a material adverse effect on our financial position or results of operations.

***Severe weather or violent storms could materially affect our operations due to damage or delays caused by such weather.***

Our exploration and development activities in Peru, Brazil, Mexico and Mt. Hamilton (Nevada) are subject to normal seasonal weather conditions that often hamper and may temporarily prevent exploration or development activities. There is a risk that unexpectedly harsh weather or violent storms could affect areas where we conduct these activities. Delays or damage caused by severe weather could materially affect our operations or our financial position.

***Our business is extremely dependent on the market price of gold and other commodities and currency exchange rates over which we have no control.***

Our operations are significantly affected by changes in the market price of gold and other commodities since the evaluation of whether a mineral deposit is commercially viable is heavily dependent upon the market price of gold and other commodities. The price of commodities also affects the value of exploration projects we own or may wish to acquire or joint venture. These prices of commodities fluctuate on a daily basis and are affected by numerous factors beyond our control. The supply and demand for gold and other commodities, the level of interest rates, the rate of inflation, investment decisions by large holders of these commodities, including governmental reserves, and stability of exchange rates can all cause significant fluctuations in prices. Currency exchange rates relative to the United States dollar can affect the cost of doing business in a foreign country in United States dollar terms, which is our functional currency. Consequently, the cost of conducting exploration in the countries where we operate, accounted for in United States dollars, can fluctuate based upon changes in currency exchange rates and may be higher than we anticipate in terms of United States dollars because of a decrease in the relative strength of the United States dollar to currencies of the countries where we operate. We currently do not hedge against currency or commodity fluctuations. The prices of commodities as well as currency exchange rates have fluctuated widely and future significant price declines in commodities or changes in currency exchange rates could have a material adverse effect on our financial position or results of operations.

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***Our business is dependent on key executives and the loss of any of our key executives could adversely affect our business, future operations and financial condition.***

We are dependent on the services of key executives, including our Chief Executive Officer, Christopher E. Herald, our Chief Financial Officer, James R. Maronick, and our Chief Operating Officer, Walter H. Hunt. All of the above named officers have many years of experience and an extensive background in Solitario and the mining industry in general. We may not be able to replace that experience and knowledge with other individuals. We do not have "Key-Man" life insurance policies on any of our key executives. The loss of these persons or our inability to attract and retain additional highly skilled employees may adversely affect our business, future operations and financial condition.

***Our business model relies significantly on other companies to joint venture our projects and we anticipate continuing this practice in the future. Therefore, our results are subject to the additional risks associated with the financial condition, operational expertise and corporate priorities of our joint venture partners.***

Our Bongará project is joint-ventured with another mining company that manages the exploration and development activities on the project and we are the minority-interest party. Although our joint venture agreements with our joint venture partner provide certain voting rights and other minority-interest safeguards, the majority partner not only manages operations, but controls most decisions, including budgets and scope and pace of exploration and development activities. Consequently, we are highly dependent on the operational expertise and financial condition of our joint venture partner, as well as their own corporate priorities. For instance, even though our joint venture property may be highly prospective for exploration success, or economically viable based on feasibility studies, our partner may decide to not fund the further exploration or development of our project based on their respective financial condition or other corporate priorities. Therefore our results are subject to the additional risks associated with the financial condition, operational expertise and corporate priorities of our joint venture partners, which could have a material adverse effect on our financial position or results of operations.

***In addition to our Mt. Hamilton project, we may look to joint venture with another mining company in the future to develop and/or operate one of our foreign projects; therefore, in the future, our results may become subject to additional risks associated with development and production of our foreign mining projects.***

We are not currently involved in mining development or operating activities at any of our properties located outside of the United States. In order to realize a profit from these mineral interests we either have to: (1) sell such properties outright at a profit; (2) form a joint venture for the project with a larger mining company with greater resources, both technical and financial, to further develop and/or operate the project at a profit; (3) develop and operate such projects at a profit on our own; or (4) create and retain a royalty interest in a property with a third party that agrees to advance the property toward development and mining. In the future, if our exploration results show sufficient promise in one of our foreign projects, we may either look to form a joint venture with another mining company to develop and/or operate the project, or sell the property outright and retain partial ownership or a retained royalty based on the success of such project. Therefore, in the future, our results may become subject to the additional risks associated with

development and production of mining projects in general.

***In the future, we may participate in a transaction to acquire a property, royalty or another company that requires a substantial amount of capital or the issuance of Solitario equity to complete. Our acquisition costs may never be recovered due to changing market conditions, or our own miscalculation concerning the recoverability of our acquisition investment. Such an occurrence could adversely affect our business, future operations and financial condition.***

We have been involved in evaluating a wide variety of acquisition opportunities involving mineral properties and companies for acquisition and we anticipate evaluating potential acquisition opportunities in the future. Some of these opportunities may involve a substantial amount of capital or the issuance of Solitario equity to successfully acquire. As many of these opportunities do not have reliable feasibility-level studies, we may have to rely on our own estimates for investment analysis. Such estimates, by their very nature, contain substantial uncertainty. In addition, economic assumptions, such as future costs and commodity prices, also contain significant uncertainty. Consequently, if we are successful in acquiring any new acquisitions and our estimates prove to be in error, either through miscalculations or changing market conditions, this could have a material adverse effect on our financial position or results of operations.

***Failure to comply with the United States Foreign Corrupt Practices Act (“FCPA”) could subject us to penalties and other adverse consequences.***

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As a Colorado corporation, we are subject to the FCPA and similar worldwide anti-bribery laws, which generally prohibit United States companies and their intermediaries from engaging in bribery or other improper payments to foreign officials for the purpose of obtaining or retaining business. Foreign companies, including some that may compete with our company, are not subject to U.S. laws and regulations, including the FCPA, and therefore our exploration, development, production and mine closure activities are subject to the disadvantage of competing against companies from countries that are not subject to these prohibitions.

In addition, we could be adversely affected by violations of the FCPA and similar anti-bribery laws in other jurisdictions. Corruption, extortion, bribery, pay-offs, theft and other fraudulent practices may occur from time-to-time in the countries outside of the United States in which we operate. Our mineral properties are located in countries that may have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. Our policies mandate compliance with these anti-bribery laws; however, we cannot assure you that our internal controls and procedures always will protect us from the reckless or criminal acts committed by our employees or agents. We can make no assurance that our employees or other agents will not engage in such conduct for which we might be held responsible. If our employees or other agents are found to have engaged in such practices or we are found to be liable for FCPA violations, we could suffer severe criminal or civil penalties or other sanctions and other consequences that may have a material adverse effect on our business, financial condition and results of operations.

**Item 1B. Unresolved Staff Comments**

None

**Item 2. Properties**

**Joint Ventures and Strategic Alliance Properties**

**Mt. Hamilton Gold Project (Nevada, USA)**

1. Property Description and Location



The consolidated Mt. Hamilton property consists of 305 unpatented mining claims, 9 patented mining claims totaling 121 acres and 241 acres of fee land. Two hundred seventy eight of these claims and 121 acres of the private surface rights are subject to underlying leases. The unpatented claims are also subject to the US Mining Law of 1872 and US Department of Agriculture - Forest Service administration management oversight. The property is located in White Pine County, eastern Nevada.

Solitario earned an 80% interest in the project, through its ownership in MH-LLC, upon completion of the Feasibility Study in February 2012. During 2013, Solitario, Ely and DHI revised the MH Agreement and the LOI whereby Solitario made a private placement into Ely of \$1,300,000, the proceeds of which were used by Ely to completely pay off the remaining long-term debt due to Augusta Resource Corporation (“Augusta”), and as of December 31, 2013, Solitario and Ely had no remaining debt owed to Augusta. In addition Solitario, Ely and DHI revised the MH-LLC Agreement whereby Solitario delivered 327,000 shares of its common stock to Ely during 2013 to entirely satisfy its August 2014 payment requirement of \$250,000 and 50,000 shares of Solitario common stock. As of December 31, 2014, Solitario is required to make the payments listed below, pursuant to the MH Agreement and the LOI.

Year	Cash payments to Royalty Owner (1)
2015	\$300,000
2016	\$300,000
2017	\$300,000
2018	\$300,000
2019	\$300,000
2020	\$300,000

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Royalty reduction (6.0% to 2.75% NSR) payment paid prior to commencement of commercial production	\$3,500,000
Royalty reduction (2.75% to 1.00% NSR) payment paid prior to one year after commencement of commercial production	\$1,500,000

(1) Annual minimum advance royalty payments are due on November 19 each year and are shown here only through 2020, but will continue through the end of production.

All construction and permitting costs are shared pro-rata subsequent to the completion of the Feasibility Study. However, DHI may have Solitario contribute DHI's share of costs through commercial completion as a loan, with such loan, plus interest at 8%, being repaid to Solitario from 80% of DHI's share of distributions from MH-LLC. DHI has no balance due to Solitario as of December 31, 2014 as all MH-LLC joint funding expenditures were funded by MH-LLC out of MH-LLC funds during 2013 and 2014.

All currently stated reserves lie within the Centennial Minerals Company LLC ("Centennial") underlying mining lease that currently has a 6.0% Net Smelter Return ("NSR") Royalty, but which allows Solitario to reduce the NSR Royalty from 6.0% to 1.0% by staging cash payments totaling \$5.0 million (see above chart of payments we are required to make) to Centennial. In June 2012, MH-LLC sold a 2.4% NSR royalty to Sandstorm on gold and silver production for \$10 million in cash, in which \$6.0 million was received on signing and the remaining \$4.0 million was received in mid-January 2013. Assuming the 5.0% NSR Royalty is purchased, the effective NSR Royalty rate on the currently defined reserves will be 3.40%, less \$2,000,000 of advance royalties paid as of December 31, 2014.

We are the manager of MH-LLC under the terms of the MH Agreement, which provides that with a few limited exceptions that require unanimous consent, we will control all decisions under the MH Agreement, as a result of our ownership of a majority of the voting membership interests in MH-LLC.

2. Accessibility, Climate, Local Resources, Infrastructure and Physiology

Access to the Mt. Hamilton project is relatively good from either of the two closest towns, Ely or Eureka, Nevada. From Ely, the property is accessed by traveling 45 miles west on paved Highway 50 and then traveling 10 miles south via a County maintained gravel road. From Eureka, the property is accessed by traveling 50 miles east on Highway 50 and then traveling 10 miles south via the County maintained gravel road.

The climate is typical for high-desert, semiarid regions of Nevada with summer high temperatures averaging around 85° F and the winter lows averaging 10° F. Average precipitation is approximately 10 inches per year, and occurs mainly in the winter and spring seasons. Ely, the County Seat of White Pine County, has a population estimated at about 4,000 and offers the most services to the project area, with sufficient housing, schools, hospital and commercial

business capable of servicing the needs of a mine at Mt. Hamilton. KGHM International Ltd. operates the Robinson open pit copper mine with over 500 employees eleven miles east of Ely. Additionally, Eureka, Nevada with a population of about 2,000, offers services and is also host to other mining operations.

With the exception of relatively good road access to the Mt. Hamilton property, and existing water wells with sufficient water to supply most of anticipated processing needs, there is no other infrastructure at the project site. The nearest power line to the property is approximately 11 miles away.

The property lies within the Basin and Range physiographic province of Nevada on the western flanks of the White Pine Mountains and the eastern margin of the topographically flat and broad Newark Valley. The Centennial ore body and Seligman gold deposit, which constitute the main area of interest, are situated at elevations of about 8,600 feet. The location of the proposed heap leach pads is located about one mile southwest of the Centennial gold deposit at an elevation of approximately 7,400 feet in a relatively flat area.

### 3. History

The general area reportedly produced 20 to 40 million ounces of silver and a limited amount of gold from 1868 to 1880 mostly from the Treasure Hill area east of Mt. Hamilton. Phillips Petroleum acquired the property around Mt. Hamilton in 1968 and explored for tungsten, molybdenum and copper. In 1984 Westmont Gold Inc. entered into a joint venture with Phillips and Queenstake Resources Ltd. and commenced a large-scale exploration program focused on gold. In 1993 the property was fully transferred to Westmont. In June 1994 Rea Gold Corp. ("Rea") acquired the property and began production of the NE Seligman deposits in November 1994. Rea mined five small Seligman area deposits to June 1997, when Rea suspended mining. Rea filed for bankruptcy in November 1997.

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In 2002 the US Bankruptcy Trustee abandoned all of the unpatented claims allowing them to lapse for failure to pay the annual maintenance fees. Centennial staked the claims covering the Centennial and Seligman deposits in late 2002, and in 2003 purchased all of the patented and fee lands. Augusta acquired a 100% leasehold interest in the property, subject to an underlying royalty, from Centennial in late-2003. In November 2007, Augusta sold to Ely 100% of the shares of DHI Minerals, Ltd., of which DHI, its wholly-owned subsidiary held the Mt. Hamilton property through the leasehold.

From 2008 through August 2010, Ely engaged SRK Consulting (US), Inc. (“SRK”), an independent full-service mining engineering consulting company, to complete a NI 43-101 compliant Preliminary Economic Assessment Study of the Centennial gold and silver deposit. The study was completed in May 2009, and updated in July 2010. In December 2010 Solitario and DHI signed the MH Agreement and formed MH-LLC, a limited liability company which now holds 100% of the Mt. Hamilton project assets. In February 2012, the Mt. Hamilton Feasibility Study was completed. In October 2014 the Updated Feasibility Study was completed.

#### 4. Geologic Setting

The Mt. Hamilton property is located near the southern end of the Battle Mountain Gold Trend, a northwest-oriented trend that contains several major gold mines as well as dozens of smaller mines and prospects. The property’s underlying geology is dominated by Cambrian-age sedimentary rocks that include the Eldorado Dolomite, Secret Canyon Shale and Dunderberg Shale. The sedimentary sequence has been intruded by two igneous stocks of Cretaceous-age: the Seligman granodiorite stock and the Monte Cristo granite stock, both of which are slightly over 100 million years in age. These two stocks variably altered the surrounding sedimentary rocks by metamorphic processes to skarn (calc-silicate mineral assemblage) and hornfels.

#### 5. Prior Work

Prior to 1968, very little is known about exploration activities on the property. Phillips Petroleum acquired the property in 1968 and drilled over 100,000 feet by the early 1980’s. The focus of Phillips’ work was to evaluate tungsten-molybdenum-copper mineralization in a skarn/porphyry geologic setting. Westmont Gold Inc. from 1984 to 1994 commenced a large-scale exploration program focused on gold. By early 1989, this work defined the NE Seligman deposits and the Centennial deposit. Westmont conducted feasibility and permitting studies from 1990 through 1994. Rea Gold Corp. focused on placing the NE Seligman deposits into production and conducted mining activities from 1994-1997. Augusta completed a limited confirmation drilling program and pre-feasibility related studies on the property from 2003-2007. Ely conducted a limited amount of confirmatory infill drilling in 2008. Solitario and MH-LLC conducted exploration, geotechnical, hydrologic and metallurgical drilling and engineering-environmental evaluations from late-2010 through the end of 2013.

## 6. Mineralization

There are two primary styles of mineralization at Mt. Hamilton: early skarn-hosted tungsten +/- molybdenum +/- copper (“WQ-Mo-Cu”) style, and a later-stage epithermal gold-silver style of mineralization. The likely source for the WO<sub>3</sub>-Mo-Cu skarn mineralization was the Seligman granodiorite stock that is Cretaceous in age (105 million years). Early metasomatic alteration converted shales to hornfels and silty carbonates to calc-silicate skarn.

Epithermal gold mineralization at Mt. Hamilton is controlled by stratigraphy, structure and magmatic hydrothermal alteration. Gold and silver in the Centennial ore body are concentrated along two shallowly dipping sub-parallel faults and associated multiple fracture zones that penetrate a 200 foot thick skarn horizon and provided pathways for hydrothermal fluids. The faulting and fracturing also controlled oxidation of the gold zone. The Centennial gold ore body is a north-south oriented lenticular deposit that is about 2,200 feet long, approximately 1,200 feet wide and ranges from 20 feet to over 350 feet in thickness. Gold and silver mineralization in the Seligman deposit is controlled by both vertical and sub-horizontal structures, resulting in a more complex geometry than at Centennial. The Seligman deposit is approximately 1,500 feet long and 1,000 feet wide. Recent drilling suggests that these two deposits coalesce into a single mineralized body.

## 7. Drilling

The Centennial gold and silver ore bodies have been defined by numerous drilling programs since the 1980's. Recent drilling has demonstrated that the two ore bodies as previously delineated are actually a single continuous mineralized zone. The existing resources of the two deposits, now collectively referred to as the Mt. Hamilton ore body are currently defined by an 857 drill-hole data base incorporating 318,000 feet of drilling of which approximately 255 is reverse circulation (“RC”) drill holes and the remainder is core drilling. Core recoveries average in excess of 90%, with few exceptions.

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Drill data included in resource and reserve modeling by SRK utilized historical data generated by Phillips Petroleum, Westmont Gold Inc. and Rea Gold. SRK concluded, with confirmatory drilling by both Ely and Solitario, that the data from all three previous operators of the project to be valid and sufficiently well documented to provide a reasonable representation of the Centennial gold deposit and sufficiently verifiable for use in a mineral resource estimate and classification of resources in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves: Definitions and Guidelines, dated November 27, 2010 and valid for reserve estimation in accordance with SEC-Guide 7 guidance. Solitario completed three rounds of infill and extension drilling, as well as geotechnical, metallurgical and hydrologic drilling for feasibility-related issues from 2010-2014.

8. Sampling, Analysis and Sample Security

SRK reviewed in detail procedures utilized by all prior managers of the project for drill hole sampling methods, including RC and core splitting, and sample preparation and analyses, including check assay procedures and qualifications of the laboratories used for assay analyses. Methodology used by previous project managers included check assays by a second laboratory, insertion of standard and duplicate samples to the assay lab, and photography of core samples. SRK also undertook an independent evaluation to verify data. This program consisted of field verifications, independent assay analysis, comparison of electronic drill-hole data to paper data, and checking the electronic assay database against original assay certificates.

SRK opined that the sampling and analyses methodology utilized for both RC and core drilling were appropriate for the style of mineralization at both the Centennial and Seligman gold deposits and of sufficient quality to incorporate into a NI 43-101 compliant resource estimate. Furthermore, SRK believes the Centennial-Seligman gold deposit drill hole assay database has been verified with substantial QA/QC checks, by both the original project managers and SRK's independent work, including the location of drill cuttings, core, analytical laboratory assay certificates, and that all aspects of the database are satisfactory for use in resource and reserve estimation.

Because much of the work at Mt. Hamilton was conducted prior to chain-of-custody/sample security methodology becoming an integral part of standard industry practice quality control procedures, it is difficult to assess pre-1998 sample security. However, Solitario believes that no serious sample security breaches occurred or are known to have occurred based upon other sample quality control procedures that all past project managers employed, such as splitting of core and splitting of RC course rejects and pulp samples to allow for subsequent new independent assay verification.

9. Feasibility Study

Solitario engaged SRK to complete the Feasibility Study on the Centennial gold and silver deposit located on the Mt. Hamilton property in November 2010. The Feasibility Study was completed in February 2012. On October 20, 2014, we announced the completion of the Updated Feasibility Study. The Updated Feasibility Study includes the Seligman deposit in the reported Resources and Reserves in addition to the Centennial deposit. The Updated Feasibility Study projects positive economic returns under a recommended development plan by conventional open pit mining followed by crushing and then heap leach processing for both gold and silver. Realized gold/silver prices are assumed to be \$1,300/\$20 per ounce for the life-of-mine of the project.

The Updated Feasibility Study assumes the following mining methods. Mining within the open pit will be conducted on 10 or 20-foot high benches with a 50° high wall. Mining will utilize five to seven 100-ton haul trucks and a 20 cubic yard shovel and 15 cubic yard loader for loading. The waste to ore ratio is 2.4 tons waste to 1.0 ton ore. Non-mineralized rock will be hauled to a permanent storage area centrally located to the northwest of the Centennial pit. Ore will be hauled from the two pits to the primary crusher located on the southwestern edge of the Centennial pit. After crushing to minus-4 inch, the ore will be dropped down a 415-foot vertical shaft onto a 4,400-foot long underground conveyor. Just outside the conveyor tunnel the ore will then be fed into a secondary crusher that crushes the rock to 80% passing minus-¾ inch. From the secondary crusher the ore will be conveyed 500 to 1,000 feet to the heap leach pad where it will be stacked and then subjected to a weak-cyanide solution that dissolves the gold and silver. The solution from the heap leach will be piped to a standard ADR-processing plant where the precious metals are recovered by a conventional carbon tank circuit. A gold-silver doré will be produced on the property and periodically shipped to a refiner. The Updated Feasibility Study also developed a comprehensive reclamation plan designed to conform to current environmental regulations.

(table of contents)10. Mineral Proven and Probable Ore Reserves

We reported (October 20, 2014) the following mineral reserves at our Mt. Hamilton project from the Updated Feasibility Study:

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

Reserve Category	Tons (000's)	Gold Grade oz/t	Silver Grade g/tonne	Contained Metal of ounces)		(1,000's)	
				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	4,213.8
Proven & Probable	<b>22,500</b>	<b>0.024</b>	<b>0.83</b>	<b>0.198</b>	<b>6.80</b>	<b>545.4</b>	<b>4,459.6</b>

- Production Rate: 10,000 tons ore per day;
- Mine Life: 6.5 years;
- 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;
- Gold recovery 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.

Proven and probable reserves were determined by the use of mapping, drilling, sampling, assaying and evaluation methods generally applied in the mining industry, as more fully discussed below. The term “reserve,” as used in the reserve data presented here, means that part of a mineral deposit that can be economically and legally extracted or produced at the time of the reserve determination. The term “proven reserves” means reserves for which (1) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; (2) grade and/or quality are computed from the results of detailed sampling; and (3) the sites for inspection, sampling and measurements are spaced so closely and the geologic character is sufficiently defined that size, shape, depth and mineral content of reserves are well established.



The term “probable reserves” means reserves for which quantity and grade are computed from information similar to that used for proven reserves but the sites for sampling are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven reserves, is high enough to assume continuity between points of observation. Our reserve estimates are based on the latest available geological and geotechnical studies. In the future, we may periodically conduct studies of our ore bodies to optimize economic values and to manage risk. We may revise our mine plans and estimates of recoverable proven and probable mineral reserves as required in accordance with the latest available studies and commodity price assumptions.

Mineral reserves were estimated from an engineered pit design based on \$1,300/oz. gold and \$20/oz. silver prices, which at the time were approximately the average prices of gold and silver over a three-year look-back period. The cutoff grade used to estimate reserves was 0.006 oz/t gold equivalent (0.20 grams/tonne) and is the internal cutoff grade. Equivalent gold grade was calculated using a 65:1 silver to gold ratio. The reserves were limited to a total volume of 22.5 million tons as constrained by the capacity of the permitted leach pad. Multiple pit scenarios were evaluated using these criteria under a range of gold prices to determine the most favorable pit design for both optimal resource extraction and cash flow.

#### 11. Mining Operations

No mining operations have occurred on the project within the past 15 years.

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12. Permitting

In November 2012 MH-LLC filed the Centennial-Seligman Mine Plan of Operations (“PoO”) with the USFS – Humbolt-Toiyabe National Forest for the operation of a gold and silver mine at Mt. Hamilton. The PoO describes the activities and facilities that are proposed on USFS administered lands. The USFS is the primary regulatory agency responsible for managing the permitting process on federal land. The major components described in the PoO are mining activities from two open pits (the Centennial and Seligman deposits), a waste disposal area, ore stockpiles and crushing facilities, a mine operations office, truck shop facilities, access and haul roads, exploration drill roads, power lines and a water supply well and associated infrastructure. Total proposed surface disturbance on USFS lands is currently estimated at 476 acres. During 2014 MH-LLC received a Decision Notice and finding of no significant Impact (“FONSI”) related to our permitting the Mt. Hamilton Project under an Environmental Assessment (“EA”) with the United States Forest Service (the “Forest Service”), effectively completing the requirements of the National Environmental Policy Act.

In addition to the proposed mining activities on USFS land, Solitario received a right of way from the Bureau of Land Management (BLM) for road access to planned infrastructure facilities constructed on private land owned by MH-LLC. The BLM granted the access road right of way in January 2014. We have received three of four significant permits filed with Nevada Division of Environmental Protection (“NDEP”); these include the Water Pollution Control Permit for the mine and two Nevada Reclamation Permits for both private and public lands. We are awaiting approval of the Air Quality Permit for the overall project from the NDEP. Additionally, a Class III Survey Report and the Recovery (mitigation) Report for archeological and historical resources were submitted to the USFS and the State Historical Preservation Office for review and comment, and these documents were subsequently approved in the first quarter of 2015.

The Company’s goal is to receive approval for the Air Quality Permit early in the second quarter of 2015 and to arrange project financing during the first half of 2015. Construction could begin in the second half of 2015, pending successful completion of all financing activities. However, estimating when project financing will be completed is difficult, at best, and there can be no assurance of when, if ever, financing will be completed to allow construction to begin.

13. Planned Exploration, Development and Permitting

Solitario’s focus for 2015 is to complete financing and detailed engineering with a goal to initiate construction in the second half of 2015. Construction startup is dependent upon receiving the Air Quality permit as well as several minor local and state permits and securing project financing none of which are currently in place. No exploration activities are planned for 2015 at the Mt. Hamilton project.

## **Bongará Zinc Project (Peru)**

### 1. Property Description and Location

The Bongará project consists of 16 concessions comprising 12,600 hectares of mineral rights granted to Minera Bongará S.A., a subsidiary of ours incorporated in Peru. The property is located in the Department of Amazonas, northern Peru. On August 15, 2006 Solitario signed a Letter Agreement with Votorantim on Solitario's 100%-owned Bongará zinc project. On March 24, 2007, Solitario signed a definitive agreement, the Framework Agreement for the Exploration and Potential Development of Mining Properties, (the "Framework Agreement") pursuant to, and replacing, the previously signed Bongará Letter Agreement with Votorantim. Solitario's and Votorantim's property interests are held through the ownership of shares in Minera Bongará S.A., a joint operating company that holds a 100% interest in the mineral rights and other project assets. Solitario currently owns 100% of the shares in Minera Bongará S.A.

Subsequent to December 31, 2014, Solitario announced that Votorantim Metais Cajamarquilla, S.A., a wholly owned subsidiary of Votorantim Metais (both companies referred to as "Votorantim") had completed the steps required to earn a 61% interest in the Bongará project, with Solitario retaining a 39% interest. In addition Solitario consented to the transfer of Votorantim's interest in both the Bongará and Chambara projects to Compañía Minera Milpo S.A.A. ("Milpo"). Milpo, an affiliate of Votorantim, is traded on the Lima exchange under the symbol MILPOCI.

Milpo can earn an additional 9% interest (up to a 70% shareholding interest) in the joint operating company, Minera Bongará S.A. by funding future annual exploration and development expenditures until a production decision is made or the agreement is terminated. The option to earn the 70% interest can be exercised by Milpo at any time by committing to place the

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project into production based upon a completed feasibility study. Milpo is the project manager. Once Milpo has committed to place the project into production based upon a feasibility study, it has further agreed to finance Solitario's 30% participating interest through production through a loan facility from Milpo to Solitario. Solitario will repay this loan facility through 50% of Solitario's cash flow distributions from the joint operating company.

According to Peruvian law, concessions may be held indefinitely, subject only to payment of annual fees to the government. In June 2015 payments of approximately \$95,000 to the Peruvian government will be due in order to maintain the mineral rights of Minera Bongará. Milpo is responsible for paying these costs as part of its work commitment. Peru also imposes a sliding scale net smelter return royalty (NSR) on all precious and base metal production of 1% on all gross proceeds from production up to \$60,000,000, a 2% NSR on proceeds between \$60,000,000 and \$120,000,000 and a 3% NSR on proceeds in excess of \$120,000,000.

As part of the transfer from Votorantim, Milpo acquires the surface rights agreement with the local community, which controls the surface of the primary area of interest of our Bongará joint venture. This agreement provides for an annual payment of approximately \$85,000 and funding for mutually agreed social development programs in return for the right to perform exploration work including road building and drilling. From time to time Votorantim has entered into surface rights agreements with individual landowners or communities to provide access for exploration work. Generally, these are short-term agreements.

Environmental permits are required for exploration and development projects in Peru that involve drilling, road building or underground mining. The requisite environmental and archeological studies were completed for all past work, but new studies are ongoing to allow for the expanded activities planned for future years. Although we believe that these permits will be obtained in a timely fashion, the timing of government approval of permits remains beyond our control.

2. Accessibility, Climate, Local Resources, Infrastructure and Physiology

The Bongará property is accessed by the paved Carretera Marginal road, which provides access from the coastal city of Chiclayo. The nearest town is Pedro Ruiz located 15 kilometers southeast of the property, and the Carretera Marginal, a heavily travelled national highway, is situated approximately eight kilometers south of the deposit. The area of the majority of past drilling and the most prospective mineralization, Florida Canyon, is currently inaccessible by road, the work to date having been done by either foot or helicopter access. Votorantim had previously completed approximately 26 kilometers of road work out of a planned 38 kilometers of access road construction. Milpo plans to complete most of the remaining access road construction in 2015. Milpo maintains project field offices in Pedro Ruiz and a drill core processing facility and operations office in the nearby community of Shipasbamba. The climate is tropical and the terrain is mountainous and jungle covered. Seasonal rains hamper exploration work for four to five months of the year by limiting access. Several small villages are located within five kilometers of the drilling area.

### 3. History

We discovered the Florida Canyon mineralized zone of the Bongará Project in 1996. Subsequently, we optioned the property in December 1996 to Cominco (now Teck Resources). Cominco drilled 80 core holes from 1997-2000. Cominco withdrew from the joint venture in February 2001, and Solitario retained its 100% interest in the project. We maintained the claims from 2001 to 2006, until the Votorantim Letter Agreement was signed. Votorantim conducted surface drilling on an annual basis from 2006 to 2013 and underground tunneling and drilling from 2010 to 2013. All significant work on the property has been conducted by our joint venture partners: Cominco, Votorantim and now Milpo, which is described below in Section 5, "Prior Exploration."

### 4. Geological Setting

The geology of the Bongará area is relatively simple consisting of a sequence of Jurassic and Triassic clastic and carbonate rocks which are gently deformed. The Mississippi Valley type zinc-lead mineralization occurs in the carbonate facies of the Chambara (rock) Formation. This sedimentary sequence is part of what is referred to as the Pucura Group that hosts mineral deposits throughout Peru.

### 5. Prior Exploration

We conducted a regional stream sediment survey and reconnaissance geological surveys leading to the discovery of the Florida Canyon area in 1996. The discovered outcropping mineralization is located in two deeply incised canyons within the limestone stratigraphy.

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Subsequent to our initial work, Cominco conducted extensive mapping, soil and rock sampling, stream sediment surveys and drilling. This work was designed to determine the extent and grade of the zinc-lead mineralization, the controls of mineral deposition and to identify areas of potential new mineralization. Votorantim began work in the fall of 2006 and has worked continuously on the project since. All work performed by us, Cominco or Votorantim was done by direct employees of the respective companies with the exception of the drilling, underground tunneling, helicopter services and road building, all of which were performed by third-party contractors under the direction of Cominco or Votorantim.

6. Mineralization

Mineralization occurs as massive to semi-massive replacements of sphalerite and galena localized by specific sedimentary facies (rock strata) within the limestone stratigraphy and by structural feeders and karst breccias. A total of eleven preferred beds for replacement mineralization have been located within the middle unit of the Chambara Formation. Mineralization is associated with the conversion of limestone to dolomite, which creates porosity and permeability within the rock formations, promoting the passage of mineralizing fluids through the rock formations forming stratigraphically controlled near-horizontal manto deposits and structurally controlled near-vertical replacement deposits. Drilling of stratigraphic targets has shown that certain coarser-grained facies of the stratigraphy are the best hosts for mineralization.

Karst features are localized along faults and locally produce "breakout zones" where mineralization may extend vertically across thick stratigraphic intervals along the faults where collapse breccias have been replaced by ore minerals. Mineralized karst structures are up to 50 meters in width (horizontal), up to 100 meters vertically, and hundreds of meters along strike.

Evidence for these breakout zones is provided by the following drill holes from various locations on the property:

Breakout Zone Name	Drill Hole Number	Intercepts (meters)	Zinc %	Lead %	Zinc+Lead %
Sam	GC-17	58.8	12.0	2.8	<b>14.8</b>
	FC-23	81.5	4.8	0.8	<b>5.6</b>
Karen	A-1	36.2	12.8	2.7	15.5
North Zone	V-21	92.0	5.5	1.7	7.2
South Zone	V-44	28.3	15.2	0.8	<b>16.0</b>
	V-169	51.6	7.1	0.7	<b>7.8</b>
San Jorge	V-297	56.6	22.69	1.15	23.84

Stratigraphically controlled mineralization is typically one to several meters in thickness, but often attains thicknesses of five to ten meters. Generally the stratigraphic mineralization, while thinner, is of higher grade and laterally more

extensive.

Dolomitization reaches stratigraphic thicknesses in excess of 100 meters locally. This alteration is thought to be related to the mineralizing event in most cases and is an important exploration tool. Continuity of the mineralization is demonstrable in areas of highest drilling density by correlation of mineralization within characteristic sedimentary facies typical of specific stratigraphic intervals or within through-going observable structural zones in drill core.

## 7. Drilling

From 1997 through 2001, Cominco drilled 80 surface core holes totaling 24,696 meters. From 2006-2013, Votorantim completed 309 surface core holes totaling 77,193 meters. From 2011-2013, Votorantim completed 95 underground core holes totaling 15,144 meters. The majority of Votorantim's surface drilling was infill drilling designed to demonstrate the continuity and geometry of mineralization, and to a lesser extent, test for extensions of known mineralization. The underground drilling was conducted from 10 drill stations at generally 40-meter centers (two drill stations at 20-meter centers) and entirely within the San Jorge mineralized zone. Anywhere from three to fourteen holes were drilled from each of the eight drill stations. The underground drilling was tightly spaced and designed to allow for feasibility-level reserve estimation.

All drilling conducted is within a footprint measuring approximately 2.5 kilometers long in a north-south direction and a little over a kilometer in an east-west direction. The entire drill pattern is within what we have informally labeled the Florida Canyon district. Within this district, several zones of strong zinc mineralization have been defined. The two zones with the most amount of drilling are the San Jorge and the Karen-Milagros zones. Drilling indicates that, for the most part, the entire Florida Canyon district remains open to expansion.

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8. Sampling, Analysis and Security of Samples

Core samples were transported from the drill by helicopter in sealed boxes to the processing facility in Shipasbamba where they were split by a diamond saw. Half of the core was taken of intervals selected according to geologic criteria under the supervision of the geologist in charge and shipped in sealed bags by land. Cominco used SGS Laboratories and Votorantim used ALS-Chemex, both in Lima, Peru, where all samples were analyzed by ICP. Any samples that contained greater than 1% zinc were then analyzed by wet chemistry assay for zinc and lead to provide a more accurate analysis of grade.

Since August 2006, Votorantim has been in control of all field activities on the project and is responsible for the security of samples. Votorantim has indicated to us that there have been no breaches in the security of the samples. We have reviewed Votorantim's sampling procedures and believe that adequate procedures are in place to ensure the future security and integrity of samples. No breaches of security of samples are known to have occurred prior to Votorantim's work on the project.

9. Pre-Feasibility Studies

Votorantim, either through its engineering staff, or contracted independent mining engineering firms has conducted prefeasibility-level studies to provide estimates of deposit size and grade, sizing of appropriate scale of operations, infrastructure design, and capital and operating cost estimates on a scoping level of detail. Votorantim has engaged an independent metallurgical testing firm to evaluate metal recoveries and various processing options for mineralized material at Florida Canyon. Tests to date indicate zinc recoveries of 91.8% and lead recoveries of 81.9% in the San Jorge zone and zinc recoveries of 80.3% and lead recoveries of 71.7% in the Karen-Milagros zone. Recovery optimization will continue in 2015.

In 2013, Votorantim drilled 16 diamond core holes evaluating geotechnical and hydrological parameters of the mineralized areas for both engineering and environmental purposes. Votorantim also completed detailed geology-mineralization modeling to develop an internal resource estimate as part of their ongoing pre-feasibility efforts. Additionally, Votorantim completed scoping-level infrastructure design and costing analysis for the project. Milpo plans to complete a pre-feasibility study by the end of 2015.

10. Reserves and Resources

There are no reported mineral reserves.



## 11. Mining Operations

No commercial mining operations to recover metals have occurred on the project. However, in September 2010 Votorantim initiated an underground tunneling program to access mineralization. As of December 31, 2014, 700 meters of tunneling were completed.

## 12. Planned Exploration and Development

Work in 2015 will focus on activities necessary to complete a prefeasibility study and then to transition to feasibility-level work for 2016. Milpo is planning to complete approximately 8km of access road during 2015,

### **Pedra Branca Platinum-Palladium Metals Project (Brazil)**

The Pedra Branca platinum-palladium (“PGM”) project consisted of 57 exploration concessions totaling approximately 70,000 hectares in Ceará State, Brazil. The property is held 100% by Pedra Branca do Mineração S.A. (“PBM”), a Brazilian entity. We hold a 49% interest in PBM and Anglo Platinum Ltd. (“Anglo”) owns a 51% interest as of December 31, 2013. Eldorado Gold Corporation is entitled to a 2% NSR royalty on 10 of the concessions totaling 10,000 hectares.

On January 28, 2003, we entered into a Letter Agreement with Anglo whereby Anglo could earn various incremental interests in PBM up to a 65% interest. On July 14, 2006, we signed the Pedra Branca Framework Agreement with Anglo that specified actions we and Anglo would take to establish and govern PBM, and the mechanics for Anglo's continued funding of Pedra Branca operations. On April 24, 2007, we signed the definitive Shareholders Agreement with Anglo for the exploration and development of the Pedra Branca Project.

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Anglo earned a 51% interest in PBM by funding \$7.0 million as of July 21, 2010. Anglo can earn an additional 9% interest in PBM (for a total of 60%) by completing either (i) a bankable feasibility study or (ii) spending an additional \$10.0 million on exploration or development, whichever comes first. Anglo can also earn an additional 5% interest in PBM (for a total of 65%) by arranging for 100% financing to put the project into commercial production. In 2012 Anglo assumed management of all administrative and operational functions at PBM. Previously, Solitario was the project manager.

Access to the project is by paved road from the deep-water port city of Fortaleza and by local farm roads. Local access is constructed where necessary. The largest towns in the immediate vicinity of the project are Pedra Branca and Boa Viagem. A field camp is located at the small community of Capita Mor. The climate is warm and dry for eight months of the year with a warm wet season prevailing for the remaining four months (December-March). Year-round operations can be conducted. The topography is rolling to flat and vegetation is sparse to heavy brush. The elevation ranges from 500 to 800 meters.

From July 2001 until late 2002, we conducted geochemical sampling and geophysical surveys and independently drilled 22 diamond drill holes. From January 2003 to date, Anglo has funded eight drilling programs that focused on better defining the Esbarro and Curiu deposits, further testing the Cedro, Trapia and Santo Amaro prospects, and initial drill testing of 20 other target areas. Through the end of 2014, a total of 360 holes totaling 29,860 meters of core drilling were completed on the project. The Esbarro prospect, with 107 holes, has the largest database of information of the drilled prospects. Drilling was conducted on approximately 30 to 50-meter spaced centers. The Curiu prospect is the second most detailed prospect drilled with 50 holes completed to date. Drilling was conducted on generally 25-meter spaced centers. Additional drill holes have been completed at Santa Amaro, at Trapia I, at Trapia West and on the Cedro I through Cedro IV prospects. Drill spacing on these latter prospects range from 50 to 200 meters. During 2013 Anglo completed a helicopter borne geophysics program to delineate drill targets. Although significant mineralized material was encountered in many of the drill holes within these nine deposits, PBM has not undertaken a formal estimate of reserves or resources as PBM believes additional work is required to make such an estimate.

After consideration of the results of the most recent drilling programs, subsequent to December 31, 2014, Anglo decided to place the Pedra Branca project on care and maintenance and will look for a joint venture partner for the project.

**Pachuca Norte Silver-Gold Property (Mexico)**

As December 2014, the Pachuca Norte property (formerly referred to as "Pachuca-Real") consisted of approximately 19,048 hectares of mineral rights encompassing about 10% of the historic Pachuca Norte del Monte silver-gold mining district of central Mexico, but mainly areas situated to the north and northwest of the historic district, termed the North District, and areas east of the historic district. In March 2013 we signed a binding Letter of Intent with Minera Hochschild Mexico S.A. de C.V. ("Hochschild"), a wholly owned subsidiary of Hochschild Mining plc. In June 2013, a definitive joint venture agreement was signed that provides for Hochschild to earn a 51% interest in the

property. During 2014 Hochschild completed an 18-hole core drilling program totaling 5,573 meters. Highlights of this drilling program (intercepts grading better than 100 grams per tonne silver equivalent, or better) are presented in the table below.

### Pachuca Norte Drilling Highlights

Drill Hole Number	Intercept* (meters)	Starting At (meters)	Gold (g/t)	Silver (g/t)	Silver Equiv.** (g/t)
DDHPA13-02	0.60	177.60	6.21	520.0	892.6
DDHPA13-05	1.10	272.90	0.83	64.3	114.1
DDHPA14-10	0.28	355.97	0.61	79.2	115.8
DDHPA14-11	0.30	178.55	1.01	88.0	148.6
DDHPA14-13	0.90	246.10	0.01	256.0	256.0
and	0.80	263.85	6.57	392.0	786.2
DDHPA14-15	1.15	86.35	1.16	57.4	126.7
DDHPA14-16	0.82	22.21	2.11	41.6	168.2
and	1.52	62.27	1.65	72.0	170.9
DDHPA14-18	2.80	250.90	1.40	68.8	152.8

\* True width has not been calculated for each individual intercept, but true width is generally

estimated at 60%-75% of drilled width;

\*\* Silver Equivalent (AuEq) was calculated using a Ag: Au ratio of 60: 1

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During 2014 Hochschild elected to terminate their option to earn an interest in the project and we significantly reduced our landholdings at Pachuca and recorded a mineral property write-down of \$20,000. We are reviewing the results of the 2014 program, as well as previously generated data, and will decide whether to continue independent exploration, seek a new joint venture partner, or abandon the project.

**Chambara Zinc Property (Peru)**

In April 2008, we signed the Minera Chambara shareholders agreement with Votorantim Metais Cajamarquilla, S.A., a wholly owned subsidiary of Votorantim Metais (both companies referred to as "Votorantim") for the exploration of a large area of interest in northern Peru measuring approximately 200 by 85 kilometers. Votorantim is the project manager, and funds and conducts all exploration on the project. Votorantim contributed 52 mineral concessions within the area of interest totaling 52,000 hectares to Minera Chambara for a 15% interest in Minera Chambara. We contributed 9,600 hectares of mineral claims and certain exploration data in our possession for an 85% interest in Minera Chambara. Existing and future acquired properties subject to the terms of the shareholders agreement will be held by Minera Chambara. In November 2013, Minera Chambara dropped selected concessions, resulting in Minera Chambara now holding 82 concessions totaling 71,000 hectares of valid concessions. As of December 31, 2014, Minera Chambara's only assets are the properties and Minera Chambara has no debt. Votorantim may increase its shareholding interest to 49% by completing future spending of \$6,250,000, and may further increase its interest to 70% by funding a feasibility study and providing for construction financing for Solitario's interest. If Votorantim provides such construction financing, we would repay that financing, including interest, from 80% of Solitario's portion of the project cash flow.

In 2010 Votorantim placed the project on care and maintenance, focusing all of their efforts on the Bongará project. The only field work conducted in 2014 and planned for 2015 is social work in preparation for any future exploration programs. In June 2015 payments of approximately \$353,000 to the Peruvian government will be due by Votorantim in order to maintain the mineral rights. Votorantim is responsible for making these payments. In January 2015, Solitario consented to the transfer of Votorantim's interest in the project to Milpo. As of the end of March 2015, the transfer of Votorantim's interest had not yet been completed.

**Newmont Alliance (Peru)**

On January 18, 2005, we signed a Strategic Alliance Agreement (the "Alliance Agreement") with Newmont Overseas Exploration Limited ("Newmont"), to explore for gold in South America (the "Strategic Alliance"). Concurrent with the signing of the Alliance Agreement, Newmont Mining Corporation of Canada purchased 2.7 million shares of Solitario (at the time, an approximately 9.9% equity interest) for Cdn\$4,590,000. As part of the Alliance Agreement we spent \$3,773,000 on exploration on Strategic Alliance areas covered by the Alliance Agreement. Under the terms of the Alliance Agreement, we granted Newmont a 2% net smelter royalty on five properties ("Strategic Alliance Properties") that fall within Strategic Alliance areas. If we meet certain minimum exploration expenditures on Strategic

Alliance Properties, Newmont will have the right to joint venture acquired properties and earn up to a 75% interest by taking the project through feasibility and financing Solitario's retained 25% interest into production. Newmont may elect to earn a lesser interest or no interest at all, in which case it would retain its 2% net smelter return royalty.

As of December 31, 2014 we retain 100%-interest in the La Promesa project which is the only remaining property which falls within the Strategic Alliance area and is subject to the provisions of the Newmont Alliance as discussed above.

### La Promesa

The La Promesa property, acquired in 2008, consists of three concessions totaling 2,600 hectares. Our only holding costs for the mineral rights are annual payments of three dollars or nine dollars per hectare, depending on the age of the claims, to the Peruvian government. Total holding costs in 2015 will be approximately \$17,000. In February 2012 Newmont waived its right to joint venture La Promesa and allowed us to potentially joint venture the project with another company. During 2015 we hope to secure a joint venture partner to advance the project.

At least five high-grade polymetallic veins have been identified and sampled at surface. Two of the veins, about 300 meters apart, have been traced for at least 400 meters along strike. There appears to be a systematic trend towards greater vein thickness with depth, as the widest observed vein in outcrop occurs at the lowest elevation sampled to date. Channel sampling along 300 meters of strike length from the best exposed vein yielded the following high-grade results:

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Chip Channel #	True Width	Silver gpt	% Zinc	% Lead	Indium gpt
A	2.8	758	19.4	7.2	153
B	1.1	181	21.0	2.4	190
C	0.5	433	10.5	6.3	23
D	0.4	458	10.2	10.8	15
E	1.0	346	5.9	3.4	27
F	1.2	1975	33.1	5.6	430

**Royalty Properties****Yanacocha Royalty Property (Peru)**

The Yanacocha royalty property consists of 69 concessions totaling approximately 61,000 hectares in northern Peru, 25 kilometers north of the city of Cajamarca. The property position consists of a rectangular-shaped contiguous block of concessions nearly 50 kilometers long in an east-west direction and 25 kilometers wide in a north-south direction. The southern boundary of the royalty property abuts Newmont Mining Corporation's Minera Yanacocha mining operation, a large gold mine currently in operation. We held 100% interest in the concessions until April 2000, at which time we signed an agreement with Newmont Peru, Ltd., a wholly-owned subsidiary of Newmont Mining Corporation (both companies referred to as "Newmont"), whereby we sold our Yanacocha Property to Newmont for \$6,000,000 and retained a sliding scale net smelter return royalty ("NSR-Royalty") that varied from two to five percent, depending on the price of gold.

In January 2005 we signed an Amended and Restated Royalty Grant with affiliates of Newmont Peru, Ltd., ("Newmont Peru") to modify the NSR-Royalty schedule. The modified royalty structure is classified into several categories, depending on the type of process used to recover each metal, gold price and copper price, as well as any government royalty burden imposed by Peru on the project ores. Assuming the current maximum royalty due the government of Peru and gold prices above \$500 per ounce, our gold royalty ranges from 1% to 2¾%, our silver royalty would be 2% and our copper royalty would be 1%. No resources or reserves have been reported by Newmont, nor has any mining been conducted on the property.

**Mercurio (Surubim) Gold Property (Brazil)**

The Mercurio gold property is located in Para State in Northern Brazil, approximately 250 km south of the town of Itaituba. It consists of three exploration concessions totaling 8,476 hectares. In November 2013, we agreed to transfer its rights to the property to Brazilian Resources Inc. ("BRI") subject to a NSR Royalty due us of 1.5% on the first 2 million ounces of gold produced at Mercurio and 2.0% on all ounces of gold produced over 2 million ounces of gold, providing that BRI make certain payments and complete certain exploration commitments. As of December 31, 2014,

one remaining joint venture payment of \$650,000 is due upon the grant of a mining concession over an existing exploration concession at Mercurio by the DNPM. BRI has applied to the DNPM for this mining concession; however there is no assurance that the DNPM will grant the concession. BRI is responsible for all payments to keep the Mercurio claims in good standing during the period of the agreement. With exception of small scale artisanal mining for gold by gravity methods that has been conducted on the property for the past 15 years, there are no mining operations on the property. BRI issued a news release during 2013 that estimated resources on the property. BRI refers to the project as the Surubim project.

#### **Norcan and Aconchi Copper Properties (Mexico)**

In June 2010 we applied for mineral rights to the Norcan Copper property located north of the Cananea mine, a major copper producer, in the State of Sonora, Mexico. We received title to two concessions totaling 35,991 hectares in 2012. Geochemical and biogeochemical surveys in this area exhibit locally anomalous copper values. Most of the area is covered by recent gravel deposits, but in several areas moderately to strongly altered intrusive rocks have been mapped. The 8,200-hectare Aconchi property in northern Sonora, Mexico, was acquired in October 2010. It is an early-stage property that displays copper and other trace element anomalies in soils. Most of the area is covered by pediment gravels.

Subsequent to December 31, 2014, we entered into an option agreement for our Norcan and Aconchi properties with Minera Cuicuilco S.A de C.V, a Mexican indirect subsidiary of Freeport-McMoRan Inc. Terms of the Agreement with Cuicuilco provide for exploration expenditures of \$5,000,000 to earn a 100% interest in the properties of which a firm commitment of \$750,000 is required during the first year. If Cuicuilco completes its earn-in then Solitario retains a 1.5% net smelter return royalty which may be purchased for \$20,000,000.

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## **100%-Owned Properties**

### **Canta Colorado Gold Property (Peru)**

In 2012 we applied for two exploration concessions totaling 2,000 hectares. Reconnaissance surface exploration indicates this property has the potential to host an epithermal gold deposit in Tertiary volcanic rocks. No work is planned on this property for 2015

### **Discontinued Projects**

During 2014 we reduced our holdings at our Pachuca property in Mexico and recorded a mineral property write-down of \$20,000. During 2013 we abandoned the Cerro Azul and Atico projects in Peru and recorded a mineral property abandonment write-down of \$8,000 and we abandoned the Jaripo project in Mexico and recorded a mineral property abandonment write-down of \$5,000.

## **GLOSSARY OF MINING TERMS**

“**Amphibolite**” means a metamorphic rock composed chiefly of amphibole and plagioclase and having little or no quartz.

“**Assay**” means to test minerals by chemical or other methods for the purpose of determining the amount of valuable metals contained.

“**Bankable feasibility study**” means a comprehensive study of a mineral deposit in which all geological, engineering, legal, operating, economic, social, environmental and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production.

“**Breccia**” means rock consisting of fragments, more or less angular, in a matrix of finer-grained material or of cementing material.

“**Claim or Concession**” means a mining interest giving its holder the right to prospect, explore for and exploit minerals within a defined area.

“**Clastic**” means pertaining to rock or rocks composed of fragments or particles of older rocks or previously existing solid matter; fragmental.



“**Deposit**” means an informal term for an accumulation of mineral ores.

“**Development**” means work carried out for the purpose of opening up a mineral deposit and making the actual ore extraction possible.

“**Dolomite**” means calcium magnesium carbonate,  $\text{CaMg}(\text{CO}_3)_2$ , occurring in crystals and in masses.

“**Facies**” means the appearance and characteristics of a sedimentary deposit, especially as they reflect the conditions and environment of deposition and serve to distinguish the deposit from contiguous deposits.

“**Fault**” means a fracture in rock along which there has been displacement of the two sides parallel to the fracture.

“**Felsic**” means rocks consisting chiefly of feldspars, quartz and other light colored materials.

“**Granodiorite**” means a coarse-grained acid igneous rock which is intermediate in composition between granite and diorite.

“**gpt**” means grams per tonne.

“**Heap leach**” means a gold extraction method that percolates a cyanide solution through ore heaped on an impervious pad or base.

“**Hornfels**” means a fine-grained metamorphic rock, the result of recrystallization of siliceous or argillaceous sediments by contact metamorphism.

“**Karst**” means a landscape that is characterized by the features of solution weathering and erosion in the subsurface. These features include caves, sinkholes, disappearing streams, subsurface drainage and deeply incised narrow canyons.

“**Mafic**” means silicate minerals or rocks that are rich in magnesium and iron. Most mafic minerals are dark in color with a high density.

“**Manto deposits**” means replacement orebodies that are stratabound, irregular to rod shaped ore occurrences usually horizontal or near horizontal in attitude.

“**Metasomatic**” means rocks that form from a series of metamorphic processes whereby chemical changes occur as a result of the introduction of material, often in hot aqueous solutions, from external sources.

“**Mineralization**” means the concentration of metals within a body of rock.

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“**NSR**” means net smelter return royalty.

“**Olivine**” means a group of magnesium iron silicates, ( $MgFeSiO_4$ ), occurring in olive-green to gray-green masses as an important constituent of basic igneous rocks.

“**opt**” or “**oz/ton**” means ounces per ton.

“**Ore**” means material containing minerals that can be economically extracted.

“**Ounce**” means a troy ounce.

“**Oxide**” means mineralized rock in which some of the original minerals have been oxidized (*i.e.*, combined with oxygen). Oxidation tends to make the ore more porous and permits a more complete permeation of cyanide solutions so that minute particles of gold in the interior of the minerals will be more readily dissolved.

“**Patented mining claim**” means a mining claim for which the federal government of the United States has passed its title to the claimant, making it private land. A person may mine and remove minerals from a mining claim without a mineral patent. However, a mineral patent gives the owner exclusive title to the locatable minerals. It also gives the owner title to the surface and other resources.

“**Phyllites**” means a slate-type rock, the cleavage planes of which have a luster imparted by minute scales of mica.

“**Reserves**” or “**ore reserves**” means that part of a mineral deposit, which could be economically and legally extracted or produced at the time of the reserve determination.

“**Sampling**” means selecting a fractional, but representative, part of a mineral deposit for analysis.

“**Sediment**” means solid material settled from suspension in a liquid.

“**Shales**” means a fine-grained sedimentary rock consisting of compacted and hardened clay, silt, or mud that often forms in many distinct layers and splits easily into thin sheets or slabs.

“**Sphalerite**” means a very common mineral, zinc sulfide, usually containing some iron and a little cadmium, occurring in yellow, brown, or black crystals or cleavable masses with resinous luster and it is the principal ore of zinc.

“**Skarn**” means a coarse-grained metamorphic rock formed by the contact metamorphism of carbonate rock often containing garnet, pyroxene epidote and wollastonite.

“**Stratigraphy**” means the arrangement of rock strata, especially as to the geographic, chronologic order of sequence (age), classification, characteristics and formation.

“**Strike**” when used as a noun, means the direction, course or bearing of a vein or rock formation measured on a level surface and, when used as a verb, means to take such direction, course or bearing.

“**Stripping ratio**” means the ratio of waste to ore in an open pit mine.

“**Sulfide**” means a compound of sulfur and some other element.

“**Tailings**” means material rejected from a mill after most of the valuable minerals have been extracted.

“**Ton**” means a short ton (2,000 pounds).

“**Tonne**” means a metric ton that contains 2,204.6 pounds or 1,000 kilograms.

“**Vein**” means a fissure, fault or crack in a rock filled by minerals that have traveled upwards from some deep source.

**Item 3. Legal Proceedings**

None

**Item 4. Mine Safety Disclosures**

Not applicable

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(table of contents)**PART II****Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities**

Our common stock traded predominantly on the TSX under the symbol SLR prior to August 2, 2006 when Solitario received approval to list its common stock on NYSE MKT. Trading on NYSE MKT began on August 11, 2006, under the symbol XPL. Since 2008 trading volume on NYSE MKT has exceeded the trading volume on the TSX.

The following table sets forth the high and low sales prices on NYSE MKT for our common stock for the quarterly periods from January 1, 2013 to December 31, 2014.

Period	All prices are in USD\$			
	2014		2013	
	High	Low	High	Low
First quarter	\$1.65	\$0.85	\$1.77	\$1.46
Second quarter	1.51	0.97	1.60	0.88
Third quarter	1.56	1.20	1.05	0.80
Fourth quarter	1.24	0.88	0.99	0.78

The following table sets forth the high and low sales prices on the TSX for our common stock for the quarterly periods from January 1, 2013 to December 31, 2014.

Period	All prices are in CDN\$			
	2014		2013	
	High	Low	High	Low
First quarter	\$1.83	\$0.87	\$1.77	\$1.41
Second quarter	1.57	1.09	1.60	0.95
Third quarter	1.66	1.31	1.09	0.87
Fourth quarter	1.36	1.01	1.05	0.81

Shares authorized for issuance under equity compensation plans

On June 18, 2013, Solitario's shareholders approved the 2013 Solitario Exploration & Royalty Corp. Omnibus Stock and Incentive Plan (the "2013 Plan"). Under the terms of the 2013 Plan, the Board of Directors may grant awards of stock options, stock appreciation rights, restricted stock, and restricted stock units. A total of 1,750,000 shares of Solitario common stock are reserved for issuance for awards that may be made under the 2013 Plan. As of December 31, 2014, we have granted stock options for 120,000 shares that remain unexercised at \$1.14 per share and options for 1,280,000 shares that remain unexercised at \$0.94 per share.

On June 27, 2006, Solitario's shareholders approved the 2006 Stock Option Incentive Plan (the "2006 Plan"). A total of 2,800,000 shares of Company common stock are reserved for issuance for awards that may be made under the 2006 Plan. As of December 31, 2014, we have granted options for 160,000 shares that remain unexercised at Cdn\$1.49 per share, 1,990,000 shares that remain unexercised at Cdn\$1.60 per share and 198,000 shares that remain unexercised at Cdn\$2.40.

Equity Compensation Plan Information as of December 31, 2013:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	
		(2006 Plan -Cdn\$)	(2013 Plan – US\$)
	(a)	(b)	(c)
<b>2006 Plan</b>			
Equity compensation plans approved by security holders	2,348,000	\$1.66	133,150

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Equity compensation plans not approved by security holders	-	N/A	-
Subtotal 2006 Plan	<b>2,348,000</b>	<b>\$1.66</b>	<b>133,150</b>
<b>2013 Plan</b>			
Equity compensation plans approved by security holders	1,400,000	\$0.96	299,438
Equity compensation plans not approved by security holders	-	N/A	-
Subtotal 2013 Plan	<b>1,400,000</b>	<b>0.96</b>	<b>299,438</b>
Total all plans	<b>3,748,000</b>		<b>432,588</b>

Holders of our common stock

As of March 25, 2015, we have approximately 2,983 holders of our common stock.

Dividend Policy

We have not paid a dividend in our history and do not anticipate paying a dividend in the foreseeable future. Furthermore, restrictions under the Facility Agreement restrict our ability to make distributions until all amounts due under the Facility Agreement are satisfied.

**Item 6.  Selected Financial Data**

The following table summarizes the consolidated statements of operations and balance sheet data for our business since January 1, 2010. This data has been derived from the audited consolidated statements of operations for our business for each of the five years ended December 31, 2014 and the audited consolidated balance sheets of our business as of December 31, 2014, 2013, 2012, 2011 and 2010. You should read this information in conjunction with Item 7 – "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Solitario's historical consolidated financial statements and notes included in Item 8 – "Financial Statements and Supplementary Data." The information set forth below is not necessarily indicative of future results.

Balance sheet data:	As of December 31,				
(in thousands)	2014	2013	2012	2011	2010

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Total current assets	\$3,217	\$3,784	\$7,936	\$5,281	\$6,113
Total assets	\$19,040	\$19,500	\$23,483	\$22,054	\$29,608
Working capital (deficit) (1)	\$(1,987)	\$2,531	\$4,245	\$345	\$134
Long-term debt	\$—	\$3,144	\$2,437	\$2,075	\$2,604
Shareholders' equity	\$6,781	\$7,963	\$9,217	\$13,873	\$13,776

Statement of operations data:	Year ended December 31,				
(in thousands, except per share amounts)	2013	2013	2012	2011	2010
Property and joint venture revenue	\$200	\$300	\$300	\$242	\$200
Net loss attributable to Solitario shareholders	\$(1,833)	\$(2,052)	\$(3,297)	\$(3,377)	\$(4,066)

Per share information:

Basic and diluted

Net loss attributable to Solitario shareholders \$(0.05 ) \$(0.06 ) \$(0.10 ) \$(0.10 ) \$(0.14 )

(1) Working capital consists of current assets less current liabilities.

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**Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

The following discussion should be read in conjunction with the information contained in the consolidated financial statements and notes thereto included in Item 8 "Financial Statements and Supplementary Data." Our financial condition and results of operations are not necessarily indicative of what may be expected in future years.

**(a). Business Overview and Summary**

We are a development stage company (prior to February 22, 2012 we were an exploration stage company) with a focus on developing the Mt. Hamilton gold project, the acquisition of precious and base metal properties with exploration potential, and the development or purchase of royalty interests. We announced on February 22, 2012 the completion of a feasibility study on our Mt. Hamilton project (the "Feasibility Study"), prepared by SRK Consulting (US), Inc. of Lakewood, Colorado ("SRK"). As a result of the completion of the Feasibility Study, we have earned an 80% interest in the Mt. Hamilton project and may develop the Mt. Hamilton project, subject to a number of factors including obtaining necessary permits and availability of required development financing capital, none of which is currently in place. We also may explore other manners to monetize our interest in the Mt. Hamilton project, including divesting all or a portion of our interest in the project. The Mt. Hamilton project is discussed below under "Mt. Hamilton Joint Venture." In addition, we acquire and hold a portfolio of exploration properties for future sale, joint venture or to create a royalty prior to the establishment of proven and probable reserves. Although our exploration properties may be developed in the future by us or through a joint venture, and we may develop the Mt. Hamilton project, we have never developed a mineral property. We may also evaluate mineral properties to potentially buy a royalty.

Solitario was incorporated in the state of Colorado on November 15, 1984 as a wholly owned subsidiary of Crown Resources Corporation ("Crown"). We have been actively involved in this business since 1993. We recorded revenues from joint venture delay rental payments related to our Bongará project of \$200,000, each year, during 2014 and 2013 and we recorded \$100,000 of delay rental payments each year during 2013 related to our Mercurio project. During June 2012, we sold a royalty interest in our Mt. Hamilton project to Sandstorm Gold Ltd. ("Sandstorm") for \$10,000,000 of which \$6,000,000 was paid in June 2012 and \$4,000,000 was paid in January 2013. Previously, our last significant revenues were recorded in 2000 upon the sale of our Yanacocha property for \$6,000,000. We expect that future revenues from the sale of properties, if any, would also occur on an infrequent basis. At December 31, 2014, in addition to our Mt. Hamilton project, we had five exploration properties in Peru and Mexico, and one royalty property in each of Peru and Brazil. We are conducting limited exploration activities in those countries either on our own or through joint ventures operated by our partners.

In addition to our work at Mt. Hamilton, we have expertise in identifying mineral properties with promising mineral potential, acquiring these exploration mineral properties and exploring them to enable us to sell, joint venture or create a royalty on these properties prior to the establishment of proven and probable reserves. For these early-stage projects, one of our primary goals is to discover economic deposits on our mineral properties and advance these deposits, either on our own or through joint ventures, up to the development stage (development activities include, among other



things, the completion of a feasibility study for the identification of proven and probable reserves, as well as permitting and preparing a deposit for mining). At that point, or sometime prior to that point, we would attempt to either sell our exploration mineral properties, pursue their development either on our own or through a joint venture with a partner that has expertise in mining operations or create a royalty with a third party that continues to advance the property.

The accompanying financial statements have been prepared assuming we will continue as a going concern. As of December 31, 2014 we have a working capital deficit of \$1,987,000. As explained in more detail in Note 4, "Short-term Debt," in Item 8 "Financial Statements and Supplementary Data," we entered into a facility agreement (the "Facility Agreement") with RMB Australia Holdings Limited ("RMBAH") and RMB Resources, Inc., a Delaware corporation ("RMBR") whereby we may borrow up to \$5,000,000 from RMBAH (with any amounts outstanding collectively being the "RMB Loan"). The RMB Loan is due in August 2015. We currently do not have sufficient liquidity to repay the RMB Loan when due which raises significant doubt about our ability to continue as a going concern. Our management is currently in discussions to refinance the RMB Loan or to raise additional funds to from the sale of common shares, additional borrowing or the sale of assets to facilitate the repayment of the RMB Loan. There is no assurance that we will be able to raise sufficient funds to refinance the RMB Loan on acceptable terms. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty. Under the terms of the RMB Loan, we will be in default if it is unable to repay the RMB Loan when it is due in August 2015. Should we be in default, RMBAH has, among other rights, the right foreclose on its security interest in certain Company assets to satisfy its obligation

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In analyzing our activities, the most significant aspect relates to results of our exploration and potential development activities and those of our joint venture partners on a property-by-property basis. When our exploration or development activities, including drilling, sampling and geologic testing, indicate a project may not be economic or contain sufficient geologic or economic potential we may impair or completely write-off the property. Another significant factor in the success or failure of our activities is the price of commodities. For example, when the price of gold is down, the value of gold-bearing mineral properties decreases; however, when the price of gold is up it may become more difficult and expensive to locate and acquire new gold-bearing mineral properties with potential to have economic deposits. We anticipate the success of our development activities on our Mt. Hamilton property will become increasingly important in the future.

The potential sale, joint venture or development of our mineral properties will occur, if at all, on an infrequent basis. Accordingly, while we conduct development activities at the Mt. Hamilton project, we need to maintain and replenish our capital resources. We have met our need for capital in the past through (i) the sale of properties, which last occurred in 2000 with the sale of our Yanacocha property for \$6,000,000; (ii) joint venture payments, including delay rental payments discussed above; (iii) the Sandstorm royalty sale during 2012; (iv) the sale of our investment in Kinross common stock; (v) borrowing against the Facility Agreement; (vi) short-term margin borrowing secured by our investment in Kinross common stock; and (vii) issuance of common stock, including exercise of options. We have reduced our exposure to the costs of our exploration activities in the past through the use of joint ventures; however, we do not have any current plans to further joint venture Mt. Hamilton. In 2013, we significantly reduced our level of expenditures in our foreign exploration and administrative activities to just the care and maintenance of existing 100%-owned properties. Although we anticipate these practices will continue for the foreseeable future, we can provide no assurance that these sources of capital will be available in sufficient amounts to meet our needs, if at all.

**(b). Recent Developments**

*Updated Feasibility Study*

On February 22, 2012, we announced the completion of the Feasibility Study, and as a result we earned an 80% interest in MH-LLC pursuant to the MH Agreement, and became a development-stage company (but not a company in the “Development Stage”). On October 20, 2014, we announced the completion of the updated Mt. Hamilton feasibility study (the “Updated Feasibility Study”) and we reported the following mineral reserves at our Mt. Hamilton project:

**Mineral Reserve Statement, Mt. Hamilton Gold Project,**

**White Pine County, Nevada, SRK Consulting (U.S.), Inc.**

Reserve Category	Tons (000's)	Gold Grade oz/t	Silver Grade g/tonne	Contained Metal (1,000's of ounces)	
				Gold	Silver
Proven	1,240	0.029	1.01	0.198	6.80
Probable	21,260	0.024	0.82	0.198	6.80
Proven & Probable	<b>22,500</b>	<b>0.024</b>	<b>0.83</b>	<b>0.198</b>	<b>6.80</b>
				<b>545.4</b>	<b>4,459.6</b>

- 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;
- Gold recovery 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.

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*Investment in Kinross*

We have a significant investment in Kinross at December 31, 2014, which consists of 480,000 shares of Kinross common stock. During 2014 and 2013, we sold 120,000 and 70,000 shares, respectively, of Kinross common stock for proceeds of \$556,000 and \$358,000. As of March 25, 2015, we own 480,000 shares of Kinross common stock. Our investment in Kinross common stock represents a significant concentration of risk and any significant fluctuation in the market value of Kinross common shares could have a material impact on our liquidity and capital resources. As of March 25, 2015 we have sold two covered options covering 140,000 shares of Kinross stock whereby the holder could purchase 40,000 shares at \$3.50 per share through May 2015 and purchase 100,000 shares at \$4.00 per share through August 2015. The use of Kinross call options are discussed below under Note 8, "Derivative Instruments" in Item 8, "Financial Statements and Supplementary Data." We have classified our holdings of Kinross common stock as marketable equity shares available for sale and gains and losses on our holdings of Kinross common stock are recorded in other comprehensive income in the shareholders' equity section of our Consolidated Balance Sheet.

*Investment in Ely*

As of December 31, 2014 we own 15,732,274 shares of Ely common stock, representing approximately 19.5% of the outstanding shares of Ely. We have classified our holdings of Ely common stock as marketable equity shares available for sale and gains and losses on our holdings of Ely are recorded in other comprehensive income in the shareholders' equity section of our Consolidated Balance Sheet.

*Mineral property*

We began capitalizing our development costs incurred at our Mt. Hamilton project subsequent to the completion of the Feasibility Study. During 2014 and 2013, we capitalized \$2,582,000 and \$2,784,000, respectively, of mineral property to Mt. Hamilton, including \$1,699,000 and \$1,884,000, respectively, of development costs, \$250,000 and \$174,000, respectively, of payments on mineral properties and \$633,000 and \$726,000, respectively, of interest. In addition, during 2014 and 2013 we capitalized \$20,000 and \$11,000, respectively, of net bonding costs and \$300,000 and \$300,000, respectively, of advance royalty payments to an underlying leaseholder as other assets. See Note 2, "Mineral Properties," in Item 8, "Financial Statements and Supplementary Data" below for further discussion of the Mt. Hamilton project.

*Cancellation of options*

On January 28, 2014, holders of option awards from the 2006 Plan agreed to the cancellation of an aggregated of 1,797,000 options with an option price of Cdn\$2.40 with an expiration date of May 5, 2015 to allow us to have additional financial flexibility. No consideration was given or received by the holders of the options to cancel the awards.

#### *Private placement*

On February 28, 2014 we closed a private placement of 1,600,000 shares of Solitario common stock priced at \$1.05 per share for total proceeds of \$1,680,000 (the 2014 "Offering"). We retained a placement agent in connection with the portion of the Offering conducted in Canada and paid the placement agent a fee of \$50,000 for the sale effected to the single Canadian investor that participated in the 2014 Offering.

### **(c). Results of Operations**

#### Comparison of the year ended December 31, 2014 to the year ended December 31, 2013

We had a net loss of \$1,833,000 or \$0.05 per basic and diluted shares for the year ended December 31, 2014 compared to a net loss of \$2,052,000 or \$0.06 per basic and diluted share for the year ended December 31, 2013. As explained in more detail below, the primary reasons for the decrease in net loss during 2014 compared to the net loss during 2013 were (i) a decrease in other exploration expense to \$279,000 during 2014 compared to \$797,000 during 2013; (ii) a decrease in our non-stock option general and administrative expense to \$1,397,000 during 2014 compared to \$1,824,000 during 2013; (iii) an increase in the gain on sale of marketable equity securities to \$472,000 during 2014 compared to a gain on sale of marketable equity securities of \$142,000 during 2013; and (iv) a reduction in the net loss of our equity method investment to \$153,000 during 2014 compared to \$1,012,000 during 2013. Partially offsetting these decreases in net loss were (i) a reduction in our gain on derivative instruments to \$39,000 during 2014 compared to a gain on derivative instruments of \$90,000 during 2013; (ii) an increase in non-cash stock option compensation expense to \$779,000 during 2014 compared to \$420,000 during 2013; (iii) a decrease in the gain on warrant liability to \$85,000 during 2014 compared to a gain on warrant liability of \$998,000 during 2013; (iv) an increase in property abandonment and impairment to \$20,000 during 2014 compared to property abandonment and impairment of \$13,000 during 2013 and a reduction in our income tax benefit to nil in 2014 compared to an income tax benefit of \$176,000 during 2013. Each of these items is discussed in greater detail below.

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Our primary activities during 2014 and 2013 have been the (i) engineering and permitting activities to advance the Mt. Hamilton property toward future production, and to a lesser extent the monitoring of the exploration and development activities of our joint venture partners. During 2014 we continued our development efforts related to our Mt. Hamilton project capitalizing \$2,582,000 in mineral property costs including \$1,699,000 in direct development costs, property payments of \$250,000 and capitalization of interest costs of \$633,000. In addition we recorded an increase in other assets during 2013 of \$320,000 including bonding costs of \$20,000 and \$300,000 of advance royalty payment. During 2013 we capitalized \$2,784,000 of mineral property, including \$1,884,000 in direct development costs, \$174,000 of property payments and \$726,000 of capitalized interest. In addition during 2013 we capitalized \$11,000 of bonding costs and \$300,000 of advanced royalty payment to other assets. The expenditures were less during 2014 as we had completed the majority of the permitting work and were concentrating on engineering work related to the development of the Mt. Hamilton project as well as work on the Updated Feasibility Study, which required less direct expenditure than the work during 2013. In addition we had paid off our Augusta long term debt at the end of 2013, which reduced our interest costs during 2014. We decreased our exploration expenditures at our South American and Mexico properties to \$279,000 during 2014 compared to 797,000 during 2013 compared to as a result of a shift in our focus to the Mt. Hamilton project, and placing all of our non-joint ventured exploration activities on care and maintenance at the end of 2013. We did no drilling on any of our exploration projects in South America or Mexico during 2014 or 2013.

Our 2015 exploration and development expenditure budget is approximately \$846,000, which includes approximately \$732,000 for development costs related to Mt. Hamilton. In addition we anticipate we will spend approximately \$735,000 for claim payments, payments on leases to landowners and advance minimum royalty payments. The primary factor in the reduction in Mt. Hamilton exploration and development expenditures in 2015 compared to 2014 relates to the planned completion of our primary permitting activities during 2015, with reductions in engineering design work and project management pending obtaining all necessary permits and obtaining financing to begin construction of the project. The future construction of Mt. Hamilton will be dependent on a number of factors including receiving permits and obtaining financing for construction, none of which is currently in place. We cannot predict with certainty that we will be successful in achieving any of these goals. During 2015 we will continue our reduced early-stage planned exploration activities on our other properties and our reconnaissance exploration activities as we focus on the development of Mt. Hamilton. These exploration activities may also be modified, as necessary for changes, in joint venture funding, commodity prices and access to capital.

Exploration expense (in thousands) by property consisted of the following:

Property Name	2014	2013
Bongará	\$98	\$—
Pachuca	29	14
La Promesa	15	8
Canta Colorado	6	2
Cerro Azul	—	71
Norcan	—	5
Mercurio	—	4
Jaripo	—	1

Reconnaissance	131	692
Total exploration expense	\$279	\$797

On November 22, 2013 we entered into a letter agreement, (the “Letter Agreement”) between us, Ely Gold and Minerals, Inc. (“Ely”) and DHI Minerals (US) Ltd. (“DHI”). Under the Letter Agreement, Solitario subscribed for \$1,300,000 of shares of common stock of Ely at a price of Cdn\$0.10 and upon approval by Ely and other regulatory approvals we received 13,571,354 shares of Ely common stock. Ely used the\$1,300,000 from the subscription to pay Augusta Resource Corporation (“Augusta”) \$1,300,000 pursuant to the terms of an agreement between Ely and Augusta dated November 20, 2013. Ely’s receipt of the \$1,300,000 and payment of those funds to Augusta fully satisfied Solitario’s prior obligations to subscribe for an aggregate of US\$1,750,000 of shares of Ely common stock (US\$750,000 on or before May 1, 2014 and US\$1,000,000 on or before May 1, 2015) and paid off Solitario’s Augusta debt which was deemed fully paid upon receipt by Augusta of the \$1,300,000 from Ely. Solitario recorded a gain on early retirement of debt of \$313,000 during 2013 as a result of the payoff of the Augusta long-term debt. There were no similar items during 2014

We believe a discussion of our general and administrative costs should be viewed without the non-cash stock option compensation expense which is discussed below. Excluding these costs, general and administrative costs were \$1,397,000 during 2014 compared to \$1,824,000 during 2013. We incurred salary and benefits expense of \$734,000 during 2014 compared to \$880,000 during 2013, which decreased as a result of reduced salary costs with the reduction in certain administrative expenses related to the management of our reduced exploration activities. In addition, (i) legal and accounting costs were reduced to \$133,000 during 2014 compared to legal and accounting costs of \$285,000 as a result of less legal work

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performed in 2014 and as a result of the reversal of certain prior year accrued costs which were not incurred in our South American subsidiaries as a result of the reduced activities and elimination of Solitario employees; (ii) travel and investor relation costs were reduced to \$311,000 during 2014 compared to \$394,000 during 2013 as a result of ongoing cost reductions and reduced activities in travel and investor relations costs during 2014 and (iii) other costs related to office, insurance and miscellaneous costs were reduced to \$217,000 during 2014 compared to \$264,000 primarily due to lower insurance coverages related to cost reductions and reduced coverages. We anticipate general and administrative costs for 2015 will be lower than the costs incurred during 2014 as we expect less activity with regard to Mt. Hamilton and our South American operations and we have expect a reduction in salary costs during 2015. We have forecast 2015 general and administrative costs to be approximately \$1,403,000, excluding non-cash stock option compensation expense.

We account for our employee stock options under the provisions of ASC 718. Beginning in January 1, 2011, we recognize stock option compensation expense on the date of grant for 25% of the grant date fair value, and subsequently, based upon a straight line amortization of the grant date fair value of each of its outstanding options. During the year ended December 31, 2014 we recorded 779,000 of non-cash stock option expense for the amortization of grant date fair value with a credit to additional paid-in-capital compared to \$420,000 of non-cash stock option compensation expense during 2013. The primary reason for the increase in non-cash stock option compensation expense related to the grant of 1,990,000 options on August 15, 2014 and the related 25% expense of the grant date fair value of \$404,000 on that date. See Note 11, "Employee Stock Compensation Plans" to our consolidated financial statements in Item 8, "Financial Statements and Supplementary Data" for an analysis of the changes in the fair value of our outstanding stock options and the components that are used to determine the fair value.

During 2014 we recorded a gain on derivative instruments of \$39,000 compared to a gain of \$90,000 during 2013. The gains were related to the sale of Kinross calls during 2014 and 2013. We have sold covered calls on a limited portion of our Kinross common stock that we intend to sell within one year, to enhance our return on Kinross common stock in exchange for some potential upside in those covered Kinross shares. We do not anticipate selling a material number of covered Kinross call options during 2015. See Note 8, "Derivative Instruments" to our consolidated financial statements in Item 8, "Financial Statements and Supplementary Data" for an analysis of the changes in our derivative instruments, and the components that are used to determine the fair value of our derivative instruments.

We had \$41,000 of depreciation and amortization during 2014, of which we capitalized \$21,000 to mineral property in connection with the development of Mt. Hamilton compared to \$56,000 of depreciation and amortization during 2013, of which we capitalized \$30,000 to mineral property. The decrease is primarily as a result of certain equipment being fully amortized during 2014, which was partially offset by a small increase in furniture and fixtures at Mt. Hamilton. We amortize these assets over a three-year period. We anticipate our 2015 depreciation and amortization costs will be similar to our 2014 amount.

During 2014 we incurred \$633,000 of interest costs, including (i) \$217,000 paid in cash on the RMB Loan, (ii) \$4,000 paid on our UBS margin loans, (iii) \$195,000 for the amortization of our deferred offering costs on the RMB Loan and (iv) \$217,000 of interest costs associated with the amortization of the discount associated with the RMB warrants issued in connection with the RMB Loan. During 2013 we incurred \$726,000 of interest costs, including (i) \$165,000



paid in cash on the RMB Loan, (ii) \$22,000 paid on our UBS margin loans, (iii) \$195,000 for the amortization of our deferred offering costs on the RMB Loan and \$217,000 of interest costs associated with the amortization of the discount associated with the RMB warrants issued in connection with the RMB Loan and (iv) \$127,000 of interest costs during 2013 related to the accretion of interest on the Augusta debt prior to the payoff of the loan in November 2013. As discussed above, we capitalized all of our interest costs during 2014 and 2013 to mineral property associated with the development of the Mt. Hamilton project. See Note 2, "Mineral Properties" and Note 6 "Long-term Debt" to our consolidated financial statements in Item 8, "Financial Statements and Supplementary Data." Both the deferred offering costs and the warrant discount are being amortized to interest expense on a straight-line basis over the expected life of the RMB Loan.

We recorded interest and dividend income of \$1,000 during 2014 compared to \$57,000 during 2013. The reduction was related to the suspension of dividends on our Kinross stock during 2013. Interest income during 2014 and 2013 was not significant as our interest bearing accounts were kept to a minimum to reduce borrowing costs. We anticipate our cash interest cost will increase in 2014 as a result an increase in the outstanding balance on the RMB Loan anticipated during 2015 compared to 2014. However this will be mitigated by an anticipated reduction in the accretion of the interest costs associated with the deferred offering costs and the amortization of the warrant discount associated with the RMB Loan, which will end in August of 2015. However, we anticipate we may seek to refinance the RMB Loan during 2015, which would likely include additional offering costs, and require paying cash interest during the entire year of 2015, if we refinance the RMB Loan, for which we can provide no assurance. See "Liquidity and Capital Resources," below, for further discussion of the RMB Loan. See Note 5, "Short-term Debt" and Note 6, "Long-term Debt" to our consolidated financial statements in Item 8, "Financial Statements and Supplementary Data" for additional discussion of our interest expense related to our short and long-term debt.

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During 2014 we sold 120,000 shares of Kinross stock for proceeds of \$556,000 and recorded a gain on sale of Kinross of \$472,000 compared to During 2013 we sold 70,000 shares of Kinross stock for proceeds of \$358,000 and recorded a gain on sale of Kinross of \$308,000. In addition during 2013 we sold 6,303,563 shares of Ely for gross proceeds of \$481,000 and recorded a loss on sale of marketable equity securities of \$166,000. We anticipate we will continue to liquidate our holdings of Kinross stock to fund our exploration activities and our 2015 budget anticipates the sale of all 480,000 shares of Kinross stock for assumed proceeds of \$1,440,000 during 2015. Although we have not budgeted any sales of shares of Ely for 2015, we may also sell some shares of Ely to meet our cash and liquidity needs. See Liquidity and Capital Resources below. Any proceeds we may receive from sales of marketable equity securities are significantly dependent on the quoted market price of the securities sold on the date of sale and may be at prices significantly below our projected price.

During 2014 we recorded no income tax benefit or expense compared to 2013 when we recorded an income tax benefit of \$176,000. The change in our tax benefit during 2014 is primarily related to the reduction in the value of our holdings of marketable equity securities during 2013 and 2014 to the point that we no longer have a built-in-gain in our marketable equity securities for federal and state income tax purposes in excess of our net operating losses, and accordingly we are recording a valuation allowance for the tax losses we have incurred during 2014. Furthermore we have reduced our deferred income tax liability, previously related to the built-in-gains on our marketable equity securities and have recorded a valuation allowance for our deferred tax assets at December 31, 2014. See Note 7, "Income Taxes" to our consolidated financial statements in Item 8, "Financial Statements and Supplementary Data" for additional discussion of our income tax valuation allowance, deferred tax assets and our net operating losses for 2014 and 2013. We continue to provide a valuation allowance for our foreign net operating losses, which are primarily related to our exploration activities in Peru, Mexico and Brazil. We anticipate we will continue to provide a valuation allowance for these net operating losses until we are in a net tax liability position with regards to those countries where we operate or until it is more likely than not that we will be able to realize those net operating losses in the future.

We regularly perform evaluations of our mineral property assets to assess the recoverability of our investments in these assets. All long-lived assets are reviewed for impairment whenever events or circumstances change which indicate the carrying amount of an asset may not be recoverable utilizing guidelines based upon future net cash flows from the asset as well as our estimates of the geologic potential of early stage mineral property and its related value for future sale, joint venture or development by us or others. During 2014 we recorded \$20,000 of mineral property impairments related to our Pachuca property in Mexico compared to 2013 when we recorded \$13,000 of mineral property impairments related to our Cerro Azul and Atico properties in Peru and our Jaripo property in Mexico.

**(d). Liquidity and Capital Resources**

Short-term debt

*UBS secured line of credit margin loans*

At December 31, 2013 we have a balance of \$802,000 related to a short-term secured credit margin loan with UBS Bank, USA ("UBS Bank") secured by our holdings of Kinross common stock. During 2014 we borrowed an additional \$100,000 on the secured credit margin loan prior to paying off the entire balance of \$906,000, including \$4,000 of interest. We used the short-term credit margin loans as an alternative source of capital to selling our Kinross stock. We have no balance remaining on our short-term margin loan from UBS Bank at December 31, 2014 and have terminated our margin loan agreement with UBS. We do not anticipate we will borrow money using short-term margin loans in the near future. Solitario incurred interest costs related to the UBS credit line of \$4,000 and \$22,000, respectively, for the years ended December 31, 2014 and 2013

We anticipate the proceeds from the sale of Kinross common stock sold during 2014 will not exceed our anticipated United States tax deductible expenses, and accordingly, we do not anticipate having any currently payable United States income taxes for 2014. Our use of short-term borrowing is not considered critical to our liquidity, capital resources or credit risk strategies. We consider the use of short-term borrowing as a component of our overall strategy to potentially maximize our after-tax returns on the sale of our investment in Kinross stock.

(table of contents)*RMB Facility Agreement*

On August 10, 2012, we entered into a Facility Agreement with RMBAH and RMBR. Under the Facility Agreement, we were permitted to borrow up to \$5,000,000 from RMBAH at any time during the 24 month period commencing on August 21, 2012, the date of initial funding (the "Availability Period"). On August 11, 2014 we borrowed \$1,500,000 to bring our total borrowing under the RMB Loan to \$5,000,000. We may not borrow any further funds from the Facility Agreement. The RMB Loan is due in August 2015. We currently do not have sufficient liquidity to repay the RMB Loan when due as discussed above under "Business overview and summary." We recorded \$558,000 of deferred offering cost in 2012 upon entering into the Facility Agreement. The deferred offering costs are recorded in other assets and are being amortized on a straight-line basis to interest expense over 36 months, the term of the Facility Agreement. We have recorded deferred offering costs of \$126,000 and \$322,000, respectively as of December 31, 2014 and 2013 in other assets. We borrowed \$2,000,000 during 2013 and the outstanding principal balance of the RMB Loan was \$3,500,000 at December 31, 2013.

The RMB Loan matures on the earlier to occur of (i) 36 months from the date of initial funding or (ii) the date on which financing is made available to MH-LLC for purposes of placing the Mt. Hamilton project into commercial production. The RMB Loan amounts bear interest at the 90-day LIBOR rate plus 5%, payable in arrears on the last day of each quarterly interest period. All proceeds from the RMB Loan are deposited in a proceeds account (the "Proceeds Account") and are recorded as restricted cash until disbursed in accordance with the Facility Agreement. Pursuant to the Facility Agreement, funds may only be disbursed from the Proceeds Account for approved expenditures, including (i) exploration and development activities at the Mt. Hamilton project, ongoing earn-in payments at MH-LLC, general corporate purposes as set forth in a project and corporate budget approved by RMBAH and (iv) any other purpose approved by RMBAH. As of December 31, 2014 there was no cash balance in the Proceeds Account. The RMB Loan may be repaid at any time without penalty. Any amounts repaid may not be redrawn under the Facility Agreement. The RMB Loan is secured by a lien on our 80% interest in MH-LLC as well as a general security interest in our remaining assets.

*RMB Warrants*

Pursuant to the Facility Agreement, we issued 1,624,748 warrants to RMBAH (the "RMB Warrants") as partial consideration for financing services provided in connection with the Facility Agreement. Each RMB Warrant entitles the holder to purchase one share of Solitario common stock. The RMB Warrants expire 36 months from their date of issuance and have an exercise price of \$1.5387 per share, subject to customary anti-dilution adjustments. We recorded a discount to the RMB Loan for the fair value of the RMB Warrants of \$650,000 as of August 21, 2012, based upon a Black-Scholes model using a 36-month life, volatility of 62%, and a risk-free interest rate of 0.39%. We are amortizing this discount on a straight-line basis to interest expense over the three-year term of the RMB Loan and the remaining unamortized warrant discount was \$139,000 and \$356,000, respectively, as of December 31, 2014 and 2013.

The following table summarizes the RMB Loan:

	RMB	RMB	RMB
(in thousands)			

	Loan borrowing	Warrant discount	Short-term Debt(1)
Beginning balance January 1, 2013	\$ 1,500	\$ (573 )	927
Borrowing	2,000	—	2,000
Amortization of discount to interest cost	—	217	217
Ending balance December 31, 2013 (1)	\$ 3,500	\$ (356 )	\$ 3,144
Borrowing	1,500	—	1,500
Amortization of discount to interest cost	—	217	217
Ending balance December 31, 2014	\$ 5,000	\$ (139 )	\$ 4,861

(1) Prior to August 21, 2014, the RMB Loan was recorded as long-term debt.

The following table details the interest costs associated with the RMB Loan:

(in thousands)	Year ended	
	December 31,	
	2014	2013
Interest expense paid in cash	\$217	\$165
Amortization of the RMB Warrants discount	217	217
Amortization of RMB deferred offering costs	195	195
Total interest related to the RMB Loan	\$629	\$577

### Long-term debt

#### *Augusta long-term debt*

In connection with the formation of MH-LLC, the Mt. Hamilton properties contributed by DHI to MH-LLC were subject to a security interest granted to Augusta related to Ely's acquisition of the Mt. Hamilton properties. Pursuant to the MH Agreement, as part of our earn-in, we agreed to make private placement investments totaling \$2,500,000 in Ely common stock, all to provide Ely with the funds necessary for Ely to make the loan payments due to Augusta. The payments due to Augusta were non-interest bearing. Accordingly, upon formation and the contribution of the mineral properties by DHI to MH-LLC, MH-LLC recorded the fair value of the payments due to Augusta, discounted at 7.5%, which was our estimated cost of similar credit as of the formation of MH-LLC.

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On November 22, 2013, we entered into the second amendment to the MH-Agreement whereby we subscribed for 13,571,354 shares of Ely common stock for \$1,300,000 and, pursuant to the Letter Agreement Ely, used the funds to fully pay off the Augusta long-term debt. We recorded a gain on early retirement of debt of \$313,000 during 2013 as a result of the payoff of the Augusta long-term debt.

In April 2013, Ely exercised its right to reduce to \$500,000 Solitario's required subscription of \$750,000 for Ely common stock, funds from which Ely was required to pay the June 1, 2013 payment due to Augusta. Ely agreed to pay the remaining \$250,000 due to Augusta from its own funds, for a total payment of \$750,000 which was done in June 2013. As a result, we received 5,131,150 shares of Ely common stock and recorded the fair market value of the Ely stock received as marketable equity securities and an increase in additional paid-in-capital. Ely's payment of the \$250,000 portion of the Augusta debt was recorded as an increase in noncontrolling interest in the equity section of Solitario's balance sheet and is shown as a noncontrolling interest contribution, net as well as a repayment of long-term debt in the statement of cash flows.

During 2013 we recorded \$127,000 for accretion of interest related to the Augusta long-term debt and paid \$2,050,000, including the contribution of \$250,000 from noncontrolling interest, discussed above and \$750,000, respectively, in cash on the long-term note. All interest accreted on the Augusta long-term debt during 2013 was capitalized to mineral property. See Note 2, "Mineral Properties," to our consolidated financial statements in Item 8, "Financial Statements and Supplementary Data."

Joint venture and delay rental payments

In the past, we have financed our activities through the sale of our properties, joint venture arrangements, and the sale of our securities and from the sale of our marketable equity securities. We received joint venture payments of \$200,000, during both 2014 and 2013 related to delay rental payments on our Bongará project from Votorantim Metais Cajamarquilla, S.A., a wholly-owned subsidiary of Votorantim Metais (both companies referred to as "Votorantim"), our joint venture partner. In addition, we received a \$100,000 delay rental payment, on our Mercurio project in Brazil from Brazil Resources, Inc., our joint venture partner during 2013. Receipts from joint venture payments previously occurred on an infrequent basis. Per our agreements with both Votorantim on our Bongará project and Brazil Resources, Inc. on our Mercurio project, the joint venture partners may terminate the agreements at any time, and will not be required to make further delay rental payments if they terminate the agreements. Subsequent to December 31, 2014, Votorantim provided notice to us that it had made all required minimum expenditures at our Bongará project and per the joint venture agreement, is not required to make any further delay rental payments. Brazil Resources, Inc. will be required to make one additional joint venture payment of \$650,000 to us on our Mercurio project upon the grant of a mining concession over an existing exploration concession at Mercurio by the Brazilian National Department of Mineral Processing ("DNPM"). Brazilian Resources, Inc. has applied to the DNPM for this mining concession; however there is no assurance that the DNPM will grant the concession, nor can there be any assurance that Brazilian Resources, Inc. will not drop the exploration concession prior to the receipt of the mining concession, in which case no further payments will be required to be paid to us. We have not budgeted the receipt of any joint venture or delay rental payments for 2015 and expect that future revenues from joint venture payments and from the sale of properties, if any, would occur on an infrequent basis.

Sale of mineral property

During 2012, MH-LLC completed the sale of a 2.4% net smelter returns royalty (“NSR”) on the Mt. Hamilton project to Sandstorm for \$10,000,000. MH-LLC received an upfront payment of \$6,000,000 upon signing the agreement and received \$4,000,000 on January 15, 2013, which we recorded as a current asset as of December 31, 2012. See Note 2, “Mineral Properties,” to the consolidated financial statements in Item 8, “Financial Statements and Supplementary Data” for further discussion of the Sandstorm royalty sale. Previously a significant sale of mineral properties occurred in 2000 when we sold our interest in our Yanacocha property in Peru for \$6,000,000 in cash. Any sales of property, whether as a royalty, gold-stream or outright sale will also occur in the future, if at all, on an infrequent basis.

MH Agreement

During 2013, MH-LLC distributed \$250,000 to its members in proportion to their interests. We received \$200,000 from this distribution which was eliminated in consolidation. In addition, as part of the second amendment to the MH Agreement, Solitario and DHI agreed to modify our payment obligation of US\$250,000 and 50,000 shares of our common stock due to DHI on August 21, 2014 as previously contemplated under the terms of the MH Agreement to a payment of 327,000 shares of our common which was paid on December 20, 2013. Our last required cash and stock payment to DHI pursuant to the MH-Agreement, as amended, of US\$250,000 and 50,000 shares of our common stock was paid in February 2014. As of December 31, 2014 we have no remaining payments due to DHI under the terms of the MH Agreement, as amended.

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Investment in marketable equity securities

Our investments in marketable equity securities are based upon market quotes on the NYSE MKT and the Toronto Stock Exchange (“TSX”). At December 31, 2014, we have classified \$2,308,000 of our marketable equity securities as a short-term asset. Changes in the fair value of marketable equity securities are recorded as gains and losses in other comprehensive income in shareholders’ equity. During the year ended December 31, 2014, we recorded a loss in other comprehensive income on marketable equity securities of \$1,580,000, and recorded a valuation allowance equal to the related deferred tax expense. See Note 7, “Income Taxes” to the consolidated financial statements in Item 8, “Financial Statements and Supplementary Data” for further discussion of the income taxes related to other comprehensive income.

*Kinross common stock*

Our marketable equity securities are classified as available-for-sale and are carried at fair value, which is based upon market quotes of the underlying securities. At December 31, 2014 and 2013, we owned 480,000 and 600,000 shares of Kinross common stock, respectively. The Kinross shares are recorded at their fair market value at December 31, 2013 and 2012 of \$1,354,000 and 2,628,000, respectively.

During 2014 we sold 120,000 shares of Kinross common stock for proceeds of \$556,000 and recorded a gain on sale of Kinross of \$472,000 in the consolidated statement of operations. During 2013 we sold 70,000 shares of Kinross common stock for proceeds of \$358,000 and recorded a gain on sale of those shares of \$308,000 in the consolidated statement of operations. The gain on sale was transferred; less related deferred tax expense, from previously unrealized gain on marketable equity securities in other comprehensive income. Any change in the market value of the shares of Kinross common stock could have a material impact on our liquidity and capital resources. The price of shares of Kinross common stock varied from a high of \$5.37 per share to a low of \$2.00 per share during the year ended December 31, 2014.

*Ely common stock*

During 2013 we sold 6,303,563 shares of Ely for gross proceeds of \$481,000 and recorded a loss on sale of marketable equity securities of \$166,000 in the consolidated statement of operations. The loss on sale was transferred; less related deferred tax expense, from previously unrealized gain on marketable equity securities in other comprehensive income. As part of the Letter Agreement, discussed above, we received 13,571,354 shares of Ely common stock. As of December 31, 2014 we own 15,732,274 shares of Ely common stock, representing approximately 19.5% of the outstanding shares of Ely that are recorded at their fair market value of \$946,000 at December 31, 2014. We have classified our holdings of Ely common stock as marketable equity shares available for sale and gains and losses on our holdings of Ely are recorded in other comprehensive income in the shareholders’ equity section of our consolidated balance sheet.



*Other common stock*

We also own 430,000 shares of TNR Gold Corp. that are recorded at their fair market value of \$4,000 at December 31, 2014 and 250,000 shares of International Lithium Corporation that are recorded at their fair market of \$4,000 at December 31, 2014.

Working capital

We had negative working capital of \$1,987,000 at December 31, 2014 compared to \$2,531,000 at December 31, 2013. Our negative working capital is primarily related to the our obligation to repay the RMB Loan of \$5,000,000 on August 21, 2014, which is in excess of our remaining working capital which primarily consists of our cash and equivalents and our investment in 480,000 shares of Kinross common stock of \$1,354,000, our investment in 15,732,274 shares of Ely common stock all of which are available for sale in the next year as needed for working capital, less our accounts payable of \$342,000. We currently do not have sufficient liquidity to repay the RMB loan when due. Our management is currently in discussions to refinance the RMB Loan or to raise additional funds to from the sale of common shares, additional borrowing or the sale of assets to facilitate the payment of the RMB loan. There is no assurance that we will be able to refinance the RMB Loan or raise sufficient funds on acceptable terms. If we are not able to raise sufficient funds or refinance the RMB Loan, RMBAH has the right to foreclose on the RMB Loan and liquidate our assets to satisfy the balance due on the RMB Loan.

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Cash and cash equivalents were \$869,000 as of December 31, 2014 compared to \$2,092,000 as of December 31, 2013. As of December 31, 2014, our cash balances along with our investment in marketable equity securities are not adequate to fund our expected expenditures over the next year, including our planned 2014 development and payment obligations related to MH-LLC and the Mt. Hamilton project. See Note 1, "Basis of Presentation" to the consolidated financial statements in Item 8, "Financial Statements and Supplementary Data" for further discussion of our plan to meet our obligations during the coming year.

The nature of the mining exploration business requires significant sources of capital to fund exploration, development and operation of mining projects. We will need additional resources to fund our long-term payment obligations associated with MH-LLC, develop the Mt. Hamilton project on our own and explore any mineral deposits we have. We anticipate that we would finance these activities through the use of joint venture arrangements, the issuance of debt or equity, the sale of interests in our properties or the sale of our shares of Kinross common stock. There can be no assurance that a combination of such sources of funds will be available in the quantity or on terms acceptable to us, if at all.

Sale of our common stock

On February 28, 2014, we sold 1,600,000 shares of our common stock in a private placement at a price of \$1.05 per share for total proceeds of \$1,680,000 (the "2014 Offering"). We paid a finder's fee of \$50,000 in connection with the 2014 Offering. The 2014 Offering was unanimously approved by our Board of Directors.

On July 26, 2013, we sold 2,451,892 shares of our common stock in a private placement at a price of \$0.84 per share for total proceeds of \$2,060,000 (the "Offering"). The Offering was unanimously approved by our Board of Directors and, as part of the Offering insiders subscribed for and acquired 606,665 shares (the "Insider Shares") for a total purchase of \$510,000. The offer and sale of the Insider Shares was unanimously approved by the Audit Committee of the Board of Directors. All shares in the Offering were offered and sold on the same terms and conditions.

Any future sale of our common stock, if any, would be dependent on a number of factors including the market price of our stock, the availability of investors, our ability to meet necessary regulatory requirements, including possible registration of the shares to be sold with the United States Securities and Exchange Commission among other things, and there can be no assurance that any of the necessary requirements will be in place.

Stock-based compensation plans

*2013 Plan*

During the year ended December 31, 2014 we issued restricted stock units (RSU's) from the 2014 Plan for a total of 50,562 shares that vested upon grant and were issued as shares to two employees as part of their severance pay upon the employees' termination from Solitario. We recorded a credit to additional paid-in-capital of \$45,000 on the date of issuance of the shares from the 2013 Plan. During the year ended December 31, 2013 we granted options for 120,000 shares at an exercise price of \$1.14 and options for 1,280,000 shares at an exercise price of \$0.94 per share. The options vest 25% on date of grant and 25% on the next three anniversary dates. There were no options exercised from the 2013 Plan during 2014 or 2013.

#### *2006 Plan*

On January 28, 2014, holders of option awards from the 2006 Plan agreed to the cancellation of an aggregate of 1,797,000 options having an option price of Cdn\$2.40 and an expiration date of May 5, 2015 to allow Solitario to have additional financial flexibility. No consideration was given or received by the holders of the options to cancel the awards. On August 15, 2014 we granted options for 1,990,000 shares exercisable at Cdn\$1.60 per share, with a five-year life that vest 25% on date of grant and 25% on the next three anniversary dates. The options had a grant-date fair value of \$1,618,000, based upon a Black-Scholes model using an expected volatility of 66% and a risk free interest rate of 1.6%. There were no options exercised from the 2006 Plan during 2014. During the year ended December 31, 2013, options for 117,500 shares were exercised from the 2006 Plan for cash proceeds of \$184,000. During 2013 there were no shares exercised or granted from the 2006 Plan.

We do not expect any of our vested options from the either the 2006 Plan or the 2013 Plan will be exercised during 2015. See Note 11, "Employee Stock Compensation Plans" to the consolidated financial statements contained in Item 8, "Financial Statements and Supplementary Data" for a summary of the activity for stock options outstanding under the 2006 Plan and the 2013 Plan as of December 31, 2014.

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Off-balance sheet arrangements

As of December 31, 2014 and 2013, we have no off-balance sheet arrangements.

(e). Cash Flows

Net cash used in operations during the year ended December 31, 2014 decreased to \$1,610,000 compared to \$2,237,000 for 2013 primarily as a result of (i) a decrease in exploration expenses to \$279,000 in 2014 compared to \$797,000 in 2013 as a result of the reduced activity South America and Mexico during 2014 compared to 2013 and (ii) a decrease in non-stock option general and administrative costs to \$1,398,000 during 2014 compared to \$1,824,000 during 2013, both of which are discussed in more detail above in “Results of Operations.”

Net cash (used in) provided from investing activities decreased to a use of \$(1,691,000) during 2014 from net cash provided of \$2,517,000 during 2013 primarily related to (i) no proceeds from the Sandstorm sale during 2014 compared to \$4,000,000 in proceeds during 2013, discussed above, and (ii) a reduction in proceeds from the sale of marketable equity securities to \$556,000 during 2014 compared to \$839,000 during 2013, also discussed above. This decrease was partially offset by (i) a decrease in the capitalization of expenditures for additions to mineral properties, primarily at Mt. Hamilton, as discussed above, to \$1,960,000 during 2014 compared to \$2,173,000 during 2013.

Net cash provided from financing activities increased to \$2,078,000 provided during 2014 compared to \$1,196,000 during 2013. The primary reasons for the increase in cash provided from financing activities in 2014 was related to (i) net borrowing on long-term debt of \$1,500,000 from the RMB Loan during 2014 compared to net repayments of long-term debt of \$50,000 during 2013, which encompassed the borrowing of \$2,000,000 on the RMB Loan and the repayment of the Augusta long-term debt of \$2,050,000. These increases in cash provided from financing activities during 2014 compared to 2013 was partially offset by an increase in the net payments of short-term debt of \$802,000 during 2014 compared to net repayments of \$698,000 during 2013; (ii) a reduction in cash received from the issuance of common stock to \$1,630,000 during 2014 compared to \$2,060,000 during 2013; and (iii) cash received from the exercise of options of \$184,000 during 2013 with no similar item during 2014.

**(f). Development Activities, Exploration Activities, Environmental Compliance and Contractual Obligations**

Development Activities

With the completion of the Feasibility Study on February 22, 2012, we entered the development stage of the Mt. Hamilton project. The development of the Mt. Hamilton project, if it occurs, will entail a significant initial capital investment, which is estimated in the Updated Feasibility Study to be approximately \$91.7 million. We currently do not have the funds for the estimated \$91.79 million initial capital investment to develop the Mt. Hamilton project and there can be no assurance that the funds to complete the development of Mt. Hamilton will not be higher than is estimated in the Updated Feasibility Study. As a result, the funding for the full development will require significant additional capital which we anticipate may, in part, come from the joint venture of the project, as well as liquidation of our investment in Kinross, additional potential issuance of our common stock, equipment leasing, or debt and commodity stream financing, none of which is currently in place. We cannot provide any assurance that such capital will be available in sufficient amounts, if at all. If we develop the Mt. Hamilton deposit, we will be responsible for reclamation at the completion of mining. In addition we are required to make certain annual claim payments on our mineral property at Mt. Hamilton and make payments to certain other underlying leaseholders at Mt. Hamilton to maintain our ownership of MH-LLC and the Mt. Hamilton project. Our 2015 Mt. Hamilton mineral property payments, which include a \$300,000 prepaid royalty payment, are estimated to be approximately \$735,000. These obligations are detailed below under "Contractual Obligations." If we fail to make any of these payments we may lose some or all of our interest in MH-LLC and/or the Mt. Hamilton project.

### Exploration Activities

A historically significant part of our business involves the review of potential property acquisitions and continuing review and analysis of properties in which we have an interest, to determine the exploration and development potential of the properties. In analyzing expected levels of expenditures for work commitments and property payments, our obligations to make such payments fluctuate greatly depending on whether, among other things, we make a decision to sell a property interest, convey a property interest to a joint venture, or allow our interest in a property to lapse by not making the work commitment or payment required. In acquiring many of our interests in mining claims and leases, we have entered into agreements, which generally may be canceled at our option. We are often required to make minimum rental and option payments in order to maintain our interest in certain claims and leases. Our net 2014 mineral and surface property rental and

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option payments included in exploration expense, were \$2