

SOLITARIO EXPLORATION & ROYALTY CORP.  
Form 10-K  
March 03, 2016  
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, 2015

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
<b>Common Stock, \$0.01 par value</b>	<b>NYSE MKT</b>

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]

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, 2015 as reported on NYSE MKT, was approximately \$22,857,000.

There were 39,044,994 shares of common stock, \$0.01 par value, outstanding on March 3, 2016.

## **DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the definitive Proxy Statement for the Registrant's Annual Meeting of Shareholders, which is expected to be filed by April 29, 2016, have been incorporated by reference into Part III of this Annual Report on Form 10-K

**TABLE OF CONTENTS**

	Page
<b>PART I</b>	
Item 1 Business	3
Item 1A Risk Factors	6
Item 1B Unresolved Staff Comments	11
Item 2 Properties	11
Item 3 Legal Proceedings	17
Item 4 Mine Safety Disclosures	17
<b>PART II</b>	
Item 5 Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	18
Item 6 Selected Financial Data	20
Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations	21
Item 7A Quantitative and Qualitative Disclosures about Market Risk	29
Item 8 Financial Statements and Supplementary Data	30
Item 9 Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	51
Item 9A Controls and Procedures	51
Item 9B Other Information	51
<b>PART III</b>	
Item 10 Directors, Executive Officers and Corporate Governance	52
Item 11 Executive Compensation	52
Item 12 Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	52
Item 13 Certain Relationships and Related Transactions, and Director Independence	52
Item 14 Principal Accounting Fees and Services	52
<b>PART IV</b>	
Item 15 Exhibits, Financial Statement Schedules	53
<b>SIGNATURES</b>	<b>54</b>

## **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 an exploration stage company with a focus on the acquisition of precious and base metal properties with exploration potential, and the 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.

#### **Sale of Mt. Hamilton LLC**

On August 25, 2015, we, along with DHI Minerals (US) Ltd. ("DHI"), sold our combined interests in the Mt. Hamilton gold project to Waterton Nevada Splitter, LLC, ("Waterton") for total cash proceeds of US\$30 million (the "Transaction") pursuant to a definitive agreement entered into on June 10, 2015 (the "Agreement"). We sold our 80% interest in Mt. Hamilton LLC ("MH-LLC"), a limited liability company which holds 100% of the Mt. Hamilton project assets, and DHI sold its 20% interest in MH-LLC. DHI is a wholly-owned subsidiary of Ely Gold and Minerals, Inc. ("Ely"). We received gross cash proceeds of US\$24 million and Ely received gross cash proceeds of US\$6 million. Our costs and fees related to the Transaction, including broker fees and professional service fees, were \$439,000. The Transaction was structured as the sale of DHI's and our combined membership interests in MH-LLC. Completion of the Transaction was subject to the satisfaction of various conditions precedent, including the approval of the holders of a majority of Solitario's outstanding shares of common stock, which was received at Solitario's annual shareholder meeting on August 14, 2015. We recorded a gain on sale related to the Transaction of \$12,309,000. The assets and liabilities sold and the gain on the Transaction are detailed under Recent Developments in Note 1, "Business and Summary of Significant Accounting Policies" to the Consolidated Financial statements in Part II, Item 8, "Financial Statements and Supplementary Data."

### Repayment of the RMB Loan

Concurrent with the closing of the Transaction, we paid \$5,000,000 plus \$7,000 of interest and fees to fully repay the funds we had borrowed (the “RMB Loan”) pursuant to a facility agreement (the “Facility Agreement”) with RMB Australia Holdings Limited (“RMBAH”) and RMB Resources, Inc. (“RMBR”). On August 5, 2015, we entered into an agreement with RMBAH to extend the maturity date of the RMB Loan from August 21, 2015 to September 30, 2015 (the “RMB Loan Extension”). In consideration for entering into the RMB Loan Extension, we paid RMBAH an extension fee of \$50,000 and agreed to extend the terms of warrants to acquire 1,624,748 shares of Solitario common stock (the “RMB Warrants”) from August 21, 2015 to August 21, 2016. The RMB Warrants were originally issued in August 2012 to RMBAH as partial consideration for financing services provided in connection with the Facility Agreement.

We have been actively involved in mineral exploration and related activities since 1993. Previous to the Transaction, our last significant proceeds from the sale of a mineral property were recorded in 2000 upon the sale of our Yanacocha property for \$6,000,000. During 2014 we recorded revenues from joint venture delay rental payments of \$200,000 related to our Bongará project in Peru. Future proceeds from the sale of properties, if any, will also occur on an infrequent basis. At December 31, 2015, we had four mineral exploration properties in Peru and Mexico, our Yanacocha royalty property in Peru and a retained royalty on the Pedra Branca project in Brazil. We are conducting limited property evaluation activities in those countries either on our own using contract geologists, or through joint ventures operated by our partners.

### Table of Contents 3

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, 2015 is as follows: All of the subsidiaries are 100%-owned, with the exception of Bongará project in Peru, with Solitario retaining a 39% interest and Minera Chambara, which is 85%-owned. Both of these projects are joint ventured to Compania Minera Milpo S.A.A. ("Milpo"). Milpo 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. During the year ended December 31, 2015 we dissolved our previously owned subsidiary, Altoro Gold Corp., which had held interest in exploration properties in Brazil that had been abandoned in prior years.

#### Solitario Exploration & Royalty Corp. [Colorado]

- Minera Chambara, S.A. [Peru] (85%)
- Minera Solitario Peru, S.A. [Peru]
- Minera Bongará, S.A. [Peru] (39%)
- Minera Soloco, S.A. [Peru]
- Minera Solitario Mexico, S.A. [Mexico]

#### General

Prior to the Transaction, a significant part of our focus was on the permitting and development of the Mt. Hamilton project. Currently our primary goal is to acquire and/or 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 sell our 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. In addition to focusing on our current assets and properties, we expect to focus on the potential acquisition of new precious and base metal properties and assets with exploration potential and the development or purchase of royalty interests.

Prior to the completion of the Transaction we had significantly reduced our exploration activities in Peru, Mexico and Brazil. We no longer have any active properties in Brazil and we have no full-time employees in any of those countries. Our current and near-term future exploration activities in Peru and Mexico consist of care and maintenance of our existing exploration projects through the use of contract geologists, and oversight of our joint ventures in Peru and Mexico that are managed by our partners.

In analyzing our activities, a significant aspect relates to 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 down, the value of any of our gold-bearing mineral exploration properties decreases; however, it may also become easier and less expensive to locate and acquire new gold-bearing mineral exploration properties with potential to have economic deposits.

The sale, joint venture or development, either on our own or through a joint venture of our mineral properties has, and is expected to occur on an infrequent basis. Accordingly, while we conduct exploration activities on our projects, we need to maintain and replenish our capital resources. We have met our need for capital in the past through (i) proceeds of the Transaction; (ii) sale of our shares of Kinross common stock; (iii) borrowing in the form of short-term margin debt secured by our investment in Kinross; (iv) borrowing under the Facility Agreement (v) joint venture delay rental payments, including payments on our Bongará project; (vi) a royalty sale to Sandstorm, Ltd for \$10,000,000 in 2012; and (vii) issuance of common stock, including cash received upon the exercise of options. In the past, 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 one segment, mineral exploration. We currently conduct limited exploration activities in Peru and Mexico. See Note 11 “Segment Reporting” in Part II, Item 8, “Financial Statements and Supplementary Data” of this Form 10-K. As of March 3, 2016, we had five full-time employees, located in the United States and no full-time employees outside of

the United States. We utilize contract managers, geologists and laborers to execute our Latin American project work and acquisition evaluations.

Table of Contents 4

A large number of companies are engaged in the acquisition, 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 and advisors, 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 programs.

### 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 attempt to conduct our exploration 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 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 2015, we had no material environmental incidents or non-compliance with any applicable environmental regulations.

### Mineral Properties - General

We have been involved in the exploration for minerals in the United States and 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 Brazil since 2000. During 2004 we began a reconnaissance exploration program in Mexico and

acquired mineral interests there in 2005. During 2013 we significantly reduced our exploration activities in Peru and Mexico, and in 2015 we terminated all of our activities in 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 in Peru and Mexico through the use of contract geologists and oversight of our joint ventures that are managed by our partners.

#### Financial Information about Geographic Areas

Included in the consolidated balance sheets at December 31, 2015 and 2014 are total assets of \$86,000 and \$70,000, respectively, related to Solitario's foreign operations located in Peru and Mexico.

#### 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.solitarioxr.com](http://www.solitarioxr.com) as soon as practicable, after filing with the United States Securities and Exchange Commission.

[Table of Contents](#) 5

## **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.

***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 had 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.

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 either on our own or 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.

***A significant portion of our liquid assets consist of U.S. Treasuries and bank certificates of deposit. The failure of the financial institutions that issued or hold these financial instruments could have a material adverse impact on the market price of our common stock and our liquidity and capital resources.***

At December 31, 2015, \$17,359,000 of our cash was held in a Key Bank, NA money market account which is in excess of the Federal Deposit Insurance Corporation (“FDIC”) insured limit of \$250,000. As of March 3, 2016, we have invested approximately \$7,510,000 in separate, FDIC insured certificates of deposit with the maximum individual bank exposure of \$250,000, reducing this exposure. However, as of March 3, 2016 we have invested \$8,502,000 in United States Treasury securities, with maturities of between 60 days and 18 months with the remaining balance of our cash held in money market accounts both of which are held in a brokerage account at Charles Schwab, and none of which are covered by FDIC insurance. The failure of either Charles Schwab or the financial institutions holding these funds and assets could have a material impact on the market price of our common stock and our liquidity and capital resources.

***We have no reported mineral reserves and none of our current projects are likely to be monetized in the near future and any projects we may acquire could be likely to offer the opportunity for near term revenues or sale proceeds, 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 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 any near-term sale or joint venture of our mineral properties and we would not be able to realize any proceeds and or profit from our interests in such mineral properties, which could materially adversely affect our financial position or results of operations.

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

Table of Contents 6

An investment in our common stock involves a high degree of risk. The liquidity of our shares, or the 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 TSX during 2015 was approximately 51,000 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 the price of gold or other commodity prices, negative news on our projects, negative investment sentiment for mining and commodity equities and general economic trends.

***Our mineral exploration 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 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.

***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 22 years of operations. 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 three years in our history; during 2015, as a result of the Transaction, 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 former Yanacocha property. We cannot predict when, if ever, we will be profitable again or able to begin generating consistent revenues or cash flows from our operations or assets. If we do not operate profitably or identify and execute on outside sources of funding, we may be unable to fund our current or contemplated exploration activities, acquire new assets, or otherwise further our business plan.

***Our operations outside of the United States of America may be adversely affected by factors outside of 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 and Mexico. 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 are subject to the laws of Peru 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 community opposition to our activities, 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.

[Table of Contents](#) 7

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 would likely 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 the sale of interests in mineral properties, including the Transaction in 2015, the utilization of joint venture arrangements with third parties (generally providing that the third party will 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 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 may need to raise additional cash, or enter into joint venture arrangements, in order to fund the exploration activities required to determine whether mineral deposits on our projects are commercially viable. 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 may 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.

***A large number of companies are engaged in the exploration and development or sale 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 this sector of 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 or sale 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 companies in the mineral properties sector 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.

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

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.

Table of Contents 8

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. 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 expenditures 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 activities in Peru and Mexico 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 commodity prices 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.

***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.***

Table of Contents 9

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 with Solitario and in 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 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.

***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 opportunities 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.***

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.

Table of Contents 10

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**

#### **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., our subsidiary 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 Metais Cajamarquilla, S.A., a wholly-owned subsidiary of Votorantim Metais (both companies referred to as "Votorantim") on Solitario's 100%-owned Bongará zinc project (the "Bongará Letter Agreement"). On March 24, 2007, Solitario signed the Framework Agreement with Votorantim for the Exploration and Potential Development of Mining Properties, (the "Framework Agreement") pursuant to, and replacing, the Bongará Letter Agreement. 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 39% of the shares in Minera Bongará S.A.

During 2015 Votorantim 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 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 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 with 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 2016, payments of approximately \$140,000 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.

Table of Contents 11

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, was previously inaccessible by road, the work to date having been done by either foot or helicopter access. Milpo has now completed 38 kilometers of access road. 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 by limiting access for four to five months of the year. 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 Bongará 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, and 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.

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 worked continuously on the project until it transferred its interest to its 51%-held affiliate, Milpo, in 2015. All work performed by us, Cominco, Votorantim or Milpo 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, Votorantim or Milpo.

## 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 11 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.

Table of Contents 12

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 up to hundreds of meters along strike.

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

<b>Breakout Zone Name</b>	<b>Drill Hole Number</b>	<b>Intercepts (meters)</b>	<b>Zinc %</b>	<b>Lead %</b>	<b>Zinc+Lead %</b>
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	<b>15.5</b>
North Zone	V-21	92.0	5.5	1.7	<b>7.2</b>
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	<b>23.84</b>

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 14 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.

#### 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 and engaged SRK Consulting (USA) Inc. (a large independent international mining engineering firm) to review Milpo'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.

Table of Contents 13

## 9. Prefeasibility 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.

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 continue several prefeasibility-level studies in 2016.

## 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 2016 is expected to focus on additional road building activities to establish access to surface drilling platforms to conduct future drilling activities. Additional prefeasibility-level studies are also planned by Milpo.

## **Chambara Zinc Property (Peru)**

In April 2008, we signed the Minera Chambara shareholders' agreement with Votorantim for the exploration of a large area of interest in northern Peru measuring approximately 200 by 85 kilometers. In 2015 Milpo became the project manager, and funds and conducts all exploration on the project. Votorantim originally 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 56 concessions totaling 47,000 hectares of valid concessions. As of December 31, 2015, Minera Chambara's only assets are the properties and Minera Chambara has no debt. Milpo 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 Milpo 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. Milpo is studying the past data pertaining to the Chambara project and is evaluating the land holdings in preparation for claims payments in mid-2016. Further reductions in the Chambara land position may occur during 2016 as a result of these studies.

The only field work conducted in 2015 and planned for 2016 is social work in preparation for any future exploration programs. In June 2016 payments of approximately \$264,000 to the Peruvian government will be due by Milpo in order to maintain the mineral rights if no further reductions in the claims package are made. Milpo is responsible for making these payments.

### **Newmont Alliance and the La Promesa Project (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 made an equity investment in Solitario a portion of which Solitario spent on exploration on Strategic Alliance areas covered by the Alliance Agreement. Under the terms of the Alliance

Agreement, we granted Newmont a 2% NSR on properties included in the Strategic Alliance areas including the La Promesa project. If we meet certain minimum exploration expenditures on the project, Newmont will have the right to joint venture it and earn up to a 75% interest by taking the project through feasibility and financing Solitario's retained 25% interest into production.

Table of Contents 14

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 2016 will be approximately \$8,000. In February 2012 Newmont waived its exclusive right to joint venture La Promesa and allowed us to potentially joint venture the project with another company. During 2016 we intend 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:

<b>Chip</b>	<b>Channel #</b>	<b>True Width</b>	<b>Silver gpt</b>	<b>% Zinc</b>	<b>% Lead</b>	<b>Indium gpt</b>
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 Peru"), whereby we sold our Yanacocha Property to Newmont Peru 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 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 silver and copper prices, 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.

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

During 2015 we converted our operating interest in the Pedra Branca project to a 1% NSR interest. The Pedra Branca platinum-palladium (“PGM”) project consisted of 57 exploration concessions totaling approximately 70,000 hectares in Ceará State, Brazil. The property is now owned by Garrison Capital Partners Limited, a Dubai, UAE company, which controls all activities related to the Pedra Branca 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.

Table of Contents 15

In 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. (“Cuicuilco”). 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 NSR which may be purchased for \$20,000,000.

### **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 2016.

#### **Discontinued Projects**

During 2015 we did not have any mineral property impairments. During 2015 we terminated our operating interest in the Pedra Branca project, retaining a 1% royalty interest. We had no remaining investment in the Pedra Branca project at the time of the termination of our operating interest. In addition, we transferred our royalty interest in the Mercurio gold property in Brazil during 2015 to a private Brazilian party in return for the elimination of potential administrative and regulatory costs associated with our exit from Brazil. We had no remaining investment in Mercurio when we dropped the project. During 2014 we dropped our holdings at our Pachuca property in Mexico and recorded a mineral property write-down of \$20,000.

### **GLOSSARY OF MINING TERMS**

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

“**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.

**“gpt”** means grams per tonne.

**“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.

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

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

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

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

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

Table of Contents 16

“**Ounce**” means a troy ounce.

“**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.

“**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.

“**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.

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

“**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

Table of Contents 17

**PART II**

**Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities**

Our common stock trades on the NYSE MKT under the symbol XPL and on the TSX under the symbol SLR. Since 2008 trading volume of our stock on NYSE MKT has exceeded the trading volume of our stock on the TSX by a substantial margin.

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, 2014 to December 31, 2015:

Period	All prices are in US\$			
	2015		2014	
	High	Low	High	Low
First quarter	\$0.95	\$0.74	\$1.65	\$0.85
Second quarter	0.83	0.52	1.51	0.97
Third quarter	0.65	0.45	1.56	1.20
Fourth quarter	0.58	0.44	1.24	0.88

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, 2014 to December 31, 2015:

Period	All prices are in CDN\$			
	2015		2014	
	High	Low	High	Low
First quarter	\$1.18	\$0.92	\$1.83	\$0.87
Second quarter	0.96	0.70	1.57	1.09
Third quarter	0.80	0.57	1.66	1.31
Fourth quarter	0.74	0.57	1.36	1.01

**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 common stock were initially reserved for issuance under the 2013 Plan. As of December 31, 2015, a total of 1,699,438

shares of Solitario common stock are reserved and available for issuance of future awards under the 2013 Plan. As of December 31, 2015, there are no outstanding options or other awards under the 2013 Plan.

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 common stock were initially reserved for issuance under the 2006 Plan. As of December 31, 2015, a total of 2,441,150 shares of Solitario common stock are reserved and available for issuance of future awards under the 2006 Plan. As of December 31, 2015, there is one outstanding option grant under the 2006 Plan exercisable for a total of 40,000 shares at a price of Cdn\$1.60.

Equity Compensation Plan Information as of December 31, 2015:

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\$)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
2006 Plan			
Equity compensation plans approved by security holders	40,000	\$ 1.60	2,441,150
Equity compensation plans not approved by security holders	—	N/A	—
Subtotal 2006 Plan	40,000	\$ 1.60	2,441,150

Table of Contents 18

2013 Plan

Equity compensation plans approved by security holders	—	N/A	1,699,438
Equity compensation plans not approved by security holders	—	N/A	—
Subtotal 2013 Plan	—	N/A	1,699,438
Total all plans	40,000		4,140,588

Holders of our common stock

As of March 3, 2016, we have approximately 2,879 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.

Issuer purchases of equity securities

The following table provides information about our purchase of our common shares during the three months ended December 31, 2015.

<b>Period</b>	<b>Total Number of Shares Purchased</b>	<b>Average Price Paid Per Share</b>	<b>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs<sup>(1)</sup></b>	<b>Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs<sup>(1)</sup></b>
November 1, 2015—November 30, 2015	99,560	\$0.46	99,560	1,900,440
December 1, 2015—December 31, 2015	45,440	\$0.47	45,440	1,855,000

(1) On October 28, 2015, our board of directors authorized a share repurchase program pursuant to which we may acquire up to 2 million of our common shares. All purchases listed were made in open-market transactions through a broker dealer. The repurchase program expires on December 31, 2016, but may be suspended or discontinued at any time, and does not obligate us to acquire any particular amount of our shares.

**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 our audited consolidated statements of operations for each of the five years ended December 31, 2015 and our audited consolidated balance sheets as of December 31, 2015, 2014, 2013, 2012 and 2011. 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: (in thousands)	As of December 31,				
	2015	2014	2013	2012	2011
Total current assets	\$17,990	\$3,217	\$3,784	\$7,936	\$5,281
Total assets	\$18,054	\$19,040	\$19,500	\$23,483	\$22,054
Working capital (deficit) (1)	\$17,811	\$(1,987)	\$2,531	\$4,245	\$345
Long-term debt	\$—	\$—	\$3,144	\$2,437	\$2,075
Shareholders' equity	\$17,875	\$6,781	\$7,963	\$9,217	\$13,873

Statement of operations data: (in thousands, except per share amounts)	Year ended December 31,				
	2015	2014	2013	2012	2011
Property and joint venture revenue	\$—	\$200	\$300	\$300	\$242
Net income (loss) attributable to Solitario shareholders	\$8,872	\$(1,833)	\$(2,052)	\$(3,297)	\$(3,377)
Per share information: Basic and diluted					
Net income loss attributable to Solitario shareholders	\$0.23	\$(0.05)	\$(0.06)	\$(0.10)	\$(0.10)

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

Table of Contents 20

**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 an exploration stage company at December 31, 2015 under Industry Guide 7, as issued by the United States Securities and Exchange Commission ("SEC"). We were 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. We have been actively involved in mineral exploration since 1993. Our primary business is to acquire and hold a portfolio of exploration properties and other related assets for future sale, for joint venture, to create a royalty, or develop the property ourselves. As a result of the completion of the Transaction (defined below), we have shifted our primary focus from the development of the Mt. Hamilton project to our historical focus of the acquisition of precious and base metal properties and assets with exploration potential and the development or purchase of royalty interests. Although our geographic focus is in North and South America, we are now evaluating properties in other parts of the world. Our exploration properties may be developed in the future by us or through a joint venture, although we have never developed a mineral property.

We have recorded proceeds in the past from the sale of mineral property and joint venture property payments and the sale of a royalty on the Mt. Hamilton property. We recorded revenues from joint venture delay rental payments related to our Bongará project of \$200,000 during 2014. In 2015 we recorded a gain on the sale on the Transaction of \$12,309,000. During June 2012, we sold a royalty interest in our Mt. Hamilton project to Sandstorm Gold Ltd. ("Sandstorm") for \$10,000,000. Previously, our last significant revenues were recorded in 2000 upon the sale of our former Yanacocha property for \$6,000,000. Revenues from the sale or joint venture of properties, although significant when they occur, have not been a consistent annual source of revenue and would occur in the future, if at all, on an infrequent basis. At December 31, 2015, we had four exploration properties in Peru and Mexico, and one royalty property in each of Peru, Mexico and Brazil. We are conducting limited exploration activities in those countries either on our own or through joint ventures operated by our partners.

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.

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.

The potential sale, joint venture or development of our mineral properties will occur, if at all, on an infrequent basis. We have met our need for capital in the past through (i) the sale of properties; (ii) joint venture payments, including delay rental payments discussed above; (iii) the Sandstorm royalty sale during 2012; (iv) the sale of our shares of Kinross common stock; (v) borrowing against the Facility Agreement; (vi) short-term margin borrowing; and (vii) issuance of common stock, including exercise upon the of options. We have reduced our exposure to the costs of our exploration activities in the past through the use of joint ventures. 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.

Table of Contents 21

**(b). Recent Developments**Sale of Mt. Hamilton LLC

On August 25, 2015, we, along with DHI Minerals (U.S.) Ltd. (“DHI”), sold our combined interests in the Mt. Hamilton gold project (“Mt. Hamilton”) to Waterton Nevada Splitter, LLC (“Waterton”), for total cash proceeds of US\$30 million (the “Transaction”) pursuant to a definitive agreement entered into on June 10, 2015 (the “Agreement”). We sold our 80% interest in Mt. Hamilton LLC (“MH-LLC”), a limited liability company which holds 100% of the Mt. Hamilton project assets, and DHI sold its 20% interest in MH-LLC. DHI is a wholly-owned subsidiary of Ely Gold and Minerals, Inc. (“Ely”). We received gross cash proceeds of US\$24 million and Ely received gross cash proceeds of US\$6 million. Our costs and fees related to the Transaction, including broker fees and professional service fees, were \$439,000. The Transaction was structured as the sale of Solitario’s and DHI’s combined membership interests in MH-LLC. Completion of the Transaction was subject to the satisfaction of various conditions precedent, including the approval of the holders of a majority of our outstanding shares of common stock, which was received at our annual shareholder meeting on August 14, 2015.

The assets and liabilities as of December 31, 2014 related to MH-LLC and sold in the Transaction are shown as assets and liabilities of discontinued operations on the 2014 consolidated balance sheet as follows:

(in thousands)	December 31, 2014
Cash and cash equivalents	\$ 382
Other current assets	12
Current assets	394
Mineral properties, net	14,641
Other assets	982
Noncurrent assets	15,623
Total assets	\$ 16,017
Accounts payable	\$ 201
Deferred revenue	7,000
Total liabilities	\$ 7,201

During years ended December 31, 2015 and 2014, virtually all of the costs incurred by MH-LLC were directly related to the development of the Mt. Hamilton project, which were capitalized to mineral property during all periods. Accordingly, separate presentation of discontinued operations would not have resulted in any material change to the results presented in the consolidated statements of operations for the years ended December 31, 2015 and 2014.

The gain on sale of MH-LLC as of December 31, 2015 is shown in discontinued operations as follows:

(in thousands)	Year ended December 31, 2015
Proceeds from sale of MH-LLC	\$ 24,000
Net assets and liabilities disposed of	9,998
Non-controlling interest	256
Expenses of sale of MH-LLC	439
Gain on sale of discontinued operations, before tax	13,307
Income tax expense	998
Gain on sale of discontinued operations	\$ 12,309

Income taxes have been allocated between discontinued operations and continuing operations in accordance with ASC No. 740 "Income Taxes" ("ASC 740"). As a result of the anticipated use of available loss carryforwards and expected 2015 tax losses sufficient to offset the gain from the Transaction, we do not expect to have any currently payable income taxes for 2015.

#### Repayment of the RMB Loan

Concurrent with the closing of the Transaction, we paid \$5,000,000 plus \$7,000 of interest and fees to fully repay the funds we had borrowed pursuant to a facility agreement (the "Facility Agreement") with RMB Australia Holdings Limited ("RMBAH") and RMB Resources, Inc., a Delaware corporation ("RMBR") whereby we had borrowed \$5,000,000 from RMBAH ("RMB Loan"). On August 5, 2015, we entered into an agreement with RMBAH to extend the maturity date of the RMB Loan from August 21, 2015 to September 30, 2015 (the "RMB Loan Extension"). In consideration for entering into the

RMB Loan Extension, we paid RMBAH an extension fee of \$50,000 and agreed to extend the terms of warrants to acquire 1,624,748 shares of Solitario common stock (the "RMB Warrants") from August 21, 2015 to August 21, 2016. The RMB Warrants were originally issued in August 2012 to RMBAH as partial consideration for financing services provided in connection with the Facility Agreement.

Table of Contents 22

**(c). Results of Operations**

Comparison of the year ended December 31, 2015 to the year ended December 31, 2014

We had net income attributable to Solitario shareholders of \$8,872,000 or \$0.23 per basic and diluted share for the year ended December 31, 2015 compared to a net loss attributable to Solitario shareholders of \$1,833,000 or \$0.05 per basic and diluted share for the year ended December 31, 2014. As explained in more detail below, the primary reason for change to net income was the gain on sale from the Transaction. In addition factors contributing to the change from net loss in 2014 to net income during 2015 included (i) a decrease in exploration expense to \$89,000 during 2015 compared to \$279,000 during 2014; (ii) a decrease in our non-cash stock option expense to \$566,000 during 2015 compared to \$779,000 during 2014; (iii) the elimination of the net loss of our equity method investment during 2015 compared to \$153,000 during 2014; (iv) an increase in the gain on derivative instruments primarily from the sale of covered calls during 2015 of \$84,000 compared to a gain of \$39,000 during 2014; and (v) no property impairments during 2015 compared to \$20,000 of property impairments during 2014. Partially offsetting these decreases in net loss were (i) a decrease from a gain on sale of marketable equity securities to a loss on the sale of marketable equity securities of \$969,000 during 2015 compared to the gain on sale of marketable equity securities of \$472,000 during 2014; (ii) a decrease in the gain on warrant liability to \$51,000 during 2015 compared to a gain on warrant liability of \$85,000 during 2014; and (iii) an increase in our income tax expense to \$560,000 during 2015, compared to no income tax expense in 2014. Each of these items is discussed in greater detail below.

Our primary activities during 2015 and 2014, prior to the Transaction, were the 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. Up until the closing of the Transaction, during 2015 we continued our development efforts related to our Mt. Hamilton project capitalizing \$1,382,000 in mineral property costs including \$699,000 in direct development costs, property payments of \$190,000 and capitalization of interest costs of \$493,000. During 2014 we capitalized \$2,582,000 of mineral property, including \$1,699,000 in direct development costs, \$250,000 of property payments and \$633,000 of capitalized interest. In addition, we recorded an increase in other assets during 2014 of \$320,000 including bonding costs of \$20,000 and \$300,000 of advance royalty payment. The expenditures were less during 2015 as we focused on the Transaction and had completed the majority of the permitting work and engineering work related to the development of the Mt. Hamilton project necessary for the Transaction.

We decreased our exploration expenditures at our South American and Mexico properties to \$89,000 during 2015 compared to \$279,000 during 2014 as a result of a shift in our focus to effecting the Transaction, and placing all of our non-joint ventured exploration activities on care and maintenance during 2014. We did no drilling on any of our exploration projects in South America or Mexico during 2015 or 2014. Our 2016 exploration and development expenditure budget is approximately \$635,000, which is expected to be directed toward the evaluation and potential acquisition of mineral exploration properties. We cannot predict with certainty that we will acquire new mineral exploration properties during 2016; however, we will continue our reduced early-stage exploration activities. Our exploration activities may be modified, as necessary for changes in the acquisition of new properties, joint venture funding, commodity prices and deployment of our capital.

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

Property Name	2015	2014
Bongará	\$13	\$98
Pachuca	8	29
La Promesa	8	15
Norcan	2	—
Canta Colorado	—	6
Reconnaissance	58	131
Total exploration expense	\$89	\$279

Table of Contents 23

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 \$1,399,000 during 2015 compared to \$1,397,000 during 2014. We incurred comparable salary and benefits expense of \$789,000 during 2015 compared to \$734,000 during 2014. In addition, (i) legal and accounting costs were increased to \$183,000 during 2015 compared to \$133,000 during 2014 as a result of increased legal work associated with the Transaction; (ii) travel and investor relation costs were reduced to \$207,000 during 2015 compared to \$311,000 during 2014 as a result of ongoing cost reductions and reduced activities in travel and investor relations costs during 2015 and (iii) other costs related to office, insurance and miscellaneous costs were reduced to \$193,000 during 2015 compared to \$217,000 during 2014 primarily due to lower activity levels as we focused on the completion of the Transaction. We anticipate general and administrative costs for 2016 will be comparable to the costs incurred during 2015 as we will have no activity with regard to Mt. Hamilton but expect to have additional activity in South American operations and look to evaluate existing and new exploration mineral properties. We have forecast 2016 general and administrative costs to be approximately \$1,280,000, 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, 2015, we recorded \$566,000 of non-cash stock option expense for the amortization of grant date fair value with a credit to additional paid-in-capital compared to \$779,000 of non-cash stock option compensation expense during 2014. On November 24, 2015, holders of option awards voluntarily cancelled awards for 1,990,000 options from our 2006 Plan and 1,250,000 options from our 2013 Plan to allow Solitario to have additional financial flexibility. No consideration was given or received by the holders of the options to cancel the awards. The cancellation of the awards along with the increase in non-cash compensation during 2014 as a result of 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, contributed to the decrease in the non-cash stock option compensation from 2014 to 2015. See Note 10, "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 2015 we recorded a gain on derivative instruments of \$84,000 compared to a gain of \$39,000 during 2014. The gains were related to the sale of Kinross calls during 2015 and 2014. 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 intend to continue to sell covered Kinross call options during 2016. See Note 7, "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 \$18,000 of depreciation and amortization during 2015, of which we capitalized \$7,000 to mineral property in connection with the development of Mt. Hamilton compared to \$34,000 of depreciation and amortization during 2014, of which we capitalized \$21,000 to mineral property. The decrease is primarily as a result of certain equipment being fully amortized during 2014 as well as the reduction in Mt. Hamilton depreciation after the Transaction. We amortize

these assets over a three-year period. We anticipate our 2016 depreciation and amortization costs will be less than our 2015 amount.

During 2015 we incurred \$493,000 of interest costs, including (i) \$228,000 paid in cash on the RMB Loan, (ii) \$126,000 for the amortization of our deferred offering costs on the RMB Loan and (iii) \$139,000 of interest costs associated with the amortization of the discount associated with the RMB warrants issued in connection with the RMB Loan. 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. As discussed above, we capitalized all of our interest costs during 2015 and 2014 to mineral property associated with the development of the Mt. Hamilton project. See Note 2, "Mineral Properties" and Note 5 "Short-term Debt," to our consolidated financial statements in Item 8, "Financial Statements and Supplementary Data." As a result of the Transaction we do not anticipate incurring any interest cost in 2016.

We recorded interest and dividend income of \$12,000 during 2015 compared to \$1,000 during 2014. The increase during 2015 was related to the investment of the net proceeds from the Transaction in short-term money market funds since the date of the Transaction. We anticipate our interest income will increase in 2016 as a result of the investment of our cash balances in short-term money market funds, certificates of deposit and United States Treasury securities. See "Liquidity and Capital Resources," below, for further discussion of our cash and cash equivalent balances.

Table of Contents 24

During 2015 we sold 380,000 shares of Kinross stock for proceeds of \$809,000 and recorded a gain on sale of Kinross of \$541,000. 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. Prior to the Transaction, Solitario entered into an agreement with Ely and transferred 15,732,274 shares of Ely common stock it held, in exchange for cancellation of certain payment obligations related to MH-LLC, and in consideration for consent to extend the RMB Loan from August 21, 2015 to September 30, 2015 (the "Ely Consent"). Solitario recorded a loss on sale of marketable equity securities of \$1,510,000 on the transfer of the Ely common stock during 2015. We do not anticipate we will have any significant sales of marketable equity securities during 2016. See Liquidity and Capital Resources below. Any proceeds we may receive from sales of marketable equity securities during 2016 will be dependent on the quoted market price of the securities sold on the date of sale and may be at prices below the fair value at December 31, 2015.

During 2015 we recorded \$560,000 of income tax expense resulting primarily from: (a) \$1,558,000 of tax expense related to the clearing of a disproportionate tax effect lodged in other comprehensive income; and (b) \$998,000 of tax benefit related to current year losses. The disproportionate tax effect in other comprehensive income was cleared due to Solitario's disposition of substantially all of the associated available for sale securities. During 2014 we recorded no income tax benefit or expense primarily related to the reduction in the value of our holdings of marketable equity securities 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, 2015. See Note 6, "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 as well as our discussion of the use of net operating losses and current year tax losses during 2015. 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. We had no mineral property impairments during 2015. During 2014 we recorded \$20,000 of mineral property impairments related to our Pachuca property in Mexico.

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

## Cash

As of December 31, 2015 we have \$17,718,000 in cash and liquid assets. We intend to utilize a portion of this cash in to fund our exploration activities and the potential acquisition of mineral assets and our general and administrative overhead over the next several years. We expect to also use a portion of this cash to focus on our historical activities of acquiring mineral exploration properties and general minerals exploration during 2016 and beyond. In addition, we may repurchase up to 2,000,000 shares of our common stock, pursuant to the terms of a stock repurchase program announced on October 28, 2015, discussed below. As of December 31, 2015 a portion of our cash is invested in short-term money market funds.

## Sale of Mt. Hamilton LLC

On August 25, 2015 we, along with DHI, sold our combined interests in the Mt. Hamilton project to Waterton for total cash proceeds of US\$30 million in the Transaction. We received gross cash proceeds of US\$24 million for our 80% interest in MH-LLC. Our costs and fees related to the Transaction, including broker fees and professional service fees, were \$439,000. The assets and liabilities sold and the gain on the Transaction are detailed above under Recent Developments in Note 1, "Business and Summary of Significant Accounting Policies" to our consolidated financial statements under Item 8, "Financial Statements and Supplementary Data."

## Repayment of the RMB Loan

Concurrent with the closing of the Transaction, we paid RMBAH \$5,000,000 plus \$7,000 of interest and fees in full payment of the RMB Loan. On August 5, 2015, we entered into the RMB Loan Extension to extend the maturity date of the RMB Loan from August 21, 2015 to September 30, 2015. In consideration for entering into the RMB Loan Extension, we paid RMBAH an extension fee of \$50,000 and agreed to extend the terms of the RMB Warrants from August 21, 2015 to August 21, 2016. During 2015 we paid \$228,000 in cash for interest and fees on the RMB Loan, we incurred \$126,000 in interest cost for the amortization of deferred offering costs related to the RMB Loan and we incurred \$139,000 of interest cost related to the

warrant discount associated with the RMB Warrants issued in connection with the Facility Agreement. As of December 31, 2015 we have no outstanding interest-bearing debt and we do not anticipate paying any interest in the near future.

## Table of Contents 25

### RMB Warrants

Pursuant to the Facility Agreement, we issued 1,624,748 RMB Warrants to RMBAH 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 pursuant to the terms and conditions of the RMB Warrants. As of December 31, 2015 we have estimated the RMB Warrants have a \$4,000 fair value based upon a Black-Scholes model. We recorded a gain of \$51,000 during 2015 compared to a gain of \$85,000 during 2014 related to the change in the fair value of the RMB Warrants. The RMB Loan Extension, discussed above, extended the expiration date of the RMB Warrants to August 21, 2016. We currently do not expect RMBAH to exercise any of these warrants during 2016.

### Investment in Marketable Equity Securities

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. We owned 100,000 shares of Kinross common stock at December 31, 2015. The Kinross shares are recorded at their fair value of \$182,000 at December 31, 2015. We may sell our remaining 100,000 shares of Kinross during 2016, depending on market conditions and capital needs, and we have recorded our investment in Kinross shares at their fair market value as part of our current assets at December 31, 2015.

In addition, we own other marketable equity securities with a fair value of \$20,000 as of December 31, 2015 classified as available for sale and recorded at their fair value, based upon quoted market prices. We have classified all of our marketable equity securities as a current asset as we plan to sell these securities during 2016, depending on market conditions and capital needs. Changes in the fair value of marketable equity securities are recorded as gains and losses in other comprehensive income in shareholders' equity.

### Working Capital

We had working capital of \$17,811,000 at December 31, 2015 compared to a working capital deficit of \$2,042,000 as of December 31, 2014. Our working capital at December 31, 2015 is made up of our current assets, consisting primarily of our cash and cash equivalents and our marketable equity securities of \$202,000, less our current liabilities primarily consisting of our accounts payable of \$175,000 and warrant liability of \$4,000.

Cash and cash equivalents were \$17,718,000 as of December 31, 2015 compared to \$487,000 at December 31, 2014. As of December 31, 2015 our cash balances along with our marketable equity securities are adequate to fund our expected expenditures over the next year.

The nature of the mineral exploration business requires significant sources of capital to fund exploration, development and operation of mining projects. We will need additional capital if we decide to develop or operate any of our current exploration projects or any projects or assets we may acquire. We anticipate we would finance any such development through the use of our cash reserves, joint ventures, issuance of debt or equity, or the sale of other exploration projects or assets.

#### Stock-based Compensation Plans

During the year ended December 31, 2015, no options were granted or exercised from the 2006 Plan or the 2013 Plan. During the year ended December 31, 2014 we granted options for 1,990,000 shares from the 2006 Plan with an exercise price of Cdn\$1.60 per share, equal to the quoted price on the TSX on the date of grant. The options vested 25% on the date of grant and 25% on each the next three anniversary dates. In addition, during 2014 we granted restricted stock units that vested on the grant date from the 2013 Plan for a total of 50,562 shares and issued as shares to two employees as part of their severance pay upon the employees' termination from Solitario. There were no other stock or option awards during 2014 or 2015 from either the 2006 or 2013 Plans. On November 24, 2015, holders of option awards voluntarily cancelled awards for 1,990,000 options from our 2006 Plan and 1,250,000 options from our 2013 Plan to allow Solitario to have additional financial flexibility. No consideration was given or received by the holders of the options to cancel the awards. As of December 31, 2015, we have one option grant outstanding for 40,000 options exercisable at a price of Cdn\$1.60. We do not anticipate the exercise of any options from the 2006 or 2013 Plans during 2016.

#### Sale of Common Stock

On February 28, 2014 we sold 1,600,000 shares of our common stock in a private placement for gross proceeds of \$1,680,000 (the "Offering"). There were no other sales of common stock for cash during the years ended December 31, 2015 or 2014.

#### Table of Contents 26

During years ended December 31, 2015 and 2014, we issued 66,500 and 35,000 shares of our common stock, respectively, at their fair value, based upon quoted market prices of \$51,000 and \$38,000, respectively, to an underlying leaseholder at the Mt. Hamilton project for mineral property pursuant to our leasehold agreement. There were no other issuances of shares of our common stock during 2015.

#### Share Repurchase Program

On October 28, 2015, our Board of Directors approved a share repurchase program that authorizes us to purchase up to two million shares of our outstanding common stock through December 31, 2016. All shares purchased will be cancelled and reduce our shares of outstanding common stock. The amount and timing of any shares purchased will be determined by our management and the purchases will be effected in the open market or in privately negotiated transactions based upon market conditions and other factors, including price, regulatory requirements and capital availability and in compliance with applicable state and federal securities laws. Purchases may also be made in accordance with Rule 10b-18 of the Securities Act. The repurchase program does not require the purchase of any minimum number of shares of common stock by the Company, and may be suspended, modified or discontinued at any time without prior notice. No purchases will be made outside of the United States, including on the Toronto Stock Exchange. Payment for shares of common stock repurchased under the program will be funded using the Company's working capital. As of December 31, 2015, we have purchased a total of 145,000 shares of our common stock for an aggregate purchase price of \$67,000 under the share repurchase program and these shares are no longer included in our issued and outstanding shares. Subsequent to December 31, 2015, we purchased an additional 124,195 shares for an aggregate purchase price of \$58,000 (for a total of 269,195 shares purchased under the share repurchase program) and as a result have 39,044,994 shares outstanding as of March 3, 2015.

#### Off-balance sheet arrangements

As of December 31, 2015 and 2014, we have no off-balance sheet arrangements.

#### (e). Cash Flows

Net cash used in operations during the year ended December 31, 2015 increased to \$1,723,000 compared to \$1,610,000 for 2014 primarily as a result of (i) cash used in discontinued operations of \$190,000 prior to the date of the Transaction during 2015 with no comparable item during 2014 and (ii) an increase in the use of cash for the change in other current assets. Partially offsetting these increases in the uses of cash were (i) a decrease in the use of cash for the payment of current liabilities and (ii) a decrease in exploration expense during 2015 compared to 2014, all of which are discussed in more detail above in "Results of Operations."

Net cash provided by (used in) investing activities increased to \$23,766,000 cash provided during 2015 compared to a use of \$(1,691,000) during 2014. The primary reason for the increase was as a result of the \$24,000,000 received in the Transaction. In addition (i) we used less cash in development activities at Mt. Hamilton during 2015, which is reflected in the cash used from activities of discontinued operations of \$1,059,000 during 2015 compared to \$2,778,000 during 2014; (ii) we received \$809,000 from the sale of Kinross stock during 2015 compared to \$556,000 from the sale of Kinross stock during 2014; and (iii) we received \$84,000 from the sale of Kinross covered calls during 2015 compared to \$36,000 during 2014. The Transaction is more fully discussed above under “Recent Developments.”

Net cash used in financing activities was \$4,812,000 during 2015 compared to cash provided by financing activities of \$2,078,000 during 2014. The primary reason for the change in cash provided from financing activities in 2015 was the repayment of the \$5,000,000 RMB Loan, discussed above. This is compared to 2014 when we (i) borrowed long-term debt of \$1,500,000 from the RMB Loan; and (ii) issued stock in a private placement for net proceeds of \$1,630,000. Partially offsetting this decrease in the use of cash between 2015 and 2014 were the net payments of short-term debt of \$802,000 during 2014 and \$250,000 paid to the noncontrolling interest during 2014.

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

##### Development Activities

With the completion of the Transaction we no longer have any ongoing development activities.

##### 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 2015 mineral and surface property rental and option payments, included in exploration expense, were \$8,000. Our 2016 total exploration property rentals and option payments for properties we own or operate are estimated to be approximately \$341,000. Assuming that our joint ventures continue in their current status and that we do not appreciably change our property positions on existing properties, we estimate that our joint venture partners will pay on our behalf, or reimburse us approximately \$327,000 of these annual payments. These obligations are detailed below under “Contractual Obligations.” In addition, we may be required to make further payments in the future if we elect to exercise our options under those agreements or if we enter into new agreements.

Environmental Compliance

We are subject to various federal, state and local environmental laws and regulations in the countries where we operate. We are required to obtain permits in advance of initiating certain of our exploration activities, to monitor and report on certain activities to appropriate authorities, and to perform remediation of environmental disturbance as a result of certain of our activities. Historically, the nature of our activities of review, acquisition and exploration of properties prior to the establishment of reserves, which may include mapping, sampling, geochemistry and geophysical studies, as well as some limited exploration drilling, has not resulted in significant environmental impacts in the past. We have historically carried on our required environmental remediation expenditures and activities, if any, concurrently with our exploration activities and expenditures. The expenditures to comply with our environmental obligations are included in our exploration expenditures in the statement of operations and have not been material to our capital or exploration expenditures, and have not had a material effect on our financial position. For the years ended December 31, 2015 and 2014, we have not capitalized any costs related to environmental control facilities. We do not anticipate our exploration activities will result in any material new or additional environmental expenditures or liabilities in the near future.

Contractual Obligations

The following table provides an analysis of our contractual obligations:

(in thousands)	As of December 31, 2015				
	Payments due by period				
	Total	Less than 1 year	1–3 years	4–5 years	More than 5 years
Operating Lease Obligations (1)	\$ 94	\$ 33	\$61	\$ -	\$ -
Mineral property option and lease payments	\$ 14	\$ 14	\$ -	\$ -	\$ -
(1)	<i>Lease obligation on our Wheat Ridge Colorado office.</i>				

**(g). Exploration Joint Ventures, Royalty and Other Properties**

The following discussion relates to an analysis of our anticipated property exploration plans as of December 31, 2015. Please also see Note 2, “Mineral Properties,” to the consolidated financial statements in Item 8, “Financial Statements and Supplementary Data,” and our discussion of our properties under Item 2, “Properties” of this Annual Report on Form 10-K for a more complete discussion of all of our mineral properties.

Bongará

The Bongará project is an advanced-stage high-grade zinc project in Peru. Based on extensive exploration and development work conducted to date, we believe the property has excellent potential to be developed into a mine over the next several years. In August 2006 we signed a Letter Agreement with Votorantim Metais (“Votorantim”), granting

Votorantim the right to earn up to a 70% interest in the project by meeting certain spending and development milestones. During 2015 Votorantim announced the transfer of the Bongará project to Compania Minera Milpo S.A.A. (“Milpo”), an affiliate of Votorantim. Milpo has assumed all of the development responsibilities of Votorantim, which owns 51% of Milpo. The Bongará project hosts the Florida Canyon zinc deposit, where high-grade zinc mineralization has been encountered in drill holes over an area approximately 2.5 kilometers by 1.3 kilometers in dimension.

Milpo is funding and managing all work conducted on the project. Work in 2016 is expected to focus on additional road building activities to establish access to surface drilling platforms to conduct future drilling activities. Additional prefeasibility-level studies are also planned by Milpo.

#### Yanacocha Royalty Property

The 61,000-hectare Yanacocha royalty property is located in northern Peru immediately north of Newmont Mining-Buenaventura's Minera Yanacocha Mine, one of the largest gold mines in South America. We acquired the property in 1993 and sold it to Newmont in 2000 for \$6.0 million and we retained a NSR on the property. We consider the property to be an early-stage exploration property, but believe it has good potential to host gold mineralization. We will not receive any royalties from Yanacocha until such time as Newmont develops and places into operation a mine on the properties covered by our royalty. Accordingly, we cannot predict revenue from our royalty in the near future, if ever.

#### Table of Contents 28

Other Properties

We have significantly reduced activities in Peru and Mexico. We have budgeted 2016 exploration expenditures of \$635,000 for exploration and evaluation of potential new acquisitions of properties primarily in North and South America, but potentially in other regions of the world. We expect to carry on limited exploration activities during 2016 by utilizing contract geologists.

**(h). Discontinued Projects**

During 2015 we did not have any mineral property impairments. During 2015 we converted our operating interest in the Pedra Branca project to a 1% NSR. We had no remaining investment in the Pedra Branca project at the time of the termination of our operating interest. In addition, we transferred our royalty interest in the Mercurio gold property in Brazil during 2015 to a private Brazilian party in return for the elimination of potential administrative and regulatory costs associated with our exit from Brazil. We had no remaining investment in Mercurio when we exited from operations in Brazil. During 2014, Solitario recorded \$20,000 of mineral property write-downs related to its Pachuca exploration project in Mexico.

**(i). Significant Accounting Policies**

See Note 1, "Business and Summary of Significant Accounting Policies," in Item 8, "Financial Statements and Supplementary Data" for a discussion of our significant accounting policies.

**(j). Related Party Transactions**

None

**(k). Recent Accounting Pronouncements**

See Note 1, "Business and Summary of Significant Accounting Policies," in Item 8 "Financial Statements and Supplementary Data" for a discussion of recent accounting pronouncements.

**Item 7A. Quantitative and Qualitative Disclosures about Market Risk**

Smaller reporting companies are not required to provide the information required by this item.

Table of Contents 29

**Item 8. Financial Statements and Supplementary Data**

	Page
Consolidated Financial Statements	
Report of Independent Registered Public Accounting Firm	31
Consolidated Balance Sheets as of December 31, 2015 and 2014	32
Consolidated Statements of Operations for the years ended December 31, 2015 and 2014	33
Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2015 and 2014	34
Consolidated Statements of Shareholders' Equity for the years ended December 31, 2015 and 2014	35
Consolidated Statements of Cash Flows for the years ended December 31, 2015 and 2014	36
Notes to Consolidated Financial Statements	37

Table of Contents 30

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Shareholders

Solitario Exploration & Royalty Corp.

Wheat Ridge, Colorado

We have audited the accompanying consolidated balance sheets of Solitario Exploration & Royalty Corp. (the "Company") as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive loss, shareholders' equity, and cash flows for each of the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position Solitario Exploration & Royalty Corp. as of December 31, 2015 and 2014, and the results of its operations and its cash flows for each of the years then ended, in conformity with accounting principles generally accepted in the United States of America.

EKS&H LLLP

March 3, 2016

Denver, Colorado

Table of Contents 31

## SOLITARIO EXPLORATION &amp; ROYALTY CORP.

## CONSOLIDATED BALANCE SHEETS

(in thousands of U.S. dollars, except share and per share amounts)	December 31, 2015	December 31, 2014
<b>Assets</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$17,718	\$487
Investments in marketable equity securities, at fair value	202	2,308
Prepaid expenses and other	70	28
Current assets of discontinued operations	—	394
Total current assets	17,990	3,217
Mineral properties	19	19
Other assets	45	181
Noncurrent assets of discontinued operations	—	15,623
Total assets	\$18,054	\$19,040
<b>Liabilities and Shareholders' Equity</b>		
<b>Current liabilities:</b>		
Accounts payable	\$175	\$142
Current portion long-term debt, net of discount	—	4,861
Warrant liability	4	55
Current liabilities of discontinued operations	—	201
Total current liabilities	179	5,259
Noncurrent liabilities of discontinued operations	—	7,000
<b>Commitments and contingencies (Notes 2 and 9)</b>		
<b>Shareholders' equity:</b>		
<b>Solitario shareholders' equity</b>		
Preferred stock, \$0.01 par value, authorized 10,000,000 shares (none issued and outstanding at December 31, 2015 and 2014)	—	—
Common stock, \$0.01 par value, authorized, 100,000,000 shares (39,169,189 and 39,247,689 , respectively, shares issued and outstanding at December 31, 2015 and 2014)	392	393
Additional paid-in capital	55,063	54,512
Accumulated deficit	(37,691)	(46,563)
Accumulated other comprehensive income (loss)	111	(1,120 )
Total Solitario shareholders' equity	17,875	7,222
Noncontrolling interest	—	(441 )
Total shareholders' equity	17,875	6,781

Total liabilities and shareholders' equity	\$18,054	\$19,040
--------------------------------------------	----------	----------

See Notes to Consolidated Financial Statements.

Table of Contents 32

## SOLITARIO EXPLORATION &amp; ROYALTY CORP.

## CONSOLIDATED STATEMENTS OF OPERATIONS

FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014

(in thousands of U.S. Dollars, except per share amounts)	For the year ended	
	2015	2014
Property and joint venture revenue		
Joint venture property payments	\$—	\$200
Costs, expenses and other		
Exploration expense	89	279
Depreciation and amortization	11	13
General and administrative	1,965	2,176
Gain on derivative instruments	(84 )	(39 )
Property abandonment and impairment	—	20
Gain on sale of assets	(7 )	(1 )
Interest expense and dividend income (net)	(12 )	(1 )
Total costs, expenses and other	1,962	2,447
Other (expense) income		
(Loss) gain on sale of marketable equity securities	(969 )	472
Gain on warrant liability	51	85
Equity in net loss of equity method investment	—	(153 )
Total other (expense) income	(918 )	404
Loss before income tax	(2,880 )	(1,843 )
Income tax expense	(560 )	—
Loss from continuing operations	(3,440 )	(1,843 )
Gain on sale of discontinued operations	12,309	—
Net income (loss)	8,869	(1,843 )
Loss attributable to noncontrolling interest	3	10
Net income (loss) attributable to Solitario shareholders	\$8,872	\$(1,833 )
Income (loss) per common share attributable to Solitario shareholders basic and diluted		
Continuing operations	\$(0.09 )	\$(0.05 )
Discontinued operations	0.31	—
Net income (loss)	\$0.23	\$(0.05 )
Weighted average shares outstanding		
Basic and diluted	39,287	38,967

See Notes to Consolidated Financial Statements.

Table of Contents 33

SOLITARIO EXPLORATION & ROYALTY CORP.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014

(in thousands of U.S. Dollars)	For the year ended December 31,	
	2015	2014
Net income (loss) for the period, before other comprehensive loss	\$8,869	\$(1,843)
Other comprehensive income (loss):		
Unrealized gain (loss) on marketable equity securities, net of deferred taxes	1,231	(1,580)
Comprehensive income (loss)	10,100	(3,423)
Loss attributable to noncontrolling interests	3	10
Comprehensive income (loss) attributable to Solitario shareholders	\$10,103	\$(3,413)

See Notes to Consolidated Financial Statements.

Table of Contents 34

## SOLITARIO EXPLORATION &amp; ROYALTY CORP.

## CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014

(in thousands, of U.S. Dollars except share amounts)	Common Stock Shares	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Solitario Shareholders' Equity	Non- Controlling Interest	Total Shareholders' Equity
<b>Balance at December 31, 2013</b>	<b>375,312</b>	<b>\$1,127,511,963</b>	<b>\$(44,730)</b>	<b>\$460</b>	<b>\$8,068</b>	<b>\$(105)</b>	<b>\$7,963</b>
Issuance of shares from restricted stock grant	50,562	45	-	-	45	-	45
Issuance of shares and \$250 of cash to noncontrolling shareholder for future earn-in	50,000	75	-	-	76	(326)	(250)
Issuance of shares in private placement	1,660,000	1,614	-	-	1,630	-	1,630
Stock option expense	-	778	-	-	778	-	778
Issuance of shares for mineral property	351,000	37	-	-	38	-	38
Net loss	-	-	(1,833)	-	(1,833)	(10)	(1,843)
Net unrealized (loss) on marketable equity securities (net of tax of \$0)	-	-	-	(1,580)	(1,580)	-	(1,580)
<b>Balance at December 31, 2014</b>	<b>393,937</b>	<b>\$7,689,545,12</b>	<b>(46,563)</b>	<b>(1,120)</b>	<b>7,222</b>	<b>(441)</b>	<b>6,781</b>
Stock option expense	-	566	-	-	566	-	566
Issuance of shares for mineral property	66,500	51	-	-	51	-	51
Noncontrolling interest contribution	-	-	-	-	-	188	188
Sale of MH-LLC	-	-	-	-	-	256	256
Repurchase of shares for cancellation	(145,000)	(66)	-	-	(67)	-	(67)
Net income (loss)	-	-	8,872	-	8,872	(3)	8,869
	-	-	-	1,231	1,231	-	1,231

Net unrealized gain  
on marketable equity  
securities (net of deferred  
taxes)

<b>Balance at December 31, 2015</b>	<b>39,102,189</b>	<b>\$55,063</b>	<b>\$(37,691)</b>	<b>\$ 111</b>	<b>\$17,875</b>	<b>\$ -</b>	<b>\$17,875</b>
-------------------------------------	-------------------	-----------------	-------------------	---------------	-----------------	-------------	-----------------

See Notes to Consolidated Financial Statements.

Table of Contents 35

## SOLITARIO EXPLORATION &amp; ROYALTY CORP.

## CONSOLIDATED STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014

(in thousands of U.S. Dollars)	For the year ended December 31,	
	2015	2014
Operating activities:		
Net income (loss)	\$8,869	\$(1,843)
Adjustments to reconcile net income (loss) to net cash used in operating activities:		
(Gain) loss on derivative instruments	(84 )	(39 )
Depreciation and amortization	11	13
Loss on equity method investment	—	153
Property abandonment and impairment	—	20
Employee stock option expense	566	778
Deferred income taxes	560	—
(Gain) loss on warrant liability	(51 )	(85 )
Loss (gain) on asset and equity security sales	962	(473 )
(Gain) on sale of discontinued operations	(12,309)	—
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(53 )	60
Accounts payable and other current liabilities	(4 )	(225 )
Net cash (used in) operating activities from continuing operations	(1,533 )	(1,641)
Net cash (used in ) operating activities from discontinued operations	(190 )	31
Net cash (used in) operating activities	(1,723 )	(1,610)
Investing activities:		
Additions to other assets	(8 )	(5 )
Sale of derivative instrument, net	84	36
Proceeds from sale of MH-LLC	24,000	—
Proceeds from sale of marketable equity securities	809	556
Proceeds from sale of other assets	7	—
Net cash provided by (used in) investing activities from continuing operations	24,892	587
Net cash (used in) investing activities from discontinued operations	(1,059 )	(2,278)
Net cash provided by (used in) investing activities	23,833	(1,691)
Financing activities:		
Repayment of long-term debt	(5,000 )	—
Noncontrolling interest contribution, net	188	—
Repurchase of Solitario common stock for cancellation	(67 )	—
Proceeds from issuance of debt, net	—	1,500
Proceeds from issuance of common stock , net	—	1,630

Edgar Filing: SOLITARIO EXPLORATION & ROYALTY CORP. - Form 10-K

Short-term borrowing	—	100
Repayment of short-term borrowing	—	(902 )
Payment to noncontrolling interest	—	(250 )
Net cash (used by) provided by financing activities	(4,879 )	2,078
Net (decrease) increase in cash and cash equivalents	17,231	(1,223)
Cash and cash equivalents, beginning of year	487	1,710
Cash and cash equivalents, end of year	\$17,718	\$487
Supplemental disclosure of cash flow information:		
Cash paid for interest, capitalized to mineral property	\$228	\$220
Supplemental disclosure of non-cash flow investing and financing activities:		
Capitalized non-cash interest	\$265	\$412
Capitalized depreciation	\$7	\$21
Issuance of stock for mineral property	\$51	\$38
Capitalized property payment included in accounts payable	\$—	\$150
Issuance of stock from restricted stock grant	\$—	\$45

See Notes to Consolidated Financial Statements.

Table of Contents 36

## SOLITARIO EXPLORATION &amp; ROYALTY CORP.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2015 and 2014

1. Business and Summary of Significant Accounting Policies*Recent developments*Sale of Mt. Hamilton LLC

On August 25, 2015 Solitario Exploration & Royalty Corp. (“Solitario” or the “Company”), along with DHI Minerals (U.S.) Ltd. (“DHI”), sold their combined interests in the Mt. Hamilton gold project (“Mt. Hamilton”) to Waterton Nevada Splitter, LLC (“Waterton”), for total cash proceeds of US\$30 million (the “Transaction”) pursuant to a definitive agreement entered into on June 10, 2015 (the “Agreement”). Solitario sold its 80% interest in Mt. Hamilton LLC (“MH-LLC”), a limited liability company which holds 100% of the Mt. Hamilton project assets, and DHI sold its 20% interest in MH-LLC. DHI is a wholly-owned subsidiary of Ely Gold and Minerals, Inc. (“Ely”). Solitario received gross cash proceeds of US\$24 million and DHI received gross cash proceeds of US\$6 million. Solitario’s costs and fees related to the Transaction, including broker fees and professional service fees, were \$439,000. The Transaction was structured as the sale of Solitario’s and DHI’s combined membership interests in MH-LLC. Completion of the Transaction was subject to the satisfaction of various conditions precedent, including the approval of the holders of a majority of Solitario’s outstanding shares of common stock, which was received at Solitario’s annual shareholder meeting on August 14, 2015.

The assets and liabilities as of December 31, 2014 related to MH-LLC and sold in the Transaction are shown as assets and liabilities of discontinued operations on the 2014 consolidated balance sheet as follows:

(in thousands)	December 31, 2014
Cash and cash equivalents	\$ 382
Other current assets	12
Current assets	394
Mineral properties, net	14,641
Other assets	982
Noncurrent assets	15,623
Total assets	\$ 16,017
Accounts payable	\$ 201

Edgar Filing: SOLITARIO EXPLORATION & ROYALTY CORP. - Form 10-K

Deferred revenue	7,000
Total liabilities	\$ 7,201

During years ended December 31 2015 and 2014, virtually all of the costs associated with MH-LLC and the assets sold were directly related to the development of the Mt. Hamilton project, and were capitalized to mineral property during all periods. Accordingly, separate presentation of discontinued operations would not have resulted in any material change to the results presented in the consolidated statements of operations for the years ended December 31, 2015 and 2014.

The gain on sale of MH-LLC as of December 31, 2015 is shown in gain on sale of discontinued operations as follows:

(in thousands)	Year ended December 31, 2015
Proceeds from sale of MH-LLC	\$ 24,000
Net assets and liabilities disposed of	9,998
Noncontrolling interest	256
Expenses of sale of MH-LLC	439
Gain on sale of discontinued operations, before tax	13,307
Income tax expense	998
Gain on sale of discontinued operations	\$ 12,309

Income taxes have been allocated between discontinued operations and continuing operations in accordance with ASC No. 740, "Income Taxes" ("ASC 740"). As a result of the anticipated use of available loss carryforwards and expected 2015 tax losses sufficient to offset the gain from the Transaction, Solitario does not expect to have any currently payable income taxes for 2015. See Note 6, "Income Taxes", below.

Table of Contents 37

### Repayment of the RMB Loan

Concurrent with the closing of the Transaction, Solitario paid \$5,000,000 plus \$7,000 of interest and fees to fully repay the funds Solitario had borrowed pursuant to a facility agreement (the "Facility Agreement") with RMB Australia Holdings Limited ("RMBAH") and RMB Resources, Inc., a Delaware corporation ("RMBR") whereby Solitario had borrowed \$5,000,000 from RMBAH ("RMB Loan"). On August 5, 2015, Solitario entered into an agreement with RMBAH to extend the maturity date of the RMB Loan from August 21, 2015 to September 30, 2015 (the "RMB Loan Extension"). In consideration for entering into the RMB Loan Extension, Solitario paid RMBAH an extension fee of \$50,000 and agreed to extend the terms of warrants to acquire 1,624,748 shares of Solitario common stock (the "RMB Warrants") from August 21, 2015 to August 21, 2016. The RMB Warrants were originally issued in August 2012 to RMBAH as partial consideration for financing services provided in connection with the Facility Agreement.

### *Business and company formation*

Solitario is an exploration stage company at September 30, 2015 under Industry Guide 7, as issued by the United States Securities and Exchange Commission ("SEC"). 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, Solitario became a publicly traded company on the Toronto Stock Exchange (the "TSX") through its initial public offering. Solitario has been actively involved in mineral exploration since 1993. Solitario's primary business is to acquire and hold a portfolio of exploration properties and other related assets for future sale or joint venture or to create a royalty prior to the establishment of proven and probable reserves. As a result of the completion of the Transaction, Solitario has shifted its primary focus from the development of the Mt. Hamilton project to Solitario's historical focus of the acquisition of precious and base metal properties and assets with exploration potential and the development or purchase of royalty interests.

Solitario has recorded revenue in the past from the sale of mineral property and joint venture property payments and the sale of a royalty on its Mt. Hamilton property. Revenues from the sale or joint venture of properties, although significant when they occur, have not been a consistent annual source of revenue and would only occur in the future, if at all, on an infrequent basis.

### *Financial reporting*

The consolidated financial statements include the accounts of Solitario and its wholly-owned subsidiaries and controlled non-wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America ("generally accepted accounting principles"), and are expressed in US dollars.

*Revenue recognition*

Solitario records delay rental payments as revenue in the period received. Any payments received for the sale of property interests are recorded as a reduction of the related property's capitalized cost. Proceeds which exceed the capitalized cost of the property without reserves are recognized as revenue. Payments received on the sale of properties with reserves are recognized as revenue to the extent the proceeds exceed the proportionate basis in the assets sold.

*Use of estimates*

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Some of the more significant estimates included in the preparation of Solitario's financial statements pertain to: (i) Solitario's investment in cash and cash equivalents; (ii) the recoverability of mineral properties related to its mineral exploration properties and their future exploration potential; (iii) the fair value of Solitario's stock option grants to employees; (iv) the ability of Solitario to realize its deferred tax assets; (v) Solitario's investment in marketable equity securities; (vi) the fair value of Solitario's liability for warrants Solitario granted to RMBAH upon entering into the Facility Agreement.

Table of Contents 38

In performing its activities, Solitario has incurred certain costs for mineral properties. The recovery of these costs is ultimately dependent upon the sale of mineral property interests or the development of economically recoverable ore reserves and the ability of Solitario to obtain the necessary permits and financing to successfully place the properties into production, and upon future profitable operations, none of which is assured.

#### *Cash equivalents*

Cash equivalents include investments in highly liquid money-market securities with original maturities of three months or less when purchased. As of December 31, 2015 and 2014, Solitario had concentrations of cash and cash equivalents in excess of federally insured amounts and cash in foreign banks, which are not covered under the federal deposit insurance rules for the United States.

#### *Mineral properties*

Solitario expenses all exploration costs incurred on its mineral properties prior to the establishment of proven and probable reserves through the completion of a feasibility study. Initial acquisition costs of its mineral properties are capitalized. Solitario began capitalizing all of its development expenditures on its Mt. Hamilton project, subsequent to the completion of a feasibility study in 2012 through the date of the Transaction. Solitario regularly performs evaluations of its investment in mineral properties to assess the recoverability and/or the residual value of its 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 established guidelines based upon undiscounted future net cash flows from the asset or upon the determination that certain exploration properties do not have sufficient potential for economic mineralization.

#### *Derivative instruments*

Solitario accounts for its derivative instruments in accordance with ASC 815, "Accounting for Derivative Instruments and Hedging Activities" ("ASC 815"). Solitario has not designated its covered calls as hedging instruments and any changes in the fair market value of the covered calls and its warrants are recognized in the statement of operations in the period of the change.

#### *Fair value*

FASB ASC 820, "Fair Value Measurements and Disclosures" ("ASC 820") establishes a framework for measuring fair value and requires enhanced disclosures about fair value measurements. ASC 820 clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. For certain of Solitario's financial instruments, including cash and cash equivalents and accounts payable, the carrying amounts approximate fair value due to their short-term maturities. Solitario's marketable equity securities and any covered call options against those marketable equity securities are carried at their estimated fair value based on quoted market prices. See Note 8, "Fair Value of Financial Instruments," below.

#### *Marketable equity securities*

Solitario's investments in marketable equity securities are classified as available-for-sale and are carried at fair value, which is based upon quoted prices of the securities owned. Solitario records investments in marketable equity securities as available-for-sale for investments in publicly traded marketable equity securities for which it does not exercise significant control and where Solitario has no representation on the Board of those companies and exercises no control over the management of those companies. The cost of marketable equity securities sold is determined by the specific identification method. Changes in fair value are recorded in accumulated other comprehensive income within shareholders' equity, unless a decline in fair value is considered other than temporary, in which case the decline is recognized as a loss in the consolidated statements of operations.

#### *Foreign exchange*

The United States dollar is the functional currency for all of Solitario's foreign subsidiaries. Although Solitario's South American exploration activities have been conducted primarily in Brazil, Peru and Mexico, a portion of the payments under the land, leasehold and exploration agreements of Solitario are denominated in United States dollars. Foreign currency gains and losses are included in the results of operations in the period in which they occur.

Table of Contents 39

*Equity method investments*

Solitario records its share of income or loss of unconsolidated subsidiaries where it has a significant influence over the unconsolidated subsidiary, under the equity method of accounting, as an increase or decrease in its investment in the unconsolidated subsidiary. Solitario accounted for its investment in Pedra Branca do Mineracao, Ltd. ("PBM") under the equity method since July 2010, when Anglo Platinum Limited ("Anglo") earned a 51% interest in PBM. Solitario terminated its interest in PBM during 2015, and has no equity method investments as of December 31, 2015. See Note 2, "Mineral Properties," below.

*Income taxes*

Solitario accounts for income taxes in accordance with ASC 740, "Accounting for Income Taxes." Under ASC 740, income taxes are provided for the tax effects of transactions reported in the financial statements and consist of taxes currently due plus deferred taxes related to certain income and expenses recognized in different periods for financial and income tax reporting purposes. Deferred tax assets and liabilities represent the future tax return consequences of those differences, which will either be taxable or deductible when the assets and liabilities are recovered or settled. Deferred taxes are also recognized for operating losses and tax credits that are available to offset future taxable income and income taxes, respectively. A valuation allowance is provided if it is more likely than not that some portion or all of the deferred tax assets will not be realized.

*Accounting for uncertainty in income taxes*

ASC 740 clarifies the accounting for uncertainty in income taxes recognized in a company's financial statements. ASC 740 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC 740 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. ASC 740 provides that a company's tax position will be considered settled if the taxing authority has completed its examination, the company does not plan to appeal, and it is remote that the taxing authority would reexamine the tax position in the future. These provisions of ASC 740 had no effect on Solitario's financial position or results of operations. See Note 6, "Income Taxes," below.

*Earnings per share*

The calculation of basic and diluted earnings (loss) per share is based on the weighted average number of shares of common stock outstanding during the years ended December 31, 2015 and 2014. Potentially dilutive shares related to outstanding common stock options of 40,000 and 3,748,000 for the years ended December 31, 2015 and 2014, respectively, and RMB warrants of 1,624,748 for the years ended December 31, 2015 and 2014 were excluded from the calculation of diluted earnings (loss) per share because the effects were anti-dilutive.

*Employee stock compensation and incentive plans*

Solitario classifies all of its stock options as equity options in accordance with the provisions of ASC 718, “Compensation – Stock Compensation.” See Note 10, “Employee Stock Compensation Plans,” below.

*Recent accounting pronouncements*

There are no recent accounting pronouncements, adopted or issued by the FASB during the year ended December 31, 2015 that would have a material impact upon Solitario.

2. Mineral Properties:

The following table details Solitario’s capitalized investment in exploration mineral property:

(in thousands)	December 31, 2015 2014	
Exploration		
La Promesa (Peru)	\$5	\$5
Norcan (Mexico)	6	6
Aconchi (Mexico)	5	5
Canta Colorado (Mexico)	3	3
Total exploration mineral property	\$19	\$19

Table of Contents 40

*Mt. Hamilton*

On February 22, 2012, Solitario earned an 80% interest in MH-LLC as a result of the completion of a feasibility study on the Mt. Hamilton project (the “Feasibility Study”) prepared by SRK Consulting (US), Inc. of Lakewood, Colorado (“SRK”). In October 2014, SRK, on behalf of Solitario completed an updated feasibility study on the Mt. Hamilton project.

Solitario sold its interest in the Mt. Hamilton project on August 25, 2015 through the Transaction. Mt. Hamilton capitalized costs are included in discontinued operations at December 31, 2014. See above in “Recent Developments” in Note 1, “Business and Summary of Significant Accounting Policies.”

Capitalized costs

Solitario has been capitalizing its development costs incurred at its Mt. Hamilton project subsequent to the completion of the Feasibility Study in February 2012. The following table details the capitalization during 2015 up to the date of the Transaction and for the year ended December 31, 2014:

(in thousands)	Year ended	
	December 31,	
	2015	2014
Development expenditures	\$692	\$1,678
Capitalized interest	493	633
Property payments	190	250
Capitalized depreciation	7	21
Total capitalized costs	\$1,382	\$2,582

Included in the property payments during 2015 and 2014 are the issuance of 66,500 and 35,000, respectively, common shares of Solitario with fair values of \$51,000 and \$38,000, respectively, issued to underlying leaseholders, which were recorded as an increase to common stock, for the par value of the shares issued and to additional paid-in-capital. These capitalized costs at December 31, 2014 are included in discontinued operations and all costs associated with Mt. Hamilton related to the Transaction were included in the net assets disposed of in determining the gain on sale of MH-LLC during 2015.

Solitario also capitalized \$300,000 during 2014 of advance royalty payments to the underlying leaseholder as long-term other assets. See Note 4, “Other Assets,” below.

*Exploration property*

Solitario's exploration mineral properties at December 31, 2015 consist of use rights related to its exploration properties, and the value of such assets is primarily driven by the nature and amount of economic mineral ore believed to be contained, or potentially contained, in such properties. The amounts capitalized as mineral properties include concession and lease or option acquisition costs. Capitalized costs related to a mineral property represent its fair value at the time it was acquired. At December 31, 2015, none of Solitario's exploration properties have production (are operating) or contain proven or probable reserves. Solitario's exploration mineral properties represent interests in properties that Solitario believes have exploration and development potential. Solitario's mineral use rights generally are enforceable regardless of whether proven and probable reserves have been established.

In addition to its capitalized exploration properties, Solitario has an interest in its Bongará exploration concession, which is currently subject to a joint venture agreement where joint venture partners made stand-by joint venture payments to Solitario during 2014. Solitario records joint venture property payment revenue received in excess of capitalized costs and recorded \$200,000 of standby joint venture property revenue on its Bongará project during 2014. Per the joint venture agreement, as of December 31, 2015, no further standby joint-venture payments are due to Solitario on the Bongará project. At December 31, 2015 and 2014, Solitario has no remaining capitalized costs related to its Bongará joint venture.

Solitario previously sold its mineral interests in its Yanacocha exploration projects and retained a royalty interest. Solitario has no capitalized costs related to its Yanacocha royalty interest.

Table of Contents 41

*Discontinued projects*

During 2015, Solitario converted its operating interest in Pedra Branca Mineracao, Ltd (“PBM”), which was the owner of the Pedra Branca project in Brazil, to a 1% net smelter royalty in the Pedra Branca project, upon the termination of its interest in PBM. Previously Solitario had accounted for its interest in PBM under the equity method of accounting through 2014, recognizing a reduction of its remaining interest in PBM of \$153,000 during 2014, and has no remaining asset value assigned to PBM or Pedra Branca as of December 31, 2015 and 2014. During 2014, Solitario recorded \$20,000 of mineral property write-downs related to its Pachuca exploration project in Mexico.

*Exploration Expense*

The following items comprised exploration expense:

	For the year ended December 31,	
(in thousands)	2015	2014
Geologic and field expenses	\$31	\$197
Administrative	58	82
Total exploration expense	\$89	\$279

3. Marketable Equity Securities

Prior to the Transaction, Solitario entered into an agreement with Ely and transferred 15,732,274 shares of Ely common stock it held, in exchange for cancellation of certain payment obligations related to MH-LLC, and in consideration for consent to extend the RMB Loan from August 21, 2015 to September 30, 2015 (the “Ely Consent”). Solitario recorded a loss on sale of marketable equity securities of \$1,510,000 on the transfer of the Ely common stock during 2015.

Solitario holdings in Kinross Gold Corporation (“Kinross”) consisted of the following at December 31, 2015 and 2014:

(in thousands of US Dollars, except share amounts)	December 31,	
	2015	2014

Edgar Filing: SOLITARIO EXPLORATION & ROYALTY CORP. - Form 10-K

Shares	100,000	480,000
Fair value		
Current assets	\$182	\$1,354

Additionally at December 31, 2015, Solitario owned other marketable equity securities carried at their fair value of \$20,000.

Solitario sold the following shares of Kinross during 2015 and 2014:

(in thousands)	Year ended	
	December 31,	
	2015	2014
Shares sold	380	120
Proceeds	\$ 809	\$ 556
Gain on sale	\$ 541	\$ 472

The following tables summarize Solitario's marketable equity securities and accumulated other comprehensive income related to its marketable equity securities:

(in thousands)	December 31,	
	2015	2014
Marketable equity securities at fair value	\$202	\$2,308
Cost	91	1,870
Accumulated other comprehensive income for unrealized holding gains	111	438
Deferred taxes on accumulated other comprehensive income for unrealized holding gains	—	(1,558)
Accumulated other comprehensive income (loss)	\$111	\$(1,120)

Table of Contents 42

The following table represents changes in marketable equity securities:

(in thousands)	Year ended	
	December 31,	
	2015	2014
Gross cash proceeds	\$809	\$556
Cost	1,778	84
Gross (loss) gain on sale included in earnings during the period	(969 )	472
Deferred taxes on gross gain on sale included in earnings	—	—
Reclassification adjustment to unrealized gain (loss) in other comprehensive income for net loss (gain) included in earnings	969	(472 )
Gross unrealized holding loss arising during the period included in other comprehensive loss	(1,296)	(1,108)
Clearing of disproportionate tax effect for deferred taxes on unrealized holding losses included in other comprehensive loss	1,558	—
Net unrealized holding gain (loss)	262	(1,108)
Other comprehensive income (loss) from marketable equity securities	\$1,231	\$(1,580)

#### 4. Other Assets:

The following items comprised other assets:

(in thousands)	December	
	31,	
	2015	2014
Furniture and fixtures, net of accumulated depreciation	\$41	\$51
Exploration bonds and other assets	4	4
Deferred offering costs RMB Loan	—	126
Total other assets	\$45	\$181

In connection with the RMB Loan, Solitario recorded deferred offering costs that were amortized on a straight-line basis to interest cost over 36 months, the term of the Facility Agreement. See Note 5, "Short-term Debt," below.

#### 5. Short-term Debt:

*RMB Facility Agreement*

On August 10, 2012, Solitario entered into the Facility Agreement and had borrowed \$5,000,000 from RMBAH as of the date of the Transaction. In connection with the Facility Agreement, Solitario recorded a warrant discount related to the RMB Warrants. Solitario also recorded deferred offering costs related to the RMB Loan. The warrant discount and deferred offering costs were amortized on a straight-line basis to interest cost over 36 months, the term of the Facility Agreement. 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.

On August 5, 2015, Solitario entered into the RMB Loan Extension to extend the maturity date of the RMB Loan from August 21, 2015 to September 30, 2015. In consideration for entering into the RMB Loan Extension, Solitario paid RMBAH an extension fee of \$50,000 and agreed to extend the terms of the RMB Warrants from August 21, 2015 to August 21, 2016. Concurrent with the closing of the Transaction, Solitario paid RMBAH \$5,000,000 plus \$7,000 of interest and fees in full payment of the RMB Loan and all obligations due under the Facility Agreement. Upon payment the RMB Loan was terminated and may not be drawn in the future. Solitario had no balance due on the RMB Loan as of December 31, 2015.

Table of Contents 43

The following table summarizes the RMB Loan:

(in thousands)	RMB Loan borrowing	RMB Warrant discount	RMB Short-term debt
Balance December 31, 2013	\$ 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
Amortization of discount to interest cost	—	139	139
Repayment of RMB Loan	(5,000 )	—	(5,000 )
Ending balance December 31, 2015	\$ —	\$ —	\$ —

#### UBS short-term credit line

During 2014 Solitario had a secured credit line agreement with UBS Bank, USA (“UBS”), which was secured by Solitario’s assets held in its UBS brokerage account. The UBS secured line of credit of \$802,000 was paid off during 2014.

Solitario recorded the following interest cost related to outstanding short-term debt:

(in thousands)	Year ended December 31,	
	2015	2014
Interest paid in cash	\$228	\$217
Amortization of the RMB Warrants discount	139	217
Amortization of RMB deferred financing costs	126	195
Total interest expense related to the RMB Loan	493	629
UBS secured credit line	—	4
	\$493	\$633

Solitario capitalized all of its interest incurred during 2015 and 2014 to mineral property. See Note 2, “Mineral Properties,” above.

#### 6. Income Taxes:

Solitario's income tax expense from continuing operations consists of the following as allocated between foreign and United States components:

(in thousands)	2015	2014
Current:		
Federal	\$—	\$—
State	—	—
Foreign	—	—
Deferred:		
Federal	662	—
State	(102)	—
Foreign	—	—
Income tax expense	\$560	\$—

Income tax expense is included in the financial statements as follows:

(in thousands)	2015	2014
Continuing Operations	\$560	\$—
Discontinued Operations	998	—
Other Comprehensive Income	(1,558)	—
Total Income tax expense	\$—	\$—

Consolidated loss before income taxes includes losses from foreign operations of \$98,000 and \$262,000 in 2015 and 2014, respectively.

Table of Contents 44

As discussed in Note 1, “Business and Summary of Significant Accounting Policies,” the Transaction resulted in a \$13,307,000 before tax gain reported in discontinued operations. Solitario recorded \$998,000 of tax expense in discontinued

operations which was net of \$3,930,000 tax benefit for the release of valuation allowance. Income taxes have been allocated between discontinued operations and continuing operations in accordance with ASC No. 740 “Income Taxes” (“ASC 740”).

See Note 3, “Marketable Equity Securities,” for detail of the deferred taxes associated with the sale of marketable equity securities and the deferred taxes associated with unrealized gains and losses associated with other comprehensive income related to marketable equity securities.

The net deferred tax assets/liabilities in the December 31, 2015 and 2014 consolidated balance sheets include the following components:

(in thousands)	2015	2014
Deferred tax assets:		
Loss carryovers	\$6,982	\$11,168
Deferred gain	—	2,376
Stock option compensation expense	7	350
Royalty	1,482	1,387
Unrealized loss on derivative securities	38	—
Earnings in unconsolidated subsidiary	—	865
Other	105	105
Valuation allowance	(8,571)	(12,431)
Total deferred tax assets	43	3,820
Deferred tax liabilities:		
Unrealized gain on derivative securities	—	238
MH-LLC investment	—	2,305
Exploration costs	—	845
Unrealized gains on marketable equity securities	41	152
Capitalized interest	—	277
Other	2	3
Total deferred tax liabilities	43	3,820
Net deferred tax liabilities	\$—	\$—

A reconciliation of expected federal income taxes on income (loss) from continuing operations at statutory rates, with the expense for income taxes is as follows:

Edgar Filing: SOLITARIO EXPLORATION & ROYALTY CORP. - Form 10-K

(in thousands)	2015	2014
Expected income tax benefit	\$(976 )	\$(627)
Reversal of disproportionate tax effect in other comprehensive income	1,558	—
Equity based compensation	575	850
Foreign tax rate differences	3	(101)
State income tax	(606 )	(146)
True-up of deferred taxes	267	—
Tax attributes of disposed subsidiary	3,941	—
Previously unrecognized basis in disposed subsidiary	(4,170)	—
Change in valuation allowance	(40 )	(5 )
MH-LLC investment	1	3
Permanent differences and other	7	26
Income tax expense	\$560	\$—

During 2015, the valuation allowance was decreased primarily due to the utilization of loss carryforwards for which no tax benefit was previously realized. During 2014, the valuation allowance was increased primarily as a result of increases in Solitario foreign net operating loss carryforwards, for which it was more likely than not that the deferred tax benefit would not be realized, as well as a decrease in unrealized gains available to offset the future reversal of deferred tax assets.

Table of Contents 45

During 2015 and 2014, other comprehensive income/(loss) was recognized in the amounts of approximately (\$327,000) and (\$1,580,000), respectively. In 2015 and 2014, no tax benefit was recorded in other comprehensive income/(loss) as a \$111,000 and \$535,000 valuation allowance fully offset the attendant tax benefit.

At December 31, 2015, Solitario has unused US Federal Net Operating Loss ("NOL") carryovers of \$58,000 and unused US State NOL carryovers of \$1,601,000 which expire in 2034. Solitario has unused Capital Loss carryovers of \$5,902,000 for US Federal and US State purposes which begin expiring in 2019. Solitario has foreign loss carryforwards for which Solitario has provided a full valuation allowance and which expire over various periods from five years to no expiration depending on the foreign jurisdiction.

Solitario adopted the provisions ASC 740, which prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC 740 requires that Solitario recognize in its consolidated financial statements, only those tax positions that are "more-likely-than-not" of being sustained as of the adoption date, based on the technical merits of the position. As a result of the implementation of ASC 740, Solitario performed a comprehensive review of its material tax positions in accordance with recognition and measurement standards established by ASC 740. The provisions of ASC 740 had no effect on Solitario's financial position, cash flows or results of operations at December 31, 2015 or December 31, 2014, or for the years then ended as Solitario had no unrecognized tax benefits.

Solitario and its subsidiaries are subject to the following material taxing jurisdictions: United States Federal, State of Colorado, Mexico and Peru. Solitario's policy is to recognize interest and penalties related to uncertain tax benefits in income tax expense. Solitario has no accrued interest or penalties related to uncertain tax positions as of December 31, 2015, or December 31, 2014 or for the years then ended.

## 7. Derivative Instruments:

### *RMB warrants*

The RMB Warrants entitle the holder to purchase one share of Solitario common stock pursuant to the terms and conditions of the RMB Warrants. As amended, the RMB Warrants expire on August 21, 2016, and have an exercise price of \$1.5387 per share, subject to customary anti-dilution adjustments. Solitario recorded a warrant discount at the time it entered into the Facility Agreement, which it amortized on a straight-line basis. See Note 5, "Short-term debt," above.

Solitario has recorded a liability as of December 31, 2015 and 2014 of \$4,000 and \$55,000, respectively, for the fair value of the RMB Warrants based upon a Black-Scholes model. Solitario adjusts the fair value of the warrants at each balance sheet date, with changes in value recorded in other income (loss) in the statement of operations. Solitario recorded a gain of \$51,000 and \$85,000, respectively, on the RMB Warrants during the year ended December 31, 2015 and 2014.

*Covered call options*

From time to time Solitario has sold covered call options against its holdings of Kinross. The business purpose of selling covered calls is to provide additional income on a limited portion of shares of Kinross that Solitario may sell in the near term, which is generally defined as less than one year. Solitario has not designated its covered calls as hedging instruments as described in ASC 815, "Derivatives and Hedging," and any changes in the fair value of its covered calls are recognized in the statement of operations in the period of the change. As of December 31 2015 and 2014, all of the covered calls had expired unexercised and there were no liabilities related to those calls entered during each of the years.

Solitario recorded the following gain on derivative instruments related to Kinross calls:

(in thousands)	Year ended	
	December 31, 2015	December 31, 2014
Gain on derivative instruments	\$84	\$ 39

Table of Contents 46

The following table provides the location and amount of the fair values of Solitario's derivative instruments presented in the consolidated balance sheet as of December 31, 2015 and 2014:

(in thousands)	Derivatives Balance Sheet Location	December 31, 2015	December 31, 2014
Derivatives not designated as hedging instruments under ASC 815			
RMB warrants	Other current liabilities	\$ 4	\$55
Kinross calls	Other current liabilities	\$ -	\$ -

#### 8. Fair Value of Financial Instruments:

For certain of Solitario's financial instruments, including cash and cash equivalents, payables and short-term debt, the carrying amounts approximate fair value due to their short maturities. Solitario's marketable equity securities, including its investment in shares of Kinross common stock and TNR Gold equity investments are carried at their estimated fair value primarily based on publicly available quoted market prices.

Solitario applies ASC 820, "Fair Value Measurements." ASC 820 establishes a framework for measuring fair value and requires enhanced disclosures about fair value measurements. ASC 820 clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. ASC 820 also requires disclosure about how fair value is determined for assets and liabilities and establishes a hierarchy for which these assets and liabilities must be grouped, based on significant levels of inputs as follows:

**Level 1:** Quoted prices in active markets for identical assets or liabilities;

**Level 2:** Quoted prices in active markets for similar assets and liabilities and inputs that are observable for the asset or liability; or

**Level 3:** Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The determination of where assets and liabilities fall within this hierarchy is based upon the lowest level of input that is significant to the fair value measurement. During the years ended December 31, 2015 and 2014, there were no reclassifications in financial assets or liabilities between Level 1, 2 or 3 categories.

Edgar Filing: SOLITARIO EXPLORATION & ROYALTY CORP. - Form 10-K

The following is a listing of Solitario's financial assets and liabilities required to be measured at fair value on a recurring basis and where they are classified within the hierarchy as of December 31, 2015:

(in thousands)	Level 1	Level 2	Level 3	Total
Assets				
Marketable equity securities	\$202	\$ —	\$ —	\$202
Liabilities				
RMB warrants	—	4	—	4

The following is a listing of Solitario's financial assets and liabilities required to be measured at fair value on a recurring basis and where they are classified within the hierarchy as of December 31, 2014:

(in thousands)	Level 1	Level 2	Level 3	Total
Assets				
Marketable equity securities	\$2,308	\$ —	\$ —	\$2,308
Liabilities				
RMB warrants	—	55	—	55

*Items measured at fair value on a recurring basis:*

**Marketable equity securities:** At December 31, 2015 and 2014, the fair value of Solitario's holdings in shares of Kinross, TNR and Ely marketable equity securities is based upon quoted market prices.

**RMB Warrants:** The RMB Warrants are not traded on any public exchange. Solitario determines the fair value of the RMB Warrants using a Black-Scholes pricing model, using inputs, including share price, volatility of Solitario common stock and discount rates that include an assessment of performance risk, that are readily available from public markets; therefore, they are classified as Level 2 inputs as of December 31, 2015 and 2014.

During the year ended December 31, 2015, Solitario did not change any of the valuation techniques used to measure its financial assets and liabilities at fair value.

Table of Contents 47

9. Commitments and Contingencies:

In acquiring its interests in mineral claims and leases, Solitario has entered into lease agreements, which may be canceled at its option without penalty. Solitario is required to make minimum rental and option payments in order to maintain its interests in certain claims and leases. See Note 2, "Mineral Properties," above. Solitario estimates its 2016 property rentals and option payments, excluding certain earn-in payments discussed below, for properties we own or operate to be approximately \$341,000. Assuming that our joint ventures continue in their current status and that we do not appreciably change our property positions on existing properties, approximately \$327,000 of these annual payments are paid or are reimbursable to us by our joint venture partners. In addition, we may be required to make further payments in the future if we elect to exercise our options under those agreements or if we enter into new agreements.

Solitario leases office space under a non-cancelable operating lease for the Wheat Ridge, Colorado office which provides for total minimum annual rent payments of \$33,000 through October of 2018.

10. Employee Stock Compensation Plans:

a.) The 2006 Plan

On June 27, 2006, Solitario's shareholders approved the 2006 Stock Option Incentive Plan (the "2006 Plan"). Under the terms of the 2006 Plan, the Board of Directors reserved a total of 2,800,000 shares of Solitario common stock for the potential awards to Directors, officers and employees with exercise prices equal to the market price of Solitario's common stock at the date of grant. Solitario classifies its stock options under the 2006 Plan as equity options in accordance with the provisions of ASC 718, "Compensation – Stock Compensation."

b.) 2006 Plan stock option compensation

Solitario's outstanding options from the 2006 Plan on the date of grant have a five-year term, and vest 25% on date of grant and 25% on each of the next three anniversary dates. Solitario recognizes 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 unvested grant date fair value of each of its outstanding options. The following table shows the grant date fair value of Solitario's only option grant during either 2015 or 2014 from the 2006 Plan as of the date of grant.

Grant date fair value

Grant Date	8/15/14	
Option – grant date price (Cdn\$)	\$ 1.60	
Options granted	1,990,000	
Expected life years	5.0	
Expected volatility	66	%
Risk free interest rate	1.6	%
Weighted average fair value	\$0.81	
Grant date fair value	\$1,618,000	

Solitario recorded \$396,000 and \$591,000, respectively, of stock option expense from the 2006 Plan during 2015 and 2014 included in general and administrative expense, for the amortization of grant date fair value with a credit to additional paid-in capital.

c.) 2006 Plan stock option activity

Table of Contents 48

During 2015 and 2014 there were no shares issued from the exercise of options. The following table summarizes the activity for stock options outstanding under the 2006 Plan as of December 31, 2015 and 2014:

	2015			2014		
	Options	Weighted Average Exercise Price (Cdn\$)	Aggregate Intrinsic Value(1)	Options	Weighted Average Exercise Price (Cdn\$)	Aggregate Intrinsic Value(1)
2006 Plan						
Outstanding, beginning of year	2,348,000	\$ 1.66		2,419,000	\$ 2.22	
Granted	—	—		1,990,000	1.60	
Exercised	—	—		—	—	
Cancelled/expired (2)(3)	(2,188,000)	1.66		(2,061,000)	2.31	
Forfeited	(120,000 )	1.60		—	—	
Outstanding, end of year	40,000	\$ 1.60	\$ —	2,348,000	\$ 1.66	\$ —
Exercisable, end of year	20,000	\$ 1.60	\$ —	814,250	\$ 1.78	\$ —

(1)The intrinsic value at December 31, 2015 and 2014 based upon the quoted market price of Cdn\$0.70 and Cdn\$1.05, respectively, per share for our common stock on the TSX and an exchange ratio of 0.72120 and 0.85993, respectively, United States dollars per Canadian dollar.

(2)On November 24, 2015, holders of option awards from the 2006 Plan voluntarily cancelled awards for 160,000 options with an option price of Cdn\$1.49 with an expiration date of December 16, 2017 and 1,830,000 options with an option price of Cdn\$1.60 with an expiration date of August 14, 2019 to allow Solitario to have additional financial flexibility. No consideration was given or received by the holders of the options to cancel the awards.

(3)On January 28, 2014, holders of option awards from the 2006 Plan voluntarily cancelled awards for 1,797,000 options with an option price of Cdn\$2.40 with 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.

#### d.) The 2013 Plan

On June 18, 2013, Solitario's shareholders approved the 2013 Solitario Exploration and Royalty Corp. Omnibus Stock and Incentive Plan (the "2013 Plan"). Under the terms of the 2013 Plan, a total of 1,750,000 shares of Solitario common stock are reserved for awards to Directors, officers, employees and consultants. Such awards may take the form of stock options, stock appreciation rights, restricted stock, and restricted stock units. The terms and conditions of the awards are pursuant to the 2013 Plan and are granted by the Board of Directors or a committee appointed by the Board of Directors. Solitario classifies its awards from the 2013 Plan as equity awards under the provisions of ASC 718, "Compensation – Stock Compensation."

## e.) Stock option compensation

Solitario made no grants of options during 2015 or 2014 from the 2013 Plan. Grants from the 2013 Plan have a five-year term, and vest 25% on date of grant and 25% on each of the next three anniversary dates. Solitario recognizes 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 unvested grant date fair value of each of its outstanding options.

Solitario recorded \$170,000 and \$188,000 of stock option expense from the 2013 Plan during 2015 and 2014, respectively, included in general and administrative expense, for the amortization of grant date fair value with a credit to additional paid-in capital.

## f.) Stock option activity

During 2015 and 2014 no options granted from the 2013 Plan were exercised. During 2014 Solitario issued restricted stock units (“RSUs”) 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. Solitario recorded a credit to additional paid-in-capital of \$45,000 on the date of issuance of the shares from the 2013 Plan. The following table summarizes the activity for stock options and RSUs outstanding under the 2013 Plan as of December 31, 2015 and 2014:

	2015			2014		
	RSUs/ Options	Weighted Average Exercise Price	Aggregate Intrinsic Value(1)	Options	Weighted Average Exercise Price	Aggregate Intrinsic Value(1)
2013 Plan						
Outstanding, beginning of year	1,400,000	\$ 0.96		1,400,000	\$ 0.96	
Granted	—	—		50,562	0.89	
Exercised	—	—		(50,562 )	0.89	
Cancelled (2)	(1,250,000)	0.94		—	—	
Forfeited	(150,000 )	1.10		—	—	
Outstanding, end of year	—	—	\$ —	1,400,000	\$ 0.96	\$ —
Exercisable, end of year	—	—	\$ —	700,000	\$ 0.96	\$ —

(1)The intrinsic value at December 31, 2015 and 2014 based upon the quoted market price of \$0.49 per share and \$0.92 per share, respectively, for our common stock on the NYSE-MKT.

(2)On November 24, 2015, holders of option awards from the 2006 Plan voluntarily cancelled awards for 1,250,000 options with an option price of \$0.94 with an expiration date of October 21, 2018 to allow Solitario to have additional financial flexibility. No consideration was given or received by the holders of the options to cancel the awards.

## 11. Segment Reporting

As a result of the Transaction, Solitario operates in one segment, mineral exploration. The assets and liabilities as of December 31, 2014 related to MH-LLC and sold in the Transaction are shown as discontinued operations as detailed above under “Recent Developments” in Note 1, “Business and Summary of Significant Accounting Policies.”

Table of Contents 50

**Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None

**Item 9A. Controls and Procedures**

The management of Solitario is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). During the fiscal period covered by this report, Solitario's management, with the participation of the Chief Executive Officer and Chief Financial Officer, carried out an evaluation of the effectiveness of Solitario’s internal control over financial reporting and the design and operation of Solitario’s disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act). This evaluation of the effectiveness of our internal control over financial reporting was based on the framework and criteria established in *Internal Control – Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on such evaluations, Solitario’s Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2015, Solitario’s internal control over financial reporting is effective and that its disclosure controls and procedures are effective to ensure that information required to be disclosed by Solitario in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the required time periods and are designed to ensure that information required to be disclosed in its reports is accumulated and communicated to Solitario’s management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. There were no changes in internal control over financial reporting during the three months ended December 31, 2015.

This annual report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. As a smaller reporting company, Solitario’s management’s report was not subject to attestation by our independent registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permit us to provide only management’s report in this annual report.

**Item 9B. Other Information**

None

Table of Contents 51

PART III

**Item 10. Directors, Executive Officers and Corporate Governance**

The information required under Item 10 is incorporated herein by reference to the information set forth in our definitive proxy statement in connection with the annual meeting of shareholders to be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2015 pursuant to Section 14(a) of the Exchange Act (the "2016 Proxy").

Item 11. Executive Compensation

The information required under Item 11 is incorporated herein by reference to the information set forth in the 2016 Proxy.

**Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**

The information with respect to Item 12 is incorporated herein by reference to the information set forth in the 2016 Proxy.

**Item 13. Certain Relationships and Related Transactions, and Director Independence**

The information with respect to Item 13 is incorporated herein by reference to the information set forth in the 2016 Proxy.

Item 14. Principal Accounting Fees and Services

The information required under Item 14 is incorporated herein by reference to the information set forth in the 2016 Proxy.

Table of Contents 52

## **PART IV**

### **Item 15. Exhibits, Financial Statement Schedules**

The following documents are filed as a part of this Annual Report on Form 10-K:

#### 1. Financial Statements

The following financial statements contained in Part II, Item 8 are filed as part of this Annual Report on Form 10-K:

Consolidated Financial Statements  
Report of Independent Registered Public Accounting Firm  
Consolidated Balance Sheets as of December 31, 2015 and 2014  
Consolidated Statements of Operations for the years ended December 31, 2015 and 2014  
Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2015 and 2014  
Consolidated Statements of Shareholders' Equity for the years ended December 31, 2015 and 2014  
Consolidated Statements of Cash Flows for the years ended December 31, 2015 and 2014  
Notes to Consolidated Financial Statements

#### 2. Financial Statement Schedules

Financial statement schedules are omitted because they are not required or are not applicable, or the required information is provided in the consolidated financial statements or notes thereto described in Item 15(1) above.

#### 3. Exhibits

The Exhibits listed in the Index to Exhibits, which appears immediately following the signature page and is incorporated herein by reference, are filed as part of this Annual Report on Form 10-K.

Table of Contents 53

**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SOLITARIO EXPLORATION  
& ROYALTY CORP.

By: /s/ James R. Maronick  
Chief Financial Officer

Date: March 3, 2016

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
<u>/s/</u> Christopher E. Herald, Chief Executive Officer	Principal Executive Officer and Director	<u>March 3, 2016</u>
<u>/s/</u> James R. Maronick, Chief Financial Officer	Principal Financial and Accounting Officer	<u>March 3, 2016</u>
<u>/s/</u> Mark E. Jones, III	   A majority of	
<u>/s/</u> Brian Labadie	the Board of   Directors	<u>March 3, 2016</u>
<u>/s/</u> Leonard Harris	 	
<u>/s/</u>		

John Hainey

|  
|  
|  
|

By: /s/

James R. Maronick,  
Attorney-in-fact

Table of Contents 54

INDEX TO EXHIBITS

Description

- 3.1 Amended and Restated Articles of Incorporation of Solitario Exploration & Royalty Corp., as Amended (incorporated by reference to Exhibit 3.1 to Solitario's Form 10-Q filed on August 10, 2010)
- 3.2 Amended and Restated By-laws of Solitario Exploration & Royalty Corp. (incorporated by reference to Exhibit 99.1 to Solitario's Form 8-K filed on March 22, 2013)
- 4.1 Form of Common Stock Certificate of Solitario Exploration & Royalty Corp. (incorporated by reference to Exhibit 4.1

to Solitario's  
Form 10-Q  
filed on  
August 7,  
2008)

4.2 Form of  
Warrant  
Certificate of  
Solitario  
Exploration &  
Royalty Corp.  
(incorporated  
by reference  
to Exhibit  
99.2 to  
Solitario's  
Form 8-K  
filed on  
August 16,  
2012)

10.1 Membership  
Interest  
Purchase  
Agreement  
between  
Solitario  
Exploration &  
Royalty  
Corp., Ely  
Gold &  
Minerals,  
Inc., DHI  
Minerals  
(U.S.) Ltd.,  
and Waterton  
Nevada  
Splitter LLC  
dated June 10,  
2015  
(incorporated  
by reference  
to Exhibit  
10.1 to  
Solitario's  
Form 8-K  
filed on June  
12, 2015)

10.2

Waterton  
Commitment  
Letter  
Agreement  
between  
Solitario  
Exploration &  
Royalty Corp.  
and Waterton  
Precious  
Metals Fund  
II Cayman,  
LP dated June  
10, 2015  
(incorporated  
by reference  
to Exhibit  
10.2 to  
Solitario's  
Form 8-K  
filed on June  
12, 2015)

10.3 Consent and  
Waiver  
between  
Solitario  
Exploration &  
Royalty  
Corp., Ely  
Gold &  
Minerals,  
Inc., and DHI  
Minerals  
(U.S.) Ltd.  
dated June 10,  
2015  
(incorporated  
by reference  
to Exhibit  
10.3 to  
Solitario's  
Form 8-K  
filed on June  
12, 2015)

10.4 Warrant  
Amendment  
between  
Solitario  
Exploration &  
Royalty Corp.

and RMB  
Australia  
Holdings  
Limited dated  
August 5,  
2015  
(incorporated  
by reference  
to Exhibit  
99.1 to  
Solitario's  
Form 8-K  
filed on  
August 10,  
2015)

10.5 2013 Solitario  
Exploration &  
Royalty Corp.  
Omnibus  
Stock and  
Incentive Plan  
(incorporated  
by reference  
to Exhibit  
10.2 to  
Solitario's  
Form 8-K  
filed on June  
20, 2013)

10.6 Solitario  
Resources  
Corporation  
2006 Stock  
Option  
Incentive Plan  
(As  
Amended), an  
amendment of  
the Solitario  
Resources  
Corporation  
2006 Stock  
Option  
Incentive Plan  
(incorporated  
by reference  
to Exhibit A  
to Solitario's  
Proxy

Statement  
Pursuant to  
Section 14(a)  
filed on April  
30, 2007)

10.7 Alliance  
Agreement,  
dated January  
18, 2005,  
between  
Solitario  
Resources  
Corporation  
and Newmont  
Overseas  
Exploration  
Limited  
(incorporated  
by reference  
to Exhibit  
99.1 to  
Solitario's  
Form 8-K  
filed on  
January 20,  
2005)

10.8 Amended and  
Restated  
Royalty  
Grant, dated  
January 18,  
2005,  
between  
Solitario  
Resources  
Corporation  
and Minera  
Los Tapados  
S.A.  
(incorporated  
by reference  
to Exhibit  
99.3 to  
Solitario's  
Form 8-K  
filed on  
January 20,  
2005)

10.9 Change in Control Severance Benefits Agreement between Solitario Resources Corporation and Christopher E. Herald, dated as of March 14, 2007 (incorporated by reference to Exhibit 99.1 to Solitario's Form 8-K filed on March 14, 2007)

10.10 Change in Control Severance Benefits Agreement between Solitario Resources Corporation and James R. Maronick, dated as of March 14, 2007 (incorporated by reference to Exhibit 99.2 to Solitario's Form 8-K filed on March 14, 2007)

10.11 Change in Control

Severance  
Benefits  
Agreement  
between  
Solitario  
Resources  
Corporation  
and Walter  
W. Hunt,  
dated as of  
March 14,  
2007  
(incorporated  
by reference  
to Exhibit  
99.3 to  
Solitario's  
Form 8-K  
filed on  
March 14,  
2007)

Table of Contents 55

- 10.12 Framework Agreement for the Exploration and Development of Potential Mining Properties, related to Solitario's 100% owned Bongará project in Peru between Minera Bongará S.A., Minera Solitario Peru S.A.C., Solitario Resources Corporation, and Votorantim Metais – Cajamarquilla S.A., dated March 24, 2007 (incorporated by reference to Exhibit 10.2 to Solitario's Form 8-K filed on October 4, 2007)
- 14.1 Code of Ethics for the Chief Executive Officer and Senior Financial Officer (incorporated by reference to Exhibit 99.1 to Solitario's Form 8-K filed on July 18, 2006)
- 21.1\* Subsidiaries of Solitario Exploration & Royalty Corp.
- 23.1\* Consent of EKS&H LLLP
- 24.1\* Power of Attorney
- 31.1\* Certification of Chief Executive Officer pursuant to SEC Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2\* Certification of Chief Financial Officer pursuant to SEC Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1\* Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

101\* The following financial statements, formatted in XBRL: (i) Consolidated Balance Sheets as of December 31, 2015 and 2014; (ii) Consolidated Statements of Operations for the years ended December 31, 2015 and 2014; (iii) Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2015 and 2014; (iv) Consolidated Statements of Shareholders' Equity for the years ended December 31, 2015 and 2014; (v) Consolidated Statements of Cash Flows for the years ended December 31, 2015 and 2014; and (vi) Notes to the Consolidated Financial Statements.

\* Filed herewith