

SECURITIES AND EXCHANGE COMMISSION

FORM 6-K

Current report of foreign issuer pursuant to Rules 13a-16 and 15d-16 Amendments

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SIC: **1040** Gold and silver ores

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the month of March 2020

Commission File Number 001-35329

ALIO GOLD INC.

(Translation of registrant's name into English)

700 West Pender Street, Suite 507, Vancouver, British Columbia V6C 1G8

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Signatures

Pursuant to the requirements 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.

ALIO GOLD INC.

Date: March 30, 2020

By: (signed) Mark Backens

Mark Backens

Chief Executive Officer

EXHIBIT INDEX

Exhibits

<u>Number</u>	<u>Description of Exhibit</u>
99.1	Annual Information Form for the year ended December 31, 2019



ANNUAL INFORMATION FORM

Year ended December 31, 2019

March 30, 2020

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Unless otherwise stated or the context requires otherwise, references in this Annual Information Form (“AIF”) to the “Company”, “Alio Gold”, “we”, “us” or “our” refer to Alio Gold Inc. and its subsidiaries on a consolidated basis.

FORWARD-LOOKING STATEMENTS

Certain statements and information contained in this AIF may constitute “forward-looking statements” or “forward-looking information” (collectively, “**forward-looking statements**”) and are made pursuant to the “safe harbor” provisions of the United States Private Securities Litigation Reform Act of 1995 and Canadian securities laws. Forward-looking statements are statements which relate to future events. Such statements include estimates, forecasts and statements with respect to project development risks and estimated future production and cash costs, future trends, plans, strategies, objectives and expectations, including with respect to costs, capital requirements, availability of financing, current and future production, exploration, reserves and resources and projected production at the Company’s San Francisco Property (as defined below) and the Company’s Florida Canyon Mine (as defined below), including estimated internal rate of return and projected production, exploitation activities and potential, future operations, projected operational updates to the Florida Canyon Mine, expectations regarding activities to improve reliability and operating efficiency and reduction of operating and sustaining capital cost requirements at the Florida Canyon Mine, processing, capital spending and the timing of such spending at the Florida Canyon Mine, residual leaching and stockpiling at the San Francisco Property, holding costs at the Ana Paula Project, expectations regarding the outcome of current litigation and expectations regarding the payment of dividends on the Company’s common shares. Information inferred from the interpretation of drilling results and information concerning mineral resource estimates may also be deemed to be forward-looking statements, as they constitute predictions of what might be found to be present when, and if, a project is developed. In some cases, you can identify forward-looking statements by terminology such as “may”, “should”, “expects”, “plans”, “anticipates”, “believes”, “estimates”, “predicts”, “potential”, or “continue” or the negative of these terms or other comparable terminology. All statements and information other than statements of historical fact may be forward-looking statements.

These forward-looking statements are based on a number of material factors and assumptions, including but not limited to: the successful completion of development projects, planned expansions or other projects within the timelines anticipated and at anticipated production levels; the accuracy of reserve and resource, grade, mine life, cash cost, net present value and internal rate of return estimates and other assumptions, projections and estimates made in the technical reports for the San Francisco Property and the Florida Canyon Mine; that mineral resources can be developed as planned; interest and exchange rates; that required financing and permits will be obtained; the favourable resolution of outstanding litigation; general economic conditions; that labor disputes, flooding, ground instability, fire, failure of plant, equipment or processes to operate are as anticipated and other risks of the mining industry will not be encountered; the price of gold, silver and other metals; competitive conditions in the mining industry; title to mineral properties; and changes in laws, rules and regulations applicable to the Company.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements, or industry results, to differ materially from those anticipated in such forward-looking statements. The Company believes the expectations reflected in such forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct and readers are cautioned not to place undue reliance on forward-looking statements due to the inherent uncertainty thereof. Some of the risks and other factors which could cause actual results to differ materially from those expressed in the forward-looking statements contained in this AIF include, but are not limited to: decreases in the price of gold; competition with other companies with greater financial and human resources and technical facilities; risks inherent in litigation, including that such litigation will not be resolved favourably for the Company; risks associated with doing business in Mexico; maintaining compliance with governmental regulations and expenses associated with such compliance; reduction in liquidity and difficulty in obtaining future financing; restrictive covenants in the Company’s credit facilities; ability to hire, train, deploy and manage qualified personnel in a timely manner; ability to obtain or renew required government permits; changes to the taxation laws in the multiple jurisdictions in which the Company operates; failure to discover new reserves, maintain or enhance existing reserves or develop new operations; risks and hazards associated with exploration and mining operations; accessibility and reliability of existing local infrastructure and availability of adequate infrastructures in the future; environmental regulation; land reclamation requirements; ownership of, or control over, the properties on which the Company operates; maintaining existing property rights or obtaining new rights; inherent uncertainties in the process of estimating mineral reserves and resources; reported reserves and

resources may not accurately reflect the economic viability of the Company's properties; uncertainties in estimating future mine production and related costs; shortages, or increases in prices, of energy and other consumables; reliance upon historical data; ability to keep pace with innovations affecting the mining industry; risks associated with expansion and development of mining properties; currency exchange rate fluctuations; maintenance of positive relationships with the communities in which the Company operates; directors' and officers' conflicts of interest; inability to access additional capital; problems integrating new acquisitions and other problems with strategic transactions; uncertainties related to the repatriation of funds from foreign subsidiaries; uncertainties regarding COVID-19; no dividend payments; volatile share price; negative research reports or analyst's downgrades and dilution; and other factors contained in the section entitled "*Risk Factors*" in this AIF.

Although the Company has attempted to identify important factors that could cause actual results or events to differ materially from those described in the forward-looking statements, you are cautioned that this list is not exhaustive and there may be other factors that the Company has not identified. Furthermore, the Company undertakes no obligation to update or revise any forward-looking statements included in this AIF if these beliefs, estimates and opinions or other circumstances should change, except as otherwise required by applicable law.

CAUTIONARY NOTE TO UNITED STATES INVESTORS CONCERNING ESTIMATES OF MINERAL RESERVES AND MINERAL RESOURCES

This annual report has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ in certain material respects from the disclosure requirements promulgated by the Securities and Exchange Commission (the "SEC"). For example, the terms "mineral reserve", "proven mineral reserve", "probable mineral reserve", "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are Canadian mining terms as defined in accordance with Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects and the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM") - CIM Definition Standards on Mineral Resources and Mineral Reserves, adopted by the CIM Council, as amended. These definitions differ from the definitions in the disclosure requirements promulgated by the SEC. Accordingly, information contained in this annual report may not be comparable to similar information made public by U.S. companies reporting pursuant to SEC disclosure requirements.

TECHNICAL DISCLOSURE

Unless otherwise indicated, the Company has prepared the Technical Information in this AIF based on information contained in the technical reports and news releases (collectively, the "**Disclosure Documents**") available under the Company's company profile on SEDAR at www.sedar.com. The Disclosure Documents are each intended to be read as a whole, and sections should not be read or relied upon out of context. The Technical Information is subject to the assumptions and qualifications contained in the Disclosure Documents.

Each of the Company's Disclosure Documents was prepared by or under the supervision of a Qualified Person. Readers are encouraged to review the full text of the Disclosure Documents which qualifies the Technical Information.

Mineral resource estimates contained herein are only estimates and no assurance can be given that any particular level of recovery of minerals will be realized or that an identified resource will ever qualify as a commercially mineable or viable deposit which can be legally and economically exploited. In addition, the grade of mineralization ultimately mined may differ from the one indicated by drilling results and the difference may be material. The estimated resources described herein should not be interpreted as assurances of mine life or of the profitability of future operations. Readers are advised that mineral resources that are not mineral reserves do not have demonstrated economic viability.

CURRENCY AND EXCHANGE RATES

All dollar amounts in this AIF are expressed in United States dollars, unless otherwise indicated. References in this AIF to "dollars" or "\$" are to United States dollars. References in this AIF to "C\$" are to Canadian dollars. The following table sets forth the value of the Canadian dollar expressed in United States dollars on December 31 of each year and the average, high and low exchange rates during the year indicated based on the daily average rate of exchange, as applicable, as reported by the Bank of Canada:

	2019	2018	2017
Average rate for period	0.7537	0.7721	0.7708
Rate at end of period	0.7699	0.7330	0.7971
High for period	0.7699	0.8138	0.8245
Low for period	0.7353	0.7330	0.7276

The daily average rate of exchange on March 27, 2020, as reported by the Bank of Canada for the conversion of Canadian dollars into United States dollars was C\$1.00 equals \$0.7114.

CORPORATE STRUCTURE

Name, Address and Incorporation

The Company was incorporated pursuant to the *Business Corporations Act* (British Columbia) (the “BCBCA”) on March 17, 2005. On May 12, 2017, the Company changed its name from “Timmins Gold Corp.” to “Alio Gold Inc.”

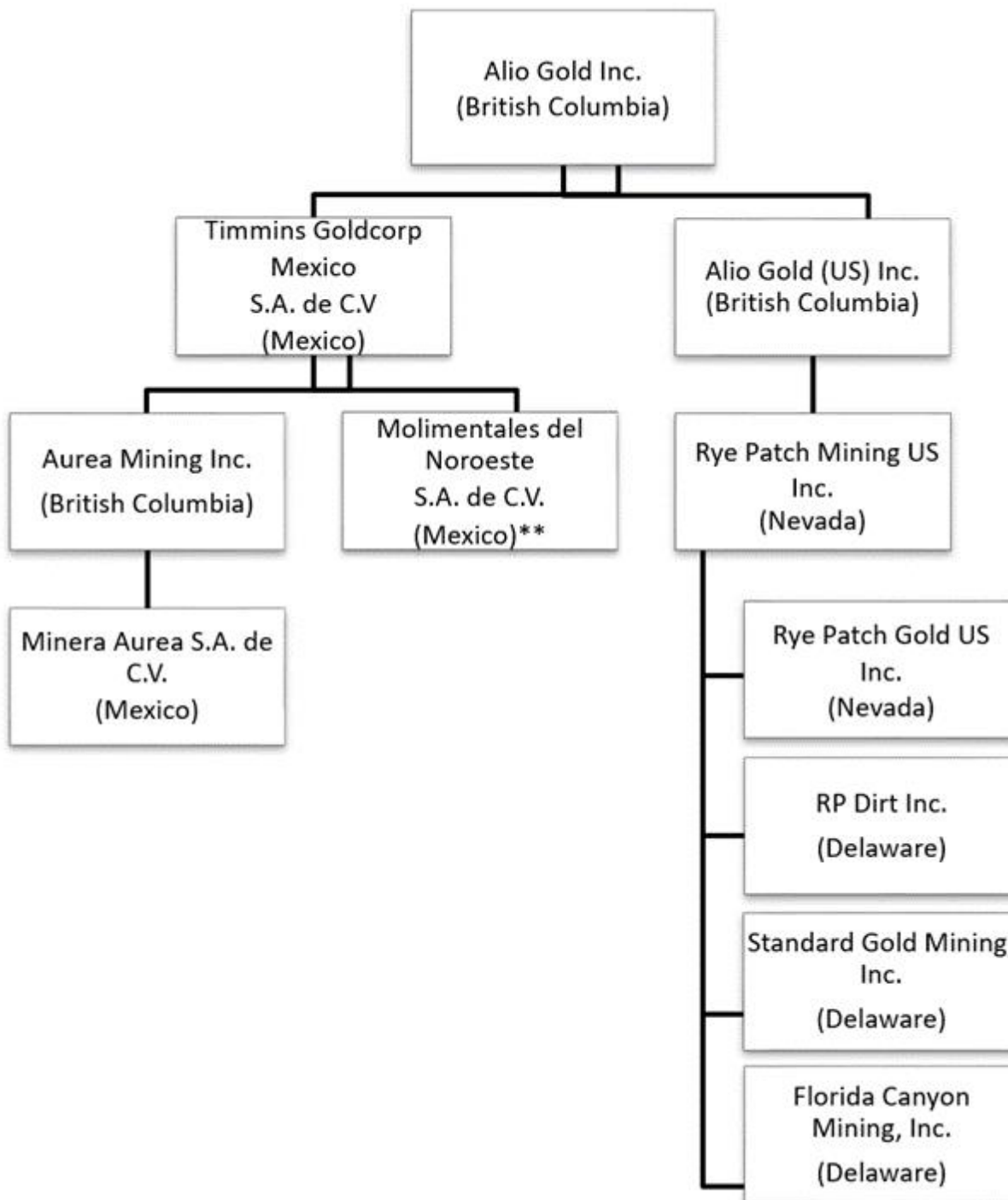
The Company’s head office and registered and records office are located at Suite 507 – 700 West Pender Street, Vancouver, British Columbia, V6C 1G8.

The Company’s subsidiary in the United States maintains an office at Suite 9 – 220 South Rock Boulevard, Reno, Nevada, USA, 89502. The United States subsidiary also maintains a field office at the Florida Canyon Mine (as defined under “*General Development of the Business – Recent Developments - 2019*” below), located at 180 Humboldt, Imlay, Nevada, USA, 89418.

The Company’s subsidiary in Mexico maintains a field office at the Ana Paula Project (as defined under *General Development of the Business – Recent Developments – 2019*” below) near the municipality of Cuetzala del Progreso, Guerrero, Mexico.

Intercorporate Relationships

As at December 31, 2019, the corporate structure of the Company is as follows:*



Notes:

*All subsidiaries are 100% owned, except that, as at December 31, 2019, 0.01% of the issued and outstanding share capital of Timmins Goldcorp Mexico S.A. de C.V. was owned by Mark Backens, 0.01% of the issued and outstanding share capital of Aurea Mining Inc. was owned by Alio Gold Inc., 0.01% of the issued and outstanding share capital of Molimentales del Noroeste S.A. de C.V. was owned by Arturo Bonillas and 0.01% of the issued and outstanding share capital of Minera Aurea S.A. de C.V. was owned by Molimentales del Noroeste, S.A. de C.V.

On March 5, 2020, Magna Gold Corp. (“Magna**”) agreed to purchase from Timmins Goldcorp S.A. de C.V. (“Timmins”) all of the shares of Molimentales del Noroeste S.A. de C.V. held by Timmins. Upon closing Timmins will receive 9,740,000 shares of Magna. \$5 million in cash is to be received by Timmins within 12 months of the closing.

GENERAL DEVELOPMENT OF THE BUSINESS

Three Year History

Recent Developments

On March 30, 2020 the Company announced that it had entered into a definitive agreement for an at-market merger (the “**Arrangement Agreement**”) with Argonaut Gold Inc. (“**Argonaut**”) whereby Argonaut will acquire all of the issued and outstanding shares of Alio Gold (the “**Transaction**”). Under the terms of the Arrangement Agreement, all of the Company’s issued and outstanding common shares will be exchanged on the basis of 0.67 of an Argonaut common share for each Alio Gold common share (the “**Exchange Ratio**”).

The Arrangement Agreement has been approved by the boards of directors of Argonaut and Alio Gold, and each board recommends that their respective shareholders vote in favor of the Transaction. Alio Gold will be entitled to nominate two directors to the Argonaut board upon closing.

The proposed business combination will be affected by way of a Plan of Arrangement completed under British Columbia law. The Transaction will require approval by 66 2/3 percent of the votes cast by the shareholders of Alio Gold at a special meeting of Alio Gold shareholders. The issuance of Argonaut common shares in connection with the Transaction will require the approval of a simple majority of the shareholders of Argonaut voting at a special meeting. Officers and directors of Alio Gold and Argonaut have entered into voting support agreements, pursuant to which they will vote their common shares held in favour of the Transaction. In addition to shareholder approvals, the Transaction is subject to the receipt of certain regulatory, court and stock exchange approvals and the satisfaction of certain other closing conditions customary in transactions of this nature. The Transaction is also subject to the closing of Alio Gold’s sale of the shares of Molimentales del Noroeste S.A. de C.V to Magna announced on March 6, 2020.

The Arrangement Agreement includes customary provisions including non-solicitation provisions, a right to match any superior proposal and a US\$2.0 million termination fee payable to Argonaut under certain circumstances. Details of the proposed arrangement and a description of the resulting company will be set out in an Information Circular mailed to all shareholders in connection with the meeting.

On March 6, 2020, the Company agreed to sell Molimentales del Noroeste, S.A. de C.V., which owns a 100% interest in the San Francisco Property (as defined under *General Development of the Business – Recent Developments – 2019*” below) to Magna. Upon closing, the Company will receive 9,740,000 shares of Magna representing approximately 9.9% of the issued and outstanding shares of Magna and will receive an additional \$5 million in cash or in certain circumstances a 1% net smelter royalty within 12 months of the closing.

2019

Florida Canyon Mine

In early 2019 the Company reported the results of an updated life of mine plan for its 100% owned Florida Canyon mine located in Pershing County, Nevada (the “**Florida Canyon Mine**”) and the subsequent filing of an associated NI 43-101 compliant technical report. See “*Mineral Properties – Florida Canyon Gold Mine*” below.

In May 2019, the Company announced that the Mine Safety and Health Administration completed a routine inspection at the Florida Canyon Mine. As a result of the inspection, a portion of the mining fleet was taken out of service to address deficiencies with respect to fluid leaks present on the equipment. The Company voluntarily removed the majority of the fleet from service to address similar issues and ensure a safe working operating standard on all equipment. Mine production continued to be negatively affected as a result of the mechanical downtime. Crushing activity was also negatively affected resulting in a reduction of the ore tones processed. As at May 7, 2019, Florida Canyon Mine continued to experience low availability of mining equipment and production was negatively impacted.

In October 2019, the Company announced the signing of a lease agreement for the acquisition of new loading and hauling equipment. The fleet consists of 13 90-tonne haul trucks and three matched front-end loaders. A maintenance and service agreement was also signed that provides guaranteed mechanical availability of the new fleet and

encompasses all required maintenance activities over the life of the lease. The lease agreement and maintenance agreement are for an approximate five-year term, depending on the actual hours of operation, after which the equipment can be purchased for approximately \$2 million. The Company's existing fleet was retired as the new fleet became operational.

In addition, in 2019, Florida Canyon Mine received all required permits to initiate construction of the second heap leach pad. Contractor mobilization commenced during Q4 of 2019 and long lead-time items were ordered. Construction is expected to take approximately six months and could be completed in stages to facilitate early placement and leaching of ore.

In 2019, the Company also announced that it plans to investigate the potential for producing a gold-bearing sulphide concentrate suitable for treatment at other Nevada gold facilities.

San Francisco Property

The San Francisco pit at the Company's 100% owned San Francisco property in Sonora Mexico (the "**San Francisco Property**") did not meet planned ore production rates at an acceptable strip ratio in the upper levels of the planned pit laybacks. As a result, in January 2019, the Company made the decision to stop active mining in the San Francisco pit and to only process low grade stockpile material through the crusher. A number of mine planning options were investigated and while the options were economic, the Company did not have the ability to fund the capital required for the various options. Stockpiles were sufficient to operate at this capacity throughout 2019. Following the depletion of the stockpiles the operation went into residual leach after December 31, 2019.

Ana Paula Project

The Company's Ana Paula development property located in Guerrero, Mexico (the "**Ana Paula Project**") remained on care and maintenance, where it was placed in August 2018 to allow the Company to focus efforts and capital on other projects.

Loan Facility with Sprott Private Resource Lending II (Collector), LP

In November 2019, the Company signed and closed a three-year, \$15 million loan facility (the "**Facility**") with Sprott Private Resource Lending II (Collector), LP ("**Sprott**") to fund construction of the new Phase II leach pad at the Florida Canyon Mine. The principal amount of the Facility is \$15 million, maturing on October 31, 2022. Interest on the Facility is 8% plus the greater of LIBOR and 2%. The Facility amortizes in eight equal quarterly payments commencing January 31, 2021. In conjunction with closing, the Company issued 1,286,228 common shares to Sprott. Such shares were subject to a hold period under applicable securities legislation of four months and one day from their date of issue.

Board and Management Changes

During 2019, David Whittle joined the Company's board of directors and Bryan Coates, Jose Vizquerra, Tim Baker and Greg McCunn resigned as board members. Mr. McCunn also resigned as the Company's Chief Executive Officer. Jason Gregg, Colette Rustad, Paul Hosford and Doug Jones resigned from their offices during 2019. Markus Felderer was appointed and resigned as the Company's Vice President Corporate Development during the year. Ian Harcus was promoted to Vice President of Finance and Miguel Bonilla was promoted to the Company's Country Manager, Mexico. Paul Jones joined the Company as Senior Vice President Corporate Development in October 2019.

2018

San Francisco Property

At the San Francisco Property, a strategy which was implemented in December 2017 which involved trucking lower grade run-of-mine ore to old heap leach pads while higher cut-off grade material was fed to the crusher, continued throughout most of 2018. However, the dual cut-off strategy was not successful in increasing the grade of the ore to the crusher as was anticipated by the Company and was discontinued in September 2018.

On August 10, 2018, the Mineral Reserve Estimate for the San Francisco Property was updated and showed proven and probable mineral reserves of 854,472 ounces of gold (55.5 million tonnes at 0.49 g/t gold) as of July 1, 2018. For further information please see the news release disseminated by the Company on August 10, 2018 entitled “*Alio Gold Reports Second Quarter 2018 Results*” and available on SEDAR (www.sedar.com), which was reviewed and approved by Jorge Lozano, a “qualified person” as defined by NI 43-101. None of the other Qualified Persons referred to in this AIF have reviewed or approved of this update or news release or the related Technical Information.

A full technical review of the mining operations commenced in September 2018 that led in January 2019, to the decision to stop active mining in the San Francisco pit.

Ana Paula Project

In early 2018, the Company announced that it continued to advance its exploration and development program at its Ana Paula Project in Guerrero, Mexico. The 3,800 metre surface diamond drill program was initiated in January 2018 and completed in May 2018. In addition to the exploration drilling program, the Company continued to advance its regional exploration program in the area, carrying out surface exploration work on the 56,000-hectare land package. Support infrastructure construction was completed at the Ana Paula Project in 2018 including: a 100-person camp site, a power line connecting the camp and the mine portal area to the power grid and a communications tower providing cellular and internet services to the site. On August 20, 2018, the Company announced the temporary suspension of exploration and development work at its Ana Paula Project and a commitment to focus its efforts and capital allocation on its two operating mines, the San Francisco Property and the Florida Canyon Mine. The Company also took steps to reduce costs at the Ana Paula Project site in Mexico while maintaining a level of local employment and community engagement.

Acquisition of Rye Patch Cold Corp.

On May 25, 2018, the Company acquired all of the issued and outstanding shares of Rye Patch Gold Corp. (“**Rye Patch**”) by way of a court-approved plan of arrangement under the BCBCA (the “**Rye Patch Acquisition**”). Rye Patch, through its wholly owned subsidiary Florida Canyon Mine, Inc. is the owner and operator of the Florida Canyon Mine. In connection with the Rye Patch Acquisition, the Company sold all of the issued and outstanding shares of Rye Patch to 1164410 B.C. Ltd. (“**1164410**”), a wholly owned subsidiary of the Company and Rye Patch and 1164410 subsequently amalgamated to form a wholly owned subsidiary of the Company, Alio Gold (US) Inc. On the closing of the Rye Patch Acquisition, the Company acquired 100% of Rye Patch’s issued and outstanding common shares, being 81,469,521 common shares, in exchange for 39,105,365 common shares of the Company (representing an exchange ratio of 0.48 common shares of the Company for each common share of Rye Patch (the “**Exchange Ratio**”). The Company also paid to each Rye Patch shareholder at the effective time of the Rye Patch Acquisition \$0.001 for each Rye Patch common share held (for a total amount of approximately \$81,000). The cash consideration paid by the Company to the shareholders of Rye Patch was funded by the Company from cash on hand. Outstanding Rye Patch options to purchase Rye Patch common shares were exchanged for fully vested options to purchase that number of common shares of the Company equal to the Exchange Ratio multiplied by the number of Rye Patch common shares subject to such Rye Patch options. Outstanding warrants to purchase Rye Patch common shares were converted into warrants to acquire common shares of the Company at the Exchange Ratio. Outstanding broker warrants and agent’s compensation options exercisable for Rye Patch common shares were also converted into broker warrants and agent’s compensation options exercisable for common shares of the Company at the Exchange Ratio.

Disposition of Non-Core Assets

On October 16, 2018, the Company announced that it had entered into a definitive agreement to sell non-core assets, located 40 kilometers south of the Company’s Florida Canyon Mine in Nevada to Coeur Rochester, Inc., a wholly owned subsidiary of Coeur Mining, Inc. (“**Coeur**”). The assets include those comprising the Lincoln Hill Project, Wilco Project, Gold Ridge Property and other nearby claims. Under the terms of the definitive agreement, the Company received total consideration of \$19 million upon closing of the transaction, payable in shares of Coeur common stock valued based on a volume-weighted average stock price for the five trading day period ending on the third trading day preceding the closing.

Debt Facility with Macquarie Bank Limited

During 2018 the Company restructured its existing debt facility with Macquarie Bank Limited which was scheduled to be repaid in December 2018. As of June 30, 2018 the outstanding principal of \$15 million was to be repaid in twelve quarterly payments of \$1.25 million in principal together with accrued interest, ending in June 2021. The Company reduced the debt facility to \$5 million by making the first scheduled principal and interest payment on September 30, 2018, monetizing the gold hedge book for proceeds of \$2.5 million and by utilizing approximately \$6.25 million in previously restricted cash to pay down the debt. The Company extinguished the debt in the fourth quarter of 2018.

In connection with the reduction of the Macquarie Bank Limited debt, the Company also settled a \$5 million contingent liability that the Company acquired with the Rye Patch Acquisition. The Company also updated its surety bond for the Florida Canyon Mine in Nevada, releasing an additional \$5.1 million in cash.

Board and Management Changes

During 2018, Tim Baker and John Mansanti joined the Company's board of directors and Doug Jones was appointed the Chief Operating Officer of the Company.

2017

San Francisco Property

On May 11, 2017, the Company announced the revitalization plan for the San Francisco Property, and subsequently filed an updated NI 43-101 compliant technical report on the San Francisco Property on May 26, 2017. See "*Mineral Properties – San Francisco Property*" below.

During the second half of 2017, steps were undertaken to revitalize the San Francisco Property. A waste stripping campaign was undertaken to open-up the main pit in phase 5 and 6 which resulted in increased mining flexibility and the ability to deliver consistent ore feed to the leach pads. The main pit opened across multiple mining faces as the ramp-up of pre-stripping reached sustainable and planned levels toward the end of 2017.

In the fourth quarter of 2017, opportunities to reduce capital expenditures envisioned in the revitalization plan for the San Francisco Property were investigated. In particular, crushing improvements which targeted improved metallurgical recovery were put on hold to evaluate improvements in recovery obtainable by improvements in blasting in open pit. In addition, the power upgrade project which commenced in the third quarter of 2017 was put on hold while discussions with power authorities ("CFE") were undertaken. During the fourth quarter of 2017, the CFE requested the Company pay for additional infrastructure not contemplated in the original scope of work. As a result of dialogue with CFE, the project was later abandoned.

Ana Paula Project

On April 10, 2017, the Company received authorization of the Environmental Impact Assessment for the Ana Paula Project from the Mexican regulator, the Secretaría de Medio Ambiente y Recursos Naturales ("**SEMARNAT**").

On May 16, 2017, the Company announced the results of a preliminary feasibility study on its Ana Paula Project, and subsequently filed an updated NI 43-101 compliant technical report on the Ana Paula Project on May 26, 2017 and a further revised version of the technical report on June 12, 2017, which incorporated non-material changes to the previously filed version. In July 2017, a definitive feasibility study in respect of the Ana Paula Project commenced.

On September 18, 2017, the Company announced that its board of directors had formally approved an underground exploration decline and exploration program at its Ana Paula Project. The Company also received authorization to start construction of the decline from SEMARNAT. The Company initiated a regional exploration program for the remainder of 2017 on a 56,000-hectare land package in the Guerrero Gold Belt.

On September 21, 2017, the Company received its Change of Land Use Approval for the Ana Paula Project. This approval covers the 370 hectares required for the proposed open pit mine, waste storage, process plant and the tailings storage facility.

Name Change and Share Consolidation

On May 12, 2017 the Company changed its name to Alio Gold Inc. (the “**Name Change**”) and effected a consolidation of its outstanding shares on a 10:1 basis (the “**Consolidation**”). Following the Consolidation, the number of outstanding common shares of the Company was approximately 35,562,860. The common shares commenced trading on a post-Consolidation basis on the Toronto Stock Exchange (“**TSX**”) and the New York Stock Exchange AMERICAN (“**NYSE AMERICAN**”) May 16, 2017 under the ticker symbol ALO. In this AIF, unless otherwise stated, capital balances prior to May 12, 2017, are stated on a pre-Consolidation basis. All other capital balances are stated on a post-Consolidation basis.

Bought Deal Financing

On July 20, 2017 the Company closed a bought deal offering of 8,062,000 units of the Company (the “**2017 Units**”), at a price C\$6.25 per 2017 Unit for gross proceeds to the Company of approximately C\$50.4 million. The 2017 Units were issued in a public offering in all of the provinces of Canada, other than Québec, pursuant to a short form prospectus dated July 12, 2017. The financing was underwritten by a syndicate of underwriters led by Cormark Securities Inc. and Clarus Securities Inc. and included Raymond James Ltd. and BMO Nesbitt Burns Inc. Each 2017 Unit consisted of one common share of the Company and one-half of one common share purchase warrant (each whole common share purchase warrant, a “**2017 Warrant**”). Each 2017 Warrant entitled the holder to acquire one common share at a price of C\$8.00 at any time prior to July 20, 2018. The net proceeds of the offering were used by the Company to advance the Ana Paula Project and for general corporate purposes.

Board and Management Changes

During 2017 Greg McCunn was appointed Chief Executive Officer and joined the board of directors of the Company. Anthony Hawkshaw resigned as a director of the Company and Taj Singh and Alex Tsakumis resigned as Vice President of Business Development and Vice President of Corporate Development respectively. Jason Gregg joined the Company as Vice President of Human Resources, Jose Hector was appointed and resigned as Vice President of Operations, Paul Hosford was appointed as Vice President Project Development and Colette Rustad was appointed as Chief Financial Officer of the Company in 2017.

Description of the Business

General

The Company is a publicly traded gold producer that owns and operates the Florida Canyon Mine, an open pit gold mine in Pershing County, Nevada USA, consisting of 11,866 hectares of surface area in the state of Nevada, USA. The Company also owns development stage properties in the states of Sonora and Guerrero, Mexico. The Company's principal product is gold with silver produced and sold as a by-product.

Locations of the Company's Assets



Gold Sales

The Company delivers gold and silver in doré form to an international precious metal refinery in North America where the doré may, at the Company's option, be converted into London Good Delivery metal, or alternatively, be sold to the refiner. Gold is delivered to the refinery by armoured, insured carriers. If the metal is returned to the Company, it is sold to international bullion dealers.

Metal Revenues

In 2019, the Company sold 80,530 gold ounces at an average realized gold price of \$1,333 per ounce, compared to sales of 82,598 gold ounces at an average realized gold price of \$1,280 per ounce during 2018. This represents a decrease of 3% in gold ounces sold and an increase of 4% in realized gold price over 2018.

Total metal revenues from mining operations in 2019 were \$111.5 million compared to \$104.5 million during 2018, due to lower gold ounces sold in 2018.

Financial Instruments

The Company holds open option contracts whereby the Company purchased the option to sell gold ounces at a set price (“**put option**”) and financed the purchase price of this put option by selling the right to a third party to purchase a number of the Company’s gold ounces at a set price (“**call option**”). The Company also holds forward contracts.

At December 31, 2019, the Company did not hold any option or forward contracts. Subsequent to December 31, 2019, the Company did not acquire any additional option or forward contracts.

Competitive Conditions

The Company’s business is to produce and sell gold. Prices are determined by world markets over which the Company has no influence or control. The Company’s competitive position is primarily determined by its costs compared to other producers throughout the world and its ability to maintain its financial integrity through metal price cycles. Costs are governed to a large extent by the grade, nature and location of the Company’s mineral reserves as well as by input costs and operating and management skills. In contrast with diversified mining companies, the Company focuses on gold production, development and exploration and is therefore subject to unique competitive advantages and disadvantages related to the price of gold and to a lesser extent, the price of its silver by-product. If gold prices increase, the Company will be in a relatively stronger competitive position than diversified mining companies that produce, develop and explore for other minerals in addition to gold. Conversely, if gold prices decrease, the Company will be at a competitive disadvantage to diversified mining companies. The mining industry is competitive, particularly in the acquisition of additional mineral reserves and resources in all phases of operation and the Company competes with many companies possessing similar or greater financial and technical resources.

Foreign Operations

The Company’s material mineral property, the Florida Canyon Mine, is located in a foreign jurisdiction: The United States. The Company’s non-material properties are located in a foreign jurisdiction: Mexico. Foreign operations accounted for 100% of the Company’s 2019 revenue and represented approximately 96% of the Company’s assets as at December 31, 2019.

Environmental Protection Requirements

Mining, exploration and development activities are subject to various levels of federal, provincial, state and local laws and regulations relating to the protection of the environment, including requirements for closure and reclamation of mining properties.

The Company’s total liability for reclamation and closure cost obligations at December 31, 2019, was \$35.6 million and was calculated using an effective weighted discount rate of 2.9%. The undiscounted value of this liability is \$36.7 million, calculated using an effective weighted inflation rate assumption of 2.4%. Reclamation expenditures for the year ended December 31, 2019, were nil.

Environmental Policies

The Company implemented an environmental policy in August 2017 which was updated in November 2019 (the “**Environmental Policy**”). The Environmental Policy affirms the Company’s belief that effective environmental management is paramount to a successful future. To promote its commitment to environmental management, the Company has committed to develop and maintain a comprehensive environmental management system with

environmental targets for each project and to promote employee commitment to environmental performance through appropriate training and periodic evaluations. Furthermore, the Company has committed to conduct business in a manner that attempts to minimize any potential environmental impacts, foster mutually beneficial environmental partnerships with host communities and maintain open and transparent communication with stakeholders that may be impacted by its operations. Finally, the Company has committed to identify and protect sites of environmental or cultural significance, provide for the reclamation and rehabilitation of areas impacted by its operations and maintain a culture where environmental, social, cultural and economic considerations are integrated into all planning and decision-making processes.

Employees

As of December 31, 2019, the Company had nine full-time employees and contractors at its head office in Vancouver, Canada.

The Company had one full-time employee at its office in Reno, Nevada. At its Florida Canyon Mine the Company had 192 employees.

In addition, the Company had 12 full-time employees at its office in Hermosillo, Mexico, and 36 full-time employees and contractors at the Ana Paula Project. At its San Francisco Property the Company had 87 employees and contractors.

REORGANIZATION

As a result of the Rye Patch Acquisition, the Company acquired wholly owned subsidiaries Rye Patch Gold Corp. (now Alio Gold (US) Inc.), Rye Patch Mining US Inc., Rye Patch Gold US Inc., RP Dirt Inc., Standard Gold Mining, Inc. and Florida Canyon Mining Inc. See “*General Development of Business – 2018*”. In October 2018, the Company completed a restructuring process to simplify its corporate structure. See “*Corporate Structure*”.

RISK FACTORS

Risk Factors Relating to the Company’s Business

The Company faces risks and uncertainties related to the coronavirus (2019-nCov).

The business of the Company is dependent on a number of key inputs and their related costs, including materials, supplies and equipment related to operations, as well as electricity, water and other utilities. Recently, the coronavirus (2019-nCov) has spread across the world and developed into a pandemic. It may cause fear and uncertainty to rise and cause governments to regulate or restrict the flow of labor or products. The Company’s operations, suppliers and distribution channels could be severely impacted. Any significant interruption, price increase or negative change in the availability or economics of the supply chain for key inputs could curtail or preclude the Company’s ability to continue production. Such a pandemic could also have an adverse impact on consumer demand for the Company’s products, gold prices and the trading price of its common shares. In addition, the Company’s operations would be significantly affected by the spread of the coronavirus in the communities in which it operates or if its employees become sick or are restricted from working.

The Company’s revenue is derived primarily from the sale of gold, and therefore decreases in the price of gold may cause the Company’s revenue to decrease substantially.

The majority of the Company’s revenue is derived from the sale of gold, and therefore fluctuations in the price of gold represent one of the most significant factors affecting the Company’s operations and profitability. To a lesser extent, the Company also generates revenue from other by-product or co-product metals, such as silver. The prices of gold and other commodities have fluctuated widely in recent years and are affected by numerous factors beyond the Company’s control, including:

- levels of supply and demand;
- global or regional consumptive patterns;
- sales by government holders;

- metal stock levels maintained by producers and others;
- increased production due to new mine developments and improved mining and production methods;
- speculative activities;
- inventory carrying costs;
- availability and costs of metal substitutes;
- international economic and political conditions;
- interest rates;
- currency values; and
- inflation or deflation.

The market prices of gold and other metals may decline from current levels. Declining market prices for gold or other metals could materially adversely affect the Company's operations and profitability. Further, a decline in the market price of gold may also require the Company to write-down its mineral reserves or resources, which would have a material adverse effect on its earnings and profitability.

The Company's inability to access additional capital could have a negative impact on its growth strategy.

The Company has limited financial resources and operating income, and adequate funding may not be available to further its development projects. The Company may need to raise additional capital to fund its operations, and such capital may not be available on commercially acceptable terms, if at all. If the Company is unable to obtain additional capital on commercially acceptable terms, the Company may be forced to reduce or curtail its operations or its anticipated exploration activities. Although the Company has been successful in the past in financing its activities through the sale of equity securities or incurring debt, it may not be able to obtain sufficient financing in the future. The Company's ability to arrange additional financing in the future will depend, in part, on the prevailing capital market conditions as well as the business performance of the Company.

The Company operates in a highly competitive industry with many large competitors, and it expects that competition may intensify in the future.

The gold mining industry is intensely competitive, and the Company competes with other companies that have greater financial and human resources and technical facilities. Competition is primarily for mineral-rich properties which can be developed and produced economically; the technical expertise to find, develop, and produce such properties; the labor and equipment to operate such properties; and the capital to finance the development of such properties. Many of the Company's competitors not only explore for and mine precious metals but conduct refining and marketing operations on a worldwide basis and have far greater financial and technical resources than the Company. Such competition may result in the Company being unable to acquire desired properties, recruit or retain qualified employees or acquire the capital necessary to fund its operations and develop its properties, which could have an adverse effect on results.

The Company is subject to particular risks associated with doing business in Mexico, any of which could result in additional costs to the Company and cause its operating results to suffer.

The Company has properties located in Mexico. In the past, Mexico has been subject to a number of risks and uncertainties, including:

- terrorism and hostage taking;
- expropriation or nationalization without adequate compensation;
- difficulties enforcing judgments obtained in Canadian or United States courts against assets located outside of those jurisdictions;
- high rates of inflation;
- changes to royalty and tax regimes;
- substantial fluctuations in currency exchange rates;
- volatile local political and economic developments;

- difficulty understanding and complying with the regulatory and legal framework respecting the ownership and maintenance of mineral properties, mines and mining operations;
- as the price of fuel is set by the federal government the fuel component of cost structure is not necessarily determined by market forces; and
- difficulty obtaining key equipment and components for equipment.

Criminal activities in the State of Guerrero, where the Company's Ana Paula Project is located, or the perception that criminal activities are likely, may disrupt operations, hamper the ability to hire and keep qualified personnel and impair access to sources of capital. Risks associated with conducting business in the region include risks related to personnel safety and asset security. Risks may include but are not limited to: kidnappings of employees and contractors, exposure of employees and contractors to local crime related activity and disturbances, exposure of employees and contractors to drug trade activity, and damage or theft including future gold shipments, if any. These risks could result in serious adverse consequences including personal injuries or death, property damage or theft, limiting or disrupting operations, restricting the movement of funds, impairing contractual rights and causing the Company to shut down operations, all of which may expose the Company to costs as well as potential liability. Such events could have a material adverse effect on the Company's cash flows, earnings, results of operations and financial condition and make it more difficult for the Company to obtain required financing. Although the Company intends to develop procedures regarding these risks, due to the unpredictable nature of criminal activities, there is no assurance that the Company's efforts will effectively mitigate risks and safeguard personnel and Company property.

Any of these factors, among others, may cause changes in the existing business or regulatory environment in Mexico with respect to mineral exploration and mining activities, which could result in additional costs to the Company and thereby cause its operating results to suffer. In addition, the enforcement by the Company of its legal rights to exploit its properties may not be recognized by the government of Mexico or by its court system. These risks, along with any variation from the current regulatory, economic and political climate may limit or disrupt the Company's operations, restrict the movement of funds or result in the deprivation of contractual rights. The Company obtains insurance coverage to partially mitigate risk; however, there is no assurance that adequate insurance will be available to cover all risks or if insurance coverage is available the cost of coverage might be prohibitive.

The Company's business is subject to various governmental regulations, and compliance with these regulations may cause the Company to incur significant expenses. If the Company fails to maintain compliance with applicable regulations, it may be forced to pay fines, be subject to civil penalties or be forced to temporarily halt or cease operations.

The Company's business is subject to a variety of federal, state, provincial and local laws and regulations in Mexico, the United States and Canada, including:

- environmental protection;
- management and use of toxic substances and explosives;
- management of natural resources;
- exploration, development, production and post-closure reclamation of mines;
- imports and exports;
- price controls or production restrictions;
- taxation;
- mining royalties;
- labour standards and occupational health and safety, including mine safety; and
- historical and cultural preservation.

The Company's Florida Canyon Mine as a United States mine is subject to continuous inspections by the United States Mine Safety and Health Administration ("MSHA"), which inspections often lead to notices of violation. Recently, MSHA has been conducting more frequent and more comprehensive inspections of mining operations in general.

Additional regulations or requirements also are imposed on the Florida Canyon Mine's tailings and waste disposal areas in Nevada under the Nevada Water Pollution Control Law and on the Company's operations in Nevada under Clean Air Act in Nevada. In addition, proposed Comprehensive Environmental Response, Compensation, and Liability Act regulations requiring mining companies to obtain supplemental financial assurance could, if adopted, have a material adverse effect on results of operations and cash flows.

The costs associated with compliance with these laws and regulations are substantial and possible future laws and regulations, changes to existing laws and regulations or more stringent enforcement of current laws and regulations by governmental authorities, could cause additional expense, capital expenditures, restrictions on or suspensions of the Company's operations and delays in the development of its properties. Moreover, these laws and regulations may allow governmental authorities and private parties to bring lawsuits based upon damages to property and injury to persons resulting from the environmental, health and safety impacts of the Company's past and current operations, or possibly even those actions of parties from whom the Company acquired its properties, and could lead to the imposition of substantial fines, penalties or other civil or criminal sanctions. It is difficult to strictly comply with all regulations imposed on the Company, and even with the application of considerable care the Company may inadvertently fail to comply with certain laws. Such events can lead to fines, penalties, loss, reduction or expropriation of entitlements, the imposition of additional local or foreign parties as joint venture partners and other material negative impacts on the Company.

The Company may experience reduced liquidity and difficulty in obtaining future financing.

The Company may not continue to generate cash flow from operations in the future sufficient to service its debt and make necessary or planned capital expenditures. If the Company is unable to generate such cash flow, it may be required to adopt one or more alternatives, such as selling assets, borrowing additional funds, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive, cancelling or deferring capital expenditures and/or suspending or curtailing operations. Such actions may impact production at mining operations.

The Company's ability to borrow additional funds or refinance its indebtedness will depend on the capital markets and its financial condition at such time. The Company may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on its debt obligations.

Restrictive covenants in the Company's credit facilities may impact business activities.

Pursuant to The Company's credit facilities, the Company must maintain certain financial ratios and satisfy other non-financial maintenance covenants. The Company and certain of its subsidiaries are also subject to other restrictive and affirmative covenants in respect of the Company's respective operations. These covenants include, without limitation, restrictions on the Company's ability to incur additional indebtedness; pay dividends or make other distributions; make loans or investments; sell, transfer or otherwise dispose of assets; and incur or permit to exist certain liens.

Compliance with these covenants and financial ratios may impair the Company's ability to finance its future operations or capital needs or to take advantage of other favourable business opportunities. The Company's ability to comply with these covenants and financial ratios will depend on its future performance, which may be affected by events beyond its control. The Company's failure to comply with any of these covenants or financial ratios, if left uncured, will result in a default under applicable credit agreements and may result in the acceleration of the applicable indebtedness and other indebtedness to the extent there are cross-default provisions. In the event of a default and the Company being unable to repay any amounts then outstanding, the applicable lender(s) may be entitled to take possession of any collateral securing the credit facilities to the extent required to repay those borrowings.

If the Company is unable to hire, train, deploy and manage qualified personnel in a timely manner its ability to manage and grow its business will be impaired.

Recruiting and retaining qualified personnel is critical to the Company's success. The Company is dependent on the services of key executives including the Company's President and Chief Executive Officer and other highly skilled and experienced executives and personnel focused on managing the Company's interests. The number of persons skilled in acquisition, exploration and development of mining properties is limited and competition for such persons is intense. The Company may not be successful in attracting, training and retaining qualified personnel as competition

for persons with these skill sets increases. If the Company is not successful in attracting, training and retaining qualified personnel, the efficiency of its operations could be impaired, which could have an adverse impact on its future cash flows, earnings, results of operations and financial condition.

The Company may be unable to obtain or renew required government permits or may only be able to do so at significant expense, which may harm its operating results.

In the ordinary course of business, the Company is required to obtain and renew governmental permits and licenses for the operation and expansion of existing operations or for the development, construction and commencement of new operations. Obtaining or renewing the necessary governmental permits and licenses is a complex and time-consuming process, often involving public hearings and costly undertakings on the Company's part.

The duration and success of the Company's efforts to obtain and renew permits and licenses are contingent upon many variables not within its control, including the interpretation of applicable requirements implemented by the permitting authority. The Company may not be able to obtain or renew permits or licenses that are necessary to its operations, or the cost to obtain or renew permits or licenses may exceed what the Company believes it can recover from a given property once in production. Any unexpected delays or costs associated with the permitting and licensing process, including challenges to the terms of such permits or licenses, whether successful or unsuccessful, could delay the development or impede the operation of a mine, which could adversely affect the Company's operations and profitability.

For the Company to carry out its mining activities, its exploitation licenses must be kept current. There is no guarantee that the Company's exploitation licenses will be extended or that new exploitation licenses will be granted. In addition, such exploitation licenses could be changed and applications to renew existing licenses may not be approved. The Company may also be required to contribute to the cost of providing the required infrastructure to facilitate the development of its properties. The Company will also be required to obtain and comply with permits and licenses that may contain specific conditions concerning operating procedures, water use, waste disposal, spills, environmental studies, abandonment and restoration plans and financial assurances. The Company may not be able to comply with any such conditions.

The Company is subject to taxation in multiple jurisdictions and changes to the taxation laws of such jurisdictions could have a material adverse effect on its profitability.

The Company has operations and conducts business in multiple jurisdictions and it is subject to the taxation laws of those jurisdictions. The Company may be subject to review, audit, and assessment in the ordinary course, the outcome of which could result in penalties imposed or higher taxes being payable, any of which could have a material adverse effect on the Company. These taxation laws are complicated and subject to change. The introduction of new tax laws, regulations or rules, or changes to, or differing interpretation of, or application of, existing tax laws, regulations or rules in any of the countries in which the Company's operations or business is located, could result in an increase in the Company's taxes, or other governmental charges, duties or impositions, or an unreasonable delay in the refund of certain taxes owing to the Company. No assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit or curtail production or development.

Failure to discover new reserves, maintain or enhance existing reserves or develop new operations could negatively affect the Company's future results and financial condition.

The long-term operation of the Company's business and its profitability is dependent, in part, on the cost and success of its exploration and development programs. Many of the Company's properties are in the exploration and development stages and only the San Francisco Property, the Ana Paula Project and the Florida Canyon Mine have mineralization considered a mineral reserve pursuant to CIM standards. Mineral exploration and development involve a high degree of risk and few properties that are explored are ultimately developed into producing mines. The Company's mineral exploration and development programs may not result in any discoveries of bodies of commercially viable mineralization, and even if commercial quantities of mineralization are discovered, the Company may not be able to bring the mineral property into commercial production. Development of the Company's mineral properties will follow only upon obtaining satisfactory exploration results. Discovery of mineral deposits is dependent

upon a number of factors, not the least of which is the technical skill of the exploration personnel involved. The commercial viability of a mineral deposit once discovered is also dependent upon a number of factors, some of which are the particular attributes of the deposit (such as size, grade and proximity to infrastructure), metal prices, permitting, anticipated capital and operating costs and government regulations, including regulations relating to royalties, allowable production, importing and exporting of minerals and environmental protection. Most of the above factors are beyond the Company's control. As a result, the Company's acquisition, exploration and development programs may not yield new reserves to replace or expand current reserves. Unsuccessful exploration or development programs could have a material adverse effect on the Company's operations and profitability.

In addition, the Company's ability to sustain its present levels of gold production is dependent upon the identification of additional reserves at the Florida Canyon Mine. If the Company is unable to develop new ore bodies, it may not be able to sustain or increase present production levels. Reduced production would have a material and adverse effect on future cash flows, results of operations and financial condition.

The Company is subject to various operating risks and hazards associated with its exploration and mining operations, any of which could cause it to incur substantial expenses or affect the economic feasibility of its projects. The Company may be unable to insure against such risks, or to insure against such risks at a reasonable cost.

The ownership, operation and development of a mine or mineral property involves many risks which even a combination of experience, knowledge and careful evaluation may not be able to overcome. These risks include:

- environmental hazards;
- industrial accidents, explosions and third-party accidents;
- the encountering of unusual or unexpected geological formations;
- ground falls, rock bursts, cave-ins and seismic activity including earthquakes;
- fires and flooding;
- metallurgical and other processing problems, including the availability and costs of processing and refining facilities;
- availability of economic sources of power;
- variations in grade, deposit size, density and other geological problems;
- unanticipated adverse geotechnical conditions;
- incorrect data on which engineering assumptions are made;
- mechanical equipment performance problems;
- unavailability or significant changes in the cost of materials and equipment including fuel;
- labour force or local community disruptions;
- title claims, including aboriginal land claims;
- unanticipated transportation costs; and
- periodic interruptions due to inclement or hazardous weather conditions.

These occurrences could result in:

- environmental damage and liabilities;
- work stoppages, delayed production and resultant losses;
- increased production costs;
- damage to, or destruction of, mineral properties or production facilities and resultant losses;
- asset write downs;
- monetary losses;
- claims for compensation of loss of life or damages in connection with accidents that occur on company property, and punitive awards in connection with those claims; and
- other liabilities.

These factors, among others, may cause anticipated capital and operating costs, production and economic returns, or other estimates to differ significantly from the Company's actual capital and operating costs. It is not always possible to fully insure against such risks and the Company may decide not to insure against such risks due to high premiums or for other reasons. Should any such uninsured liabilities arise, they could adversely impact the Company's profitability.

The Company's operations are dependent on the accessibility and reliability of existing local infrastructure, and its exploration or exploitation activities are dependent upon adequate infrastructure being available in the future.

Mining, processing, development and exploration activities depend, to some degree, on adequate infrastructure. Reliable roads, bridges, power sources and water supply are important determinants, which affect capital and operating costs. The lack of availability on acceptable terms or the delay in the availability of any one or more of these items could prevent or delay exploitation or development of the Company's projects. If adequate infrastructure is not available in a timely manner, the exploitation or development of the Company's projects may not be commenced or completed on a timely basis, if at all. In addition, the resulting operations may not achieve the anticipated production volume, or the construction costs and ongoing operating costs associated with the exploitation and/or development of the Company's advanced projects will be higher than anticipated. Unusual or infrequent weather phenomena, sabotage, government or other interference in the maintenance or provision of such infrastructure could adversely affect the Company's operations and profitability.

The Company is subject to extensive environmental regulation, and any failure of compliance could result in fines or government sanctions, civil liabilities and damage to its reputation.

All phases of the Company's operations are subject to environmental laws and regulations. These laws and regulations set certain standards regarding health and environmental quality, and provide for penalties and other liabilities for violations, as well as obligations to rehabilitate current and former properties in certain circumstances. Furthermore, operating permits could be temporarily withdrawn where there is evidence of serious breaches of health and safety, or even permanently, in the case of extreme breaches. Significant liabilities could be imposed on the Company for damages, clean-up costs or penalties in the event of certain discharges into the environment, environmental damage caused by previous owners of acquired properties or noncompliance with environmental laws. In addition, environmental legislation is generally evolving in a manner which will require stricter standards and will be subject to increased enforcement, fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. Such changes in environmental regulation, if any, may adversely impact the Company's operations and profitability. In addition, U.S. environmental conservation efforts could result in the withdrawal of certain federal lands from mineral entry under applicable mining laws, which could have the effect of restricting the Company's current or future planned activities at the Florida Canyon Mine involving its unpatented mining claims on the affected public lands

Land reclamation requirements may be burdensome.

Land reclamation requirements are generally imposed on companies with mining operations in order to minimize the long-term effects of land disturbance, and the Company is subject to such requirements at its mineral properties. Reclamation obligations include requirements to:

- control dispersion of potentially harmful effluents; and
- reasonably re-establish pre-disturbance landforms and vegetation.

To carry out reclamation obligations arising from exploration and development activities, the Company must allocate financial resources that might otherwise be spent on further exploration and development programs. If the Company is required to carry out unanticipated reclamation work, its financial position could be adversely affected.

The Company's production and exploration depend on its ownership of, or control over, the properties on which it operates, and maintaining existing property rights or obtaining new rights is a highly competitive and costly process.

The Company's ability to carry out successful mining activities will depend in part on its ability to obtain tenure to its properties to the satisfaction of international lending institutions. The issue of any such licenses must be in accordance

with applicable law and relevant mining legislation. The validity of mining or exploration titles or claims or rights, which constitute most of the Company's property holdings, can be uncertain and may be contested. The Company has used reasonable commercial efforts to investigate its title or claims to its various properties and, to its knowledge, except where it has otherwise identified, those titles or claims to material properties are in good standing. However, the Company has not conducted surveys of all the claims in which it holds direct or indirect interests and therefore, the precise area and location of such claims may be in doubt. The Company's properties may also be subject to prior unregistered liens, agreements or transfers, native land claims or undetected title defects. Governmental authorities may revoke or significantly alter the conditions of the applicable exploration and mining titles or claims, and such exploration and mining titles or claims may be challenged or impugned by third parties, which could materially impact the Company's rights to its various properties or interests. Title insurance is generally not available for mining properties, and the Company's ability to ensure that it has obtained secure claims to individual mineral properties or mining concessions may be severely constrained.

Mines have limited lives and, as a result, the Company continually seeks to replace and expand reserves through the acquisition of new properties. In addition, there is a limited supply of desirable mineral lands available in areas where the Company would consider conducting exploration, development or production activities. Because the Company faces strong competition for new properties from other mining companies, some of which have greater financial resources than it does, the Company may be unable to acquire attractive new mining properties on terms that it considers acceptable. Competition in the mining business for limited sources of capital could adversely impact the Company's ability to acquire and develop suitable mines, developmental projects or properties having significant exploration potential. As a result, the Company's acquisition, exploration and development programs may not yield new mineral reserves to replace or expand current mineral reserves.

The process of estimating mineral reserves and resources is subject to inherent uncertainties and reported reserves and resources may not accurately reflect the economic viability of the Company's properties.

There is a degree of uncertainty attributable to the estimation of mineral reserves and mineral resources. Until mineral reserves or mineral resources are actually mined and processed, the quantity of mineral and reserve grades must be considered as estimates only. Levels of metals indicated by such mineral reserves or mineral resources may not be produced, and the Company may not receive the price assumed in determining its reserves. These estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available. While the Company believes that its reserve and resource estimates are well established and reflect management's best estimates, by their nature reserve and resource estimates are imprecise and depend, to a certain extent, upon analysis of drilling results and statistical inferences that may ultimately prove unreliable.

Furthermore, fluctuations in the market price of metals, as well as increased capital or production costs or reduced recovery rates may render ore reserves uneconomic and may ultimately result in a reduction of reserves. The extent to which resources may ultimately be reclassified as proven or probable reserves is dependent upon the demonstration of their profitable recovery. The evaluation of reserves or resources is always influenced by economic and technological factors, which may change over time. Resource estimates may not ultimately be reclassified as proven or probable reserves. If the Company's reserve or resource figures are inaccurate or are reduced in the future, this could have an adverse effect on its future cash flows, earnings, results of operations and financial condition.

In estimating its reserves and resources, the Company relies on laboratory-based recovery models to project estimated recoveries by ore type at optimal crush sizes. Actual gold recoveries in a commercial heap leach operation may exceed or fall short of projected laboratory test results. In addition, the grade of mineralization ultimately mined may differ from the one indicated by the drilling results and the difference may be material. Production can be affected by such factors as permitting regulations and requirements, weather, environmental factors, unforeseen technical difficulties, unusual or unexpected geological formations, inaccurate or incorrect geological, metallurgical or engineering work and work interruptions, among other things. Short term factors, such as the need for an orderly development of deposits or the processing of new or different grades, may have an adverse effect on mining operations or the results of those operations. Minerals recovered in small scale laboratory tests may not be duplicated in large scale tests under on-site conditions or in production-scale operations. Material changes in proven and probable reserves or resources, grades, waste-to-ore ratios or recovery rates may affect the economic viability of projects. The estimated proven and probable

reserves and resources the Company discloses should not be interpreted as assurances of mine life or of the profitability of future operations.

The Company has engaged expert independent technical consultants to advise it on, among other things, mineral reserves and resources and project engineering at its mining projects. The Company believes these experts are competent and that they have and will carry out their work in accordance with internationally recognized industry standards. If, however, the work conducted and to be conducted by these experts is ultimately found to be incorrect or inadequate in any material respect, the Company may experience delays and increased costs.

The process of estimating future mine production and related costs are subject to inherent uncertainties, and actual results may differ materially from such estimates.

The Company periodically prepares estimates of future mine production and future production costs for the Florida Canyon Mine. There can be no assurance that the Company will achieve these production estimates. These production estimates are dependent on, among other things, the accuracy of underlying mineral reserve estimates; the accuracy of assumptions regarding ore grades and recovery rates, ground conditions and physical characteristics of ores; equipment and mechanical availability; labour availability; facilities and infrastructure; having sufficient materials and supplies on hand; and the accuracy of estimated rates and costs of mining and processing. Failure to achieve production estimates could have a material and adverse effect on any or all of the Company's future cash flows, results of operations and financial condition.

The Company's actual production and costs may vary from its estimates for a variety of reasons, including actual ore mined varying from estimates of grade, tonnage, dilution and metallurgical and other characteristics; short-term operating factors, such as the need for sequential development of ore bodies and the processing of new or different ore grades from those planned; and the risks and hazards associated with mining described throughout these "*Risk Factors Relating to the Company's Business*". In addition, metal recoveries in small scale laboratory tests may not be duplicated in larger scale tests under on-site conditions or during production and known and experienced recoveries may not continue. Costs of production may also be affected by changing stripping ratios, ore grade metallurgy, labour costs, costs of supplies and services (such as, for example, fuel and power), general inflationary pressures and currency exchange rates. Failure to achieve cost estimates could have a material and adverse effect on any or all of the Company's future cash flows, results of operations and financial condition.

Shortages, or increases in prices, of energy and other consumables can adversely affect the Company's results of operations.

The Company is dependent on various commodities (such as diesel fuel, electricity, steel, and concrete), labour and equipment (including parts) to conduct its mining operations and development projects. A shortage of such input commodities, labour or equipment or a significant increase of their cost could have a material adverse effect on the Company's ability to carry out its operations and therefore limit or increase the cost of production.

The Company is also dependent on access to and supply of water and electricity to carry out its mining operations, and such access and supply may not be readily available. Market prices of input commodities can be subject to volatile price movements which can be material, occur over short periods of time and are affected by factors that are beyond the Company's control, including global and regional supply and demand, political and economic conditions, and applicable regulatory regimes. An increase in the cost, or decrease in the availability, of input commodities, labour or equipment may affect the timely conduct and cost of the Company's operations and development projects. If the costs of certain input commodities consumed or otherwise used in connection with the Company's operations and development projects were to increase significantly, and remain at such levels for a substantial period, the Company may determine that it is not economically feasible to continue commercial production at some or all of its operations or the development of some or all of its current projects, which could have an adverse impact on the Company's financial performance and results of operations.

The Company has relied upon historical data that may be inaccurate or incomplete.

The Company has relied, and the technical reports prepared in respect of the Company's material property are based, in part, upon historical data compiled by previous parties involved with the material property. To the extent that any

of such historical data is inaccurate or incomplete, the Company's development and exploration plans may be adversely affected and could materially adversely affect the Company's business, results of operations, financial condition, and liquidity.

The Company may be unable to keep pace with innovations affecting the mining industry.

With volatility in the price of gold, silver and other metals and the Company's focus on cost reductions and higher efficiencies, the Company has limited funds available for investment in innovation and new technology. The Company deals with particularly challenging environments in its open pit operations. Given the significant costs associated with leveraging new technologies such as solar panels for energy and electrical mobile equipment, the Company may not be able to keep pace with innovations affecting the mining industry and leverage technology that may further drive investment and growth.

The expansion and development of the Company's mining properties is uncertain and subject to risk.

The development of the Company's properties that are found to be economically feasible will require the expansion and improvement of existing mining operations, as well as the construction and operation of additional mines, processing plants and related infrastructure. As a result, the Company is subject to all of the risks associated with establishing and expanding mining operations and business enterprises including:

- the timing and cost, which will be considerable, of the construction of additional mining and processing facilities;
- the availability and costs of skilled labour, power, water, transportation and mining equipment;
- the availability and cost of appropriate smelting and/or refining arrangements;
- the need to obtain necessary environmental and other governmental approvals, permits and licenses, and the timing of those approvals, permits and licenses; and
- the availability of funds to finance construction and development activities.

It is not unusual in new mining operations to experience unexpected problems and delays during the construction and development of a mine. In addition, delays in the commencement or expansion of mineral production often occur and, once commenced or expanded, the production of a mine may not meet expectations or estimates set forth in feasibility or other studies. Accordingly, the Company may not be able to successfully develop and expand mining operations or profitably produce precious metals at its exploration or development-stage properties.

The Company's results may be negatively affected by currency exchange rate fluctuations.

Fluctuations in currency exchange rates, particularly the weakening or strengthening of the U.S. dollar (being the currency in which the Company's products are sold and the currency in which the Company incurs capital and operating costs at the Florida Canyon Mine) against the Mexican peso (being the currency in which the Company incurs capital and operating costs at the San Francisco Property and the Ana Paula Project), could have a significant effect on the Company's results of operations. The Company does not currently have a formal policy of actively managing such currency fluctuations, and therefore, such fluctuations may have a significant effect on its financial results in any given period.

Community relations may affect the Company's business.

Maintaining a positive relationship with the communities in which the Company operates is critical to continuing successful operations. Community support for operations is a key component of a successful exploration or development project. As a business in the mining industry, the Company may come under pressure in the jurisdictions in which it explores or develops, to demonstrate that other stakeholders benefit and will continue to benefit from the Company's commercial activities. The Company may face opposition with respect to its current and future

development and exploration projects which could materially adversely affect the Company's business, results of operations, financial condition and share price.

Some of the Company's directors and officers have interests that may be different than the Company's interests.

Some of the Company's directors and officers are engaged and will continue to be engaged in the search for additional business opportunities on behalf of other companies, and situations may arise where these directors and officers will be in direct competition with the Company. Conflicts, if any, will be dealt with in accordance with Company policies and the relevant provisions of the *Business Corporations Act* (British Columbia).

The Company may experience problems associated with strategic transactions.

Strategic transactions, and other acquisitions or dispositions of assets, could involve numerous risks, including:

- potential disruption of the Company's ongoing business and distraction of management;
- difficulty integrating acquired businesses or segregating assets to be disposed of;
- exposure to unknown or contingent or other liabilities, including litigation arising in connection with the acquisition, disposition or against any businesses the Company may acquire, and
- changing the Company's business profile in ways that could have unintended consequences.

The Company may not be successful in addressing these risks or any other problems encountered in connection with any strategic transactions.

The Company may be subject to legal proceedings.

The Company may from time to time, become involved in various claims, legal proceedings, regulatory investigations, and complaints arising in the ordinary course of business. The Company cannot reasonably predict the likelihood or outcome of these actions, should they arise. If it is unable to resolve any such disputes favorably, it may have a material adverse effect on the Company's financial performance, cash flow and results of operations. In particular, see "*Legal Proceedings and Regulatory Actions*".

The Company faces risks and uncertainties related to the repatriation of funds from its foreign subsidiaries.

The Company expects to generate cash flow and profits at its foreign subsidiaries and may need to repatriate funds from those subsidiaries to fulfill its business plans, in particular in relation to ongoing expenditures at its exploration and development assets. The Company may not be able to repatriate funds or may incur tax payments or other costs when doing so, as a result of a change in applicable law or tax requirements at local subsidiary levels or at the parent level, which costs could be substantial.

Risk Factors Relating to the Company's Common Shares

The price of the Company's common shares may be volatile.

The trading price of the Company's common shares has been and may continue to be subject to material fluctuations and may increase or decrease in response to a number of events and factors, including:

- changes in the market price of the commodities the Company sells and purchases, particularly gold and silver;
- current events affecting the economic situation and exchange rates in Canada, the United States, Mexico and internationally, including 2019-nCov;
- changes in financial estimates and recommendations by securities analysts;
- acquisitions and financings;
- quarterly variations in operating results;
- the operating and share price performance of other companies that investors may deem comparable;
- the issuance of additional equity securities by the Company or the perception that such issuance may occur; and
- purchases or sales of blocks of the Company's common shares.

Part of this volatility may also be attributable to the current state of the stock market, in which wide price swings are common. This volatility may adversely affect the prices of the Company's common shares regardless of the Company's operating performance and could cause the market price of the Company's common shares to decline.

The Company does not intend to pay dividends for the foreseeable future.

The Company has never declared or paid any cash dividends on the Company's common shares and does not intend to pay any cash dividends in the foreseeable future. The Company anticipates that it will retain all of its future earnings for use in the development of its business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of the Company's board of directors. In addition, from time to time the Company may enter into agreements that restrict its ability to pay dividends.

If securities analysts or industry analysts downgrade the Company's common shares, publish negative research or reports, or do not publish reports about the Company's business, the price of and trading volume of the Company's common shares could decline.

The trading market for the Company's common shares will be influenced by the research and reports that industry or securities analysts publish about the Company, its business and its market. If one or more analysts adversely change their recommendation regarding the Company's common shares, the price of the Company's common shares would likely decline. If one or more analysts cease covering or fail to regularly publish reports about the Company, it could lose visibility in the financial markets, which in turn could cause its share price or trading volume to decline. In addition, the Company's common share price could be adversely affected by negative stories written or broadcast about it.

Holders of the Company's common shares may experience dilution when outstanding options or warrants are exercised, or as a result of additional securities offerings which may reduce the Company's earnings per share.

There are a number of outstanding options and warrants pursuant to which additional common shares of the Company may be issued in the future. Exercise of such options or warrants may result in dilution to the Company shareholders. In addition, if the Company raises additional funds to finance its activities, through the sale of equity securities, shareholders may have their investment diluted. If the Company issues additional common shares, shareholders' percentage ownership of the Company will decrease and shareholders may experience dilution in the Company's earnings per share. Moreover, as the Company's intention to issue any additional equity securities becomes publicly known, the common share price may be materially and adversely affected.

MINERAL PROPERTIES

San Francisco Property

The Company has determined that the San Francisco project is no longer a material property. Since December 31, 2019 the Company announced the sale of the project and related property and assets.

Introduction and Technical Information

The following information has been derived from the NI 43-101 technical report entitled “*NI 43-101 F1 Technical Report Updated Resources and Reserves and Mine Plan for the San Francisco Gold Project, Sonora, Mexico*” dated May 25, 2017, with an effective date of April 1, 2017 (the “**San Francisco Technical Report**”), prepared by Micon International Limited of Toronto, Ontario (“**Micon**”). The Qualified Persons responsible for the San Francisco Technical Report are William J. Lewis, B.Sc., P.Geo., Ing. Alan J. San Martin, MAusIMM(CP), Mani Verma, P.Eng. and Richard M. Gowans, B.Sc., P.Eng. of Micon who have approved of the summary of the San Francisco Technical Report provided below. The San Francisco Technical Report is available on the Company’s website (www.aliogold.com) and has been filed with the Canadian securities regulatory authorities on SEDAR (www.sedar.com).

Subsequent to the effective date of the San Francisco Technical Report, the Company disclosed scientific and technical information in respect of the San Francisco Property that supersedes the San Francisco Technical Report in certain respects. Please see the section below entitled “*Update on the San Francisco Property*”.

Property Description and Location

The San Francisco Property is situated in the north central portion of the state of Sonora, Mexico, approximately 150 kilometres (“**km**”) north of the state capital, Hermosillo. In the San Francisco Technical Report and in this AIF, the term San Francisco Project refers to the area within the exploitation or mining concessions controlled by Alio Gold, while the term “San Francisco Property” refers to the entire land package (mineral exploitation and exploration concessions) under Alio Gold’s control.

The San Francisco Project is comprised of two previously mined open pits (San Francisco and La Chicharra), together with heap leach processing facilities and associated infrastructure located close to the San Francisco pit.

Alio Gold holds the San Francisco Project, which consists of 13 mining concessions, through its wholly-owned Mexican subsidiary Timmins Goldcorp Mexico, S.A. de C.V. All concessions are contiguous and each varies in size for a total property area of 33,667.72 hectares. In late 2005, the original Timmins II concession was subdivided into two concessions (Timmins II Fraccion Sur and Pima), as part of separate exploration strategies for the original Timmins II concession. All concessions are subject to a bi-annual fee and the filing of reports in May of each year covering the work accomplished on the San Francisco Property between January and December of the preceding year. The fee rates are estimated in U.S. dollars based on the rates published in the “Diario Oficial de la Federacion (DOF)” as of March 31, 2017.

Alio Gold acquired the first seven concessions covering the San Francisco Mine through its purchase of Molimentales in April 2007.

In 2006, Molimentales signed a temporary occupancy agreement with an agrarian community (“**Ejido**”) in Mexico called Los Chinos, whereby Alio Gold was granted access privileges to 674 hectares, the use of the Ejido’s roads, as well as being able to perform all exploration work on the area covered by the agreement. Subsequent to the agreement, Molimentales has completed the process (before the Mexican Federal Agrarian Secretariat) of converting the 674 hectares contracted from the Los Chinos Ejido into private property, and formalizing the purchase of the 674 hectares, before a notary public, according to the Sonora State Civil Code. The 674 hectares was purchased by Molimentales in 2011, and the final public instrument documenting the purchase was issued on February 9, 2015.

During August and September, 2009, Molimentales acquired the 800 hectares of surface land on which the San Francisco Mine is located, by means of five purchase agreements covering all of the Ejido Jesus Garcia Heroe de Nacozari's five former parcels that together form the 800 hectares.

Other parties control two mineral concessions which are contained within the area of the mineral concessions owned by Alio Gold but neither of these concessions impacts the main area of the San Francisco Project.

On February 23, 2011, Alio Gold announced that it had staked an additional 95,000 hectares of claims along the highly prospective Sonora-Mojave Megashear structural province in northern Sonora. Alio Gold has continued to stake additional concessions since February, 2011 and the total additional regional mineral concessions amounted to approximately 152,279.6 hectares in 2013.

On July 6, 2011, Molimentales acquired (through a straight purchase) a 10 hectares mineral concession called La Mexicana. Prior to this purchase, the La Mexicana mineral concession was the last area in the metamorphic package that did not belong to Alio Gold. Alio Gold reduced the size of the regional mineral concessions in 2015 by eliminating those areas deemed to have very little exploration potential, while maintaining the integrity of the overall concessions. After 2015, it retained approximately 19,713 ha. A further reduction occurred in 2016 when Alio Gold dropped the El Exito and El Picacho concessions. Therefore, Alio Gold currently retains a total of 13,284.19 hectares in its regional package of mineral concessions, which it believes contain the most prospective geology and mineralized targets upon which to base further exploration. The reduction in the size of the concessions has also resulted in a reduction in the bi-annual fees for the San Francisco Project.

The Mexican mining laws were changed in 2005 and, as a result, all mineral concessions granted by the Dirección General de Minas ("DGM") became mining concessions. There are no longer separate specifications for a mineral exploration or exploitation concession. A second change to the mining laws was that all mining concessions are granted for 50 years, provided that the concessions remain in good standing. As part of this change, all former exploration concessions which were previously granted for six years became eligible for the 50-year term.

Alio Gold has been granted the temporary occupation of surface rights at the San Francisco Mine by the DGM for the duration of the exploitation concessions. In the case of an exploration concession, the holder is granted temporary occupancy for the creation of land easements needed to carry out exploration for the duration of the mineral concession. In order to commence mining, the holder of the concession is required to negotiate the surface rights with the legal holder of these rights or to acquire the surface rights through a temporary expropriation. The current surface rights are more than adequate to cover the infrastructure, mining and stockpile areas needed for the life of the San Francisco Project.

Concessions are extendable provided that the application is made within the five-year period prior to the expiry of the concession and the bi-annual fee and work requirements are in good standing. Alio Gold has free and clear title to the equipment on the property and no obligations to pay any net smelter return ("NSR") royalties.

Accessibility, Climate, Physiography, Local Resources and Infrastructure

The San Francisco Project is located in the Arizona-Sonora desert in the northern portion of the Mexican state of Sonora, 2 km west of the town of Estación Llano (Estación), approximately 150 km north of Hermosillo and 120 km south of the United States/Mexico border city of Nogales along Highway 15 (Pan American highway). The closest accommodations are in Santa Ana, a small city located 21 km to the north on Highway 15.

The climate at the San Francisco Project site ranges from semi-arid to arid. The average ambient temperature is 21°C, with minimum and maximum temperatures of -5°C and 50°C, respectively. The average annual rainfall for the area is 330 mm with an upper extreme of 880 mm. The desert vegetation surrounding the San Francisco Mine is composed of low lying scrub, thickets and various types of cacti, with the vegetation type classified as Sarrocaulus Thicket.

Physiographically, the San Francisco Property is situated within the southern Basin and Range Province, characterized by elongate, northwest-trending ranges separated by wide alluvial valleys. The San Francisco Mine is located in a relatively flat area of the desert with the topography ranging between 700 and 750 m above sea level.

History

After conducting exploration on the San Francisco Project between 1983 and 1992, Compania Fresnillo S.A. de C.V. sold the property in 1992 to Geomaque Explorations Ltd. (“**Geomaque**”). After conducting further exploration, Geomaque decided to bring the San Francisco Project into production in 1995. Production began at the rate of 3,000 t/d of ore or 30,000 oz/y of gold. As a result of the discovery of additional reserves, an expansion of the mining fleet, crushing system and gold recovery plant was undertaken in an effort to increase production to 10,000 t/d of ore. Due to the prevailing market conditions in February, 2000, Geomaque announced a revised mine plan whereby higher grade ore with a lower stripping ratio would be mined from the San Francisco pit and the La Chicharra deposit, which is located west of the San Francisco pit. The San Francisco area contained the El Manto, the San Francisco, the En Medio and the El Polvorin deposits. All of these deposits were later incorporated into the main San Francisco pit. The La Chicharra zone was mined during the last two years of production as a second pit. Due to economic conditions, mining ceased and the operation entered into the leach-only mode in November, 2000. Between 1996 and 2002, Geomaque produced a total of 300,590 ounces of gold at the San Francisco Project. In May, 2002, the last gold pour was conducted; the plant was mothballed, and clean-up activities at the mine site began.

In 2003, Geomaque sought and received shareholder approval to amalgamate the corporation under a new Canadian company, Defiance Mining Corporation (“**Defiance**”). On November 24, 2003, Defiance sold its Mexican subsidiaries (Geomaque de Mexico and Mina San Francisco), which held the San Francisco Mine, to the Astiazaran family of Sonora and their private company.

Since June 2006, the Astiazaran family and their company Desarrollos Prodesa S.A. de C.V. have been extracting sand and gravel intermittently from both the waste dumps and the leach pads for use in highway construction as well as other construction projects.

Alio Gold acquired an option to earn an interest in the San Francisco Property in early 2005, whereupon it conducted a review of the available data and started an RC drilling program in August and September 2005. This was followed by a second drilling program comprised of both RC and diamond drilling in 2006, based on the results of the 2005 drilling program.

Geological Setting and Mineralization

The San Francisco Project is a gold occurrence with trace to small amounts of other metallic minerals. The gold occurs in granitic gneiss and the deposit contains principally free gold and occasionally electrum. The mineralogy, the possibility of associated tourmaline, the style of mineralization and fluid inclusion studies suggest that the San Francisco deposits may be of mesothermal origin.

The San Francisco deposits are roughly tabular with multiple phases of gold mineralization. The deposits strike 60° to 65° west, dip to the northeast, range in thickness from 4 to 50 m, extend over 1,500 m along strike and are open ended. Another deposit, the La Chicharra zone, was mined by Geomaque, as a separate pit.

The Basin and Range province, which extends into Sonora from the United States, is characterized by northwest-trending valleys and ranges. Paleozoic rocks, including quartzite and limestone, overlie the Precambrian locally. The valleys are covered and in-filled by recent gravels.

The San Francisco Property lies in a portion of the Mojave-Sonora megashear belt characterized by the presence of Precambrian to Tertiary age rocks represented by different grades of deformation and metamorphism as evidenced in the field by imbricate tectonic laminates. The rocks principally involved in the process of deformation and associated with the gold mineralization in the region are of Precambrian, Jurassic and Cretaceous age.

The main vein systems in the region strike 50° to 80° west with dips ranging from northeast to southwest. These vein systems are the San Francisco, La Playa, El Diez, La Chicharra, and several systems in the La Mexicana area, Area 1B and La Escondida. A secondary system of veins includes the La Trinchera, Casa de Piedra, unnamed veins in portions of Area 1B and the La Mexicana veins which strike 60° to 80° east and dip northwest to southeast. Although the age relation between the two systems is unknown, it is believed that the northeast system is probably later stage.

The geology of the La Chicharra deposit, although it is hosted in the San Francisco group, differs from the geology found in the San Francisco pit. While the geology consists of quartz-feldspar gneiss, pegmatite, schist, granite and gabbro, the mineralization is hosted principally in gabbro. The gabbro has a very sheared appearance, almost like a breccia, comprised of large fragments with lenses of pegmatite between the fragments. Due to the shearing process, the blocks of gabbro are highly fractured and the fractures are filled with quartz veins and veinlets. The gold mineralization is hosted by the pegmatite lenses and in the veins and veinlets within the gabbro. The limits of the mineralized gabbro are very well delineated by the shear zones, at both the hanging wall and footwall. This geological control allowed for better operational planning during the exploitation by Geomaque. Alio Gold completed a program of core drilling seeking the extension of mineralization down dip and along strike, and confirming continuity for the first 150 m from the northern limit of the pit, with the mineralization open in the northwest direction towards La Severiana.

Structurally, all of the metamorphic and igneous interpretation is based on the High Resolution Airborne Magnetics which indicate a regional lineament varying in direction from 60° to 30° to the west. The gold deposits are located in the southern portion on each side of this main lineament, and are related to the extension faulting of the system west-northwest and west-east.

Exploration Programs

Alio Exploration Programs

In 2007 and early 2008, geochemical surveys were conducted over the area occupied by the package of igneous and metamorphic rocks within the concessions. A total of 222 chip samples and 2,697 soil samples were collected. The results confirmed the targets already identified from historical shallow underground workings developed by former miners along quartz veins containing high gold values.

During May, 2007, Alio Gold contracted the Mexican Geological Service to survey 1,227 km of high resolution aeromagnetic lineaments and radiometry and acquired raw data for a further 1,569 km previously surveyed by the same institution which fully covered the surface of the San Francisco Property, over 40,000 hectares. The resolution of the data varies due to the flight height, which ranged between 75 and 100 m, with the lines spaced every 100 m. The conclusion of this study was the definition of the indicative structural lineaments of the tectonic sequence in northern Sonora.

With a view to a more detailed interpretation, a Natural Source Audio-Frequency Magnetotelluric (“NSAMT”) survey was completed on the San Francisco Mine along the lines 200E, 0, 800W, 1,000W, 1,200W, 1,400W, 1,600W and on the La Chicharra pit along the lines 2,500W and 2,700W. A total of 19.2 km of coverage in 10 survey lines with dipoles of 25 m was completed. Two lines were 2,400 m long and the remainder were 1,800 m.

The San Francisco pit is clearly located within the magnetic high zone, positioned along a linear contact seen in the radiometric data. In contrast, the La Chicharra pit is located in a non-magnetic zone also positioned along a linear contact observed in the radiometric data. Both pit locations are within the area thought to be the shear zone, and locally in areas characterized by contacts between intrusive (more resistive) and possibly altered (more conductive) rock types. The NSAMT program successfully identified the shear zone and provided sub-surface imaging of geologic trends that have been identified by airborne magnetic and radiometric surveys, in the test area. Alio Gold has concluded that the interpretation of NSAMT is a useful indicator of the different lithologies associated with the mineralization or host rock.

At the end of 2008, the services of a structural geologist, were recruited to obtain a greater understanding of the structural evolution of the region and in particular the tectonic complex in the San Francisco Mine area, and thereby to define the structural controls for the mineralization. The conclusions from this structural report have assisted Alio Gold in outlining subsequent exploration programs.

From 2007 to 2009, concurrent with the feasibility study, which focused on re-starting the mining operations, Alio Gold conducted exploration comprised mainly of in-fill and confirmation drilling in and around of the San Francisco and La Chicharra pits. The drilling results as of the end of 2009 indicated that the mineralization extended both along strike and down dip of the known deposit, a situation which led to the decision to accelerate the drilling in the first 6

months of 2010. The results from the 2010 drilling, when combined with the previous results, led to Alio Gold updating the resource and reserve estimations, as well as its mine plan.

Between July 2010 and June 2011, Alio Gold conducted an intensive exploration drilling program which included deeper drilling to explore the mineralization at depth, both in and around the La Chicharra and San Francisco pits. The results of this drilling indicated that the mineralization is located in parallel mineralized bodies both along strike and at depth.

From July 2011 to June 2013, 1,464 RC and core holes were drilled for a total of 327,853 m. Most of the drilling was undertaken in and around the San Francisco pit and the La Chicharra pit. The RC drilling included 13,219 m in 62 holes of condemnation drilling and 3,842 m in 20 holes for water monitoring. A further 8 RC holes totaling 107 m were drilled on the low grade stockpile for grade control.

The drilling conducted within and around the San Francisco and La Chicharra pits comprised more than 92.8% of the drilling undertaken between July, 2011 and June, 2013. Both the RC and core drilling in these areas identified the extent of the mineralization along strike, as well as the extent down-dip, which remains open. The drilling surrounding the San Francisco and La Chicharra pits has been completed, except for defining the extent of the mineralization to the southeast of the San Francisco pit which remains open along strike and at depth. In 2013, Alio Gold had completed its planned exploration drilling programs. Additional in-fill drilling is necessary to confirm the extension in the up-dip direction from the newly discovered mineral zones identified at the northern extremity of the pit but it was still undecided if these areas were going to be exploited due to the lower gold price.

In the period between 2013 and 2017, Alio Gold has only conducted a small number of exploration drilling programs comprised of in-fill drilling in the San Francisco pit to cover gaps in drilling on the lower benches, exploration drilling to outline preliminary underground resources beneath the south wall of the pit and exploration drilling to the north of the San Francisco pit to potentially identify a secondary deposit which would supply feed to the heap leach pad and processing facilities at the San Francisco Mine.

The in-fill drilling in the San Francisco pit on the lower benches was successful in allowing a better understanding of the mineralization being extracted in these areas. The drilling in the south wall, along with preliminary underground mining, has helped to identify the extent and mining potential for these areas but further drilling will be necessary to fully identify the extent of the mineralized lenses in this area. The exploration drilling to the north produced mixed results with areas of good mineralization identified but the extent of the mineralization is still not fully understood and these areas will need further work to identify if they are amenable to open pit mining methods.

Alio Gold has continued to conduct in-fill drilling programs which have led to two small satellite pits to the north and northeast being identified around the La Chicharra deposit and a small pit to the southeast of the San Francisco deposit. These small pits are only a few benches deep.

In-fill drilling has been conducted in the pit to further define the mineralization and this information was used to update the mineral resources. Please see the “*Update on the San Francisco Project*”.

Future Exploration Programs

As of May 25, 2017, Alio Gold was not planning any further exploration programs on the San Francisco Property.

Sampling, Analysis and Data Verification

A common feature in the sampling process for RC drilling is that a unique sample tag is inserted into the sample bag with each sample, and each sample bag is marked with its individual sample number. The bags containing the blank and standard samples are added into the sequential numbering system prior to shipment of the samples to the preparation facility. Sample preparation and assaying were performed at the San Francisco Mine. Approximately 15% of the samples assayed in the laboratory at the San Francisco Mine were checked at an external laboratory. The principal external laboratory has been the IPL-Inspectorate laboratory in Vancouver, B.C.

For core drilling, control starts after a run has been completed and the rods are pulled out of the hole. Once the core is removed, it is placed in core boxes. This step in the procedure is completed by the contractor's personnel, under the supervision of an Alio Gold geologist. Alio Gold and the drill contractors follow generally accepted industry procedures for core placement in the core boxes. Bags containing blank and standard samples are added into the sequential sample numbering system prior to being shipped to the assay preparation facilities of Inspectorate or ALS-Chemex. Both of these preparation facilities are located in Hermosillo, although ALS-Chemex has sent samples to its facilities in Chihuahua and Zacatecas for preparation.

As part of Alio Gold's QA/QC procedures, a set of samples comprised of a blank sample, a standard reference sample and a field duplicate sample are inserted randomly into the sample sequence. The insertion rate for the blanks, standards and duplicate samples is approximately one each in every 25 samples.

Samples from the San Francisco Mine are picked up periodically by Inspectorate de Mexico, SA de CV., a subsidiary of Inspectorate America Corp.

Alio Gold has stopped using its assay laboratory at the San Francisco Mine to analyze samples and is only preparing samples on site at this time. However, there were still some mine laboratory assays in the QA/QC program. The San Francisco Mine laboratory continues to participate in a round-robin assay process through CANMET, which is the Materials Technology Laboratory at Natural Resources Canada, a branch of the Canadian Government.

Between January 2014 and December 2015, in addition to its regular QA/QC programs, Alio Gold added a program of conducting screen metallic samples as part of its assay checks to deal with free gold that it observed at the Vetatierra Project.

Mineral Resource and Reserve Estimates

The Mineral Resource and Reserve estimate in this section is as at the date of the San Francisco Technical Report. For an update to the Mineral Resource and Reserve estimate at the San Francisco Property, please see “Update on the San Francisco Property”.

Mineral Resource Estimate

The resource block model is based on 5 m by 5 m by 6 m high blocks. The coordinate limits of the previous model were retained for this current work. The topography was updated to reflect the mined surface as of April 1, 2017. The undisturbed pre-mining topographic surfaces are also available in the model.

Alio Gold has continued to conduct a manual interpretation of the mineralized zones, based on all of the drilling intersections now available in its database. This approach allows for more precise geological modelling and mineralization interpretation, which is enabling Alio Gold to plan better drilling programs to explore the extent of the mineralization and also to prepare better engineering designs regarding the ore and waste split in the pit for planning purposes. Grade envelopes and geological domains are directly interpreted by the geologists using the drilling information they have gathered.

The database of the San Francisco and La Chicharra deposits consists of 4,261 drill holes with 407,805 intervals, amounting to 640,782 m of drilling. A total of 135 of the drill holes lie beyond the model limits and have not been included in the study. The current database includes 13,877 m of drilling from 101 new holes drilled in 2016 and 2017.

Approximately 13% of the sampling intervals are greater than or equal to a 2 m length, about 84% of the intervals are between 1.5 and 2.0 m in length, and about 3% are less than 1.5 m in length. In the case of duplicate samples, the original sample was used in the database.

High grade outlier assays were capped at different gold grades, according to the domains.

Once Micon had audited and accepted Alio Gold's block model, Alio Gold proceeded to run a pit optimization program in order to estimate the resources. The gold price used for estimating the resources at the San Francisco Project was US\$1,350 per ounce. The parameters used in the pit optimization for the estimation of the resources are summarized in Table 2-1. They are a combination of the parameters determined by Micon and Alio Gold, taking into account the actual costs obtained from the operation.

Pit bench heights were set at 6 m (the block height used in the model) and slope angles were based on inter-ramp angles recommended by Golder Associates in its December, 1996, report, adjusted to allow for haul roads of 25 m width.

The pit shell adopted for reporting resources was estimated at a gold price of US\$1,350/troy ounce, using the economic parameters summarized in Table 1-1, the drilling database as of March 2017, and the topographic surface as of April 1, 2017. The Mineral Resource, as estimated by Alio Gold and audited by Micon, is presented in Table 1-2. This resource estimate includes the Mineral Reserve described subsequently, and has an effective date of April 1, 2017.

Table 1-1
Pit Optimization Parameters for the April 1, 2017, Resource Estimate
for the San Francisco and La Chicharra Deposits

Area	Costs			
San Francisco Mine	Description	Units	Amount	
	Waste mining cost	US\$/t	1.90	
	Ore mining cost	US\$/t	1.90	
	Process cost	US\$/t	3.35	
	G & A cost	US\$/t	0.47	
	Gold price	US\$/oz	1,350	
	Rock Densities and Recoveries			
	Name/code	Density	Recovery %	
	Diorite (2)	2.72	60.50	
	Gneiss (4)	2.75	75.29	
	Granite (5)	2.76	85.70	
	Schist (6)	2.75	71.70	
	Lamprophite dike (8)	2.76	60.50	
	Pegmatite (10)	2.85	71.70	
	Gabbro (11)	2.81	70.16	
	Conglomerate (12)	2.00	71.70	
	General Recovery		73.00	
	Area	Costs		

La Chicharra Mine	Description	Units	Amount
	Waste mining cost	US\$/t	1.45
	Ore mining cost	US\$/t	1.45
	Process cost	US\$/t	3.35
	G & A cost	US\$/t	0.47
	Gold price	US\$/oz	1,350
	Rock Densities and Recoveries		
	Name/code	Density	Recovery %
	All Rock (100-500)	2.9	76.69
	General Recovery		76.69

Micon recommended that Alio Gold use the April 1, 2017, Mineral Resource estimate contained in Table 1-2 as the stated Mineral Resource estimate for the San Francisco Project as this estimate recognizes the use of 0.121 g/t gold for the San Francisco deposit and 0.115 g/t gold for the La Chicharra deposit as the open pit (OP) cut-off grades, at which the mineralization would meet the parameters for potential economic extraction, as defined by the CIM standards and definitions for resources.

Table 1-2

Mineral Resource Estimate for the San Francisco Project (Inclusive of Mineral Reserves)
(\$1,350/oz Gold Price)

Area	Cut-off (Au g/t)	Category	Tonnes	Au (g/t)	Gold (Oz)
San Francisco Mine OP	0.121	Measured	39,713,000	0.531	678,000
		Indicated	20,604,000	0.566	375,000
		Measured & Indicated	60,317,000	0.543	1,053,000
		Inferred*	483,000	0.596	9,000
La Chicharra Mine OP	0.115	Measured	6,918,000	0.550	122,000
		Indicated	6,068,000	0.500	98,000
		Measured & Indicated	12,986,000	0.527	220,000
		Inferred*	231,000	0.488	4,000
La Chicharra Pit NW OP	0.115	Measured	673,000	0.550	12,000
		Indicated	558,000	0.616	11,000
		Measured & Indicated	1,231,000	0.580	23,000
		Inferred*	2,000	0.473	20
La Chicharra Pit North OP	0.115	Measured	186,000	0.676	4,000
		Indicated	92,000	0.628	2,000
		Measured & Indicated	278,000	0.660	6,000
		Inferred*	5,000	1.240	200

Total Resources	Measured	47,490,000	0.535	816,000
	Indicated	27,322,000	0.553	485,000
	Measured & Indicated	74,813,000	0.541	1,302,000
	Inferred*	721,000	0.566	13,000

*Inferred resources in this table only include material within the limits of the US\$1,350/oz pit shell and do not include material outside of the pits limit.

Micon believes that no environmental, permitting, legal, title, taxation, socio-economic, marketing or political issues exist which would adversely affect the Mineral Resources estimated above. However, Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The Mineral Resource figures in Table 1-2 have been rounded to reflect that they are estimates and therefore, the totals in the table may not add.

The Mineral Resource estimate has been reviewed and audited by Micon. It is Micon's opinion that the April 1, 2017, Mineral Resource estimate has been prepared in accordance with the CIM standards and definitions for Mineral Resource estimates and that Alio Gold can use this estimate as a basis for further exploration and economic evaluation of the San Francisco Project.

Mineral Reserve Estimate

Once Micon had audited and accepted Alio Gold's resource estimate, Alio Gold proceeded to run a pit optimization program in order to estimate the reserves. The gold price used for estimating the reserves at the San Francisco Project was US\$1,250 per ounce. The parameters used in the pit optimization for the estimation of reserves are the same as those used for the resource estimation.

Mining recovery has been estimated at 98% for both the San Francisco and La Chicharra deposits. Micon agrees with this estimate, as it is based on actual experience at the mine.

The dilution for the San Francisco and La Chicharra deposits varies, up to 4%, depending on the pit phases.

Table 1-3 presents the total reserves estimated within the pit design outline, including mine recovery and dilution factors.

Table 1-3

Mineral Reserves within the San Francisco and La Chicharra Pit Design (April 1, 2017) after Mining Recovery and Dilution

PIT	Classification	Metric tonnes	Gold (g/t)	Contained Gold Ounces
San Francisco Pit	Proven	27,048,000	0.578	502,500
	Probable	12,083,000	0.579	224,700
	Total	39,131,000	0.578	727,200
La Chicharra Pit	Proven	2,329,000	0.471	35,200
	Probable	5,328,000	0.551	94,300
	Total	7,657,000	0.526	129,600
La Chicharra Pit NW OP	Proven	170,000	0.434	2,400
	Probable	363,000	0.431	5,000
	Total	533,000	0.432	7,400

La Chicharra Pit North OP	Proven	72,000	0.638	1,500
	Probable	200,000	0.437	2,800
	Total	272,000	0.490	4,300
Total Pits	Proven	29,619,000	0.569	541,600
	Probable	17,974,000	0.566	326,900
	Total	47,593,000	0.568	868,500
San Francisco Mine	Low Grade Stockpile	7,199,000	0.26	60,200
San Francisco Mine	Total Pits + Stockpile	54,792,000	0.527	928,700

The proven and probable reserves in Table 1-3 have been derived from the measured and indicated Mineral Resources summarized in Table 1-2 and account for mining recovery and dilution. The figures in Table 1-3 have been rounded to reflect that they are an estimate and, therefore, the totals in the table may not add.

The Mineral Reserve estimate has been reviewed and audited by Micon. It is Micon's opinion that the April 1, 2017, Mineral Reserve estimate has been prepared in accordance with the CIM standards and definitions for Mineral Reserve estimates and that Alio Gold can use this estimate as a basis for further mine planning and operational optimization at the San Francisco Project (San Francisco and La Chicharra pits).

Operational Data

The foregoing operational, processing, cost and economic analysis data is presented as at the date of the San Francisco Technical Report. For updated operational data for the San Francisco Property, please see the Company's annual Management Discussion and Analysis for the Company's financial year ended December 31, 2018, available on SEDAR at www.sedar.com or on the Company's website at www.aliogold.com.

Production to Date

The San Francisco Mine resumed commercial production in April, 2010. Table 1-4 summarizes production from April, 2010 to the end of March, 2017, by quarter. Ore of lower grade is being stockpiled for processing at the end of the mine life. Alio Gold reports that, as of the end of August 2016, a total of 8.121 Mt at an average grade of 0.260 g/t gold had been placed on the low grade stockpile since 2010. However, Alio Gold has processed some of the stockpile material and the actual low grade stockpile contains 7.287 MT at an average grade of 0.26 oz/t gold as of the date of the San Francisco Technical Report.

During July, 2011, Alio Gold expanded the crushing system to 15,000 t/d. In December, 2012, a new additional 5,000 t/d crushing circuit was installed. The equipment initially installed was one jaw crusher, one secondary crusher, two tertiary crushers and two screens. In August 2013, an expansion was made to this crushing circuit, installing an additional secondary crusher, along with a screen, for a further capacity of 2,000 t/d. Total capacity for the new crushing circuit is 7,000 t/d.

With the original plant equipment and additions mentioned, the crushing capacity currently operates at 22,000 t/d. *Mine Plans and*

Activities

Production from the La Chicharra deposit recommenced in late 2015. The San Francisco and La Chicharra pits will be mined at the same time. The La Chicharra pit, previously mined by Geomaque, is located 1,000 m west of the San Francisco pit.

All mining activities are being carried out by the contractor, Peal Mexico, S.A. de C.V., of Navojoa, Mexico. The contractor is obliged to supply and maintain the appropriate principal and auxiliary mining equipment and personnel required to produce the tonnage mandated by Alio Gold, in accordance with the mining plan.

Alio Gold provides contract supervision, geology, engineering and planning and survey services, using its own employees.

Processing

Ore extracted from the pit is transported in 100 tonne capacity haulage trucks, which feed directly into the gyratory primary crusher with dimensions of 42" x 65". The crusher has nominal capacity of 900 t/h. The crushed product is then transported on conveyor belts to a stockpile with a capacity of 6,000 tonnes.

Two feeders beneath the stockpile deliver the ore onto a conveyor belt which feeds the secondary crushing circuit. The ore is screened and the screen undersize (minus 0.5 inch) reports to the final product, while screen oversize is fed to two parallel secondary crushers.

Product from the secondary crushers is transported on conveyor belts to the tertiary crushing circuit, which consists of three tertiary crushers in parallel operating in closed circuit with screens. The minus 0.5 inch undersize from the screens is delivered to the leach pad.

As noted above, the crushing circuits are presently being modified to deliver a finer product.

Product from the crushing plant is transported to the leach pad on overland conveyors and deposited on the pad with a stacker, forming lifts between 8 m and 12 m in height. A bulldozer is used to level the surface of each lift. The irrigation pipelines are then installed to distribute the leach solution over the entire surface of the lift.

Alio Gold has constructed the leach pad and has six different phases for depositing, based on the permits granted by the Mexican Environmental Agency (PROFEPA, Procuraduría Federal de Protección al Ambiente).

The 0.05% sodium cyanide leach solution with a pH of 10.5 to 11, flows downward through the crushed ore, dissolving the precious metals. The solution percolates to the bottom of the lift and is collected in the channel that carries the pregnant solution to a storage pond, from which it is pumped to the gold recovery plant. The gold contained in pregnant solution is adsorbed in the carbon columns.

The gold recovery operation comprises two adsorption-desorption-recovery ("ADR") plants with a total of three parallel sets of carbon columns with a total feed capacity of 1,475 m³/h (6,500 US gpm) of pregnant solution.

Barren solution exiting the ADR plant flows to a second storage pond where fresh water and sodium cyanide are added, before the solution is pumped back to the leach pad.

A new stripping circuit with a capacity of 5.5 tonnes of carbon has been added to the process. In March, 2017, this new circuit started full operations. At the time of the San Francisco Technical Report, the target was to improve the stripping efficiency to an average of 95%.

In March, 2017, Alio Gold initiated a process to separate the drainage solution from old leach pads (Phases 1 and 2) in a parallel intermediate solution process and recirculate this drained solution continually until it is enriched enough to process (minimum average head grade of 0.13 ppm). Additional infrastructure was added in order to process the 8,000 m³/d recirculated from the old leach pads.

An additional carbon tank with a capacity of 6 tonne of activated carbon (similar at the existing ones in ADR Plant #2) for capturing the gold solution drained from old phases has been added to the circuit.

In the first quarter of 2017, Alio Gold implemented a number of operational changes to the heap leach and crushing circuits as described above and improved overall gold recovery. Metallurgical test work indicated that recovery would be improved with the proposed modifications to the crushing circuitry described above.

Capital and Cash Costs

Capital Expenditures

Future capital expenditures over the mine life were estimated to total US\$70 million at the date of the San Francisco Technical Report, as shown in Table 1-4.

Table 1-4
Estimated Future Capital Expenditures (US\$M)

Sustaining Capital Expenditure	2017	2018	2019	2020	2021	2022	2023	2024	LOM
Equipment	0.5	1.4	1.3	1.3	1.3	1.3	-	-	7.2
Leach pad	3.4	2.6	2.6	2.6	2.6	-	-	-	14.0
Other	4.3	-	-	-	-	-	-	-	4.3
Total	8.2	4.0	4.0	4.0	4.0	1.3	-	-	25.5
Expansionary Capital Expenditure									
Pre-stripping	4.3	20.5	13.3	-	-	-	-	-	38.0
Crushing updates	2.1	2.6	0.2	-	-	-	-	-	4.9
Power upgrade	1.5	0.5	-	-	-	-	-	-	2.0
Total	7.8	23.6	13.5	-	-	-	-	-	44.9
Total Cost Expenditure	16.1	27.6	17.5	4.0	4.0	1.3	-	-	70.4

Sustaining capital expenditure includes equipment for crushing and conveying requirements, the continued expansion of leach pads for production purposes, and miscellaneous process equipment and plant improvements to generate efficiencies.

Expansionary capital expenditure includes pre-stripping to provide access to additional ore, crushing upgrades to enable finer crushing of ore to improve recoveries, power upgrade to provide more main power to the crushing circuit and enable removal of the diesel generating plant.

Closure and reclamation costs were estimated to be US\$8.0 million at the date of the San Francisco Technical Report. This amount includes physical reclamation and payments to employees. This cost is not included in the capital estimates.

As at the date of the San Francisco Technical Report, Micon had reviewed Alio Gold's estimate of the future capital expenditures for the San Francisco Project and regards it as reasonable.

Cash Operating Costs

As at the date of the San Francisco Technical Report, Alio Gold's projected production and average cash cost per ounce of gold from 2017 to 2024 was estimated to be as shown in Table 1-5:

Table 1-5

Estimated Future Production and Cash Costs (US\$)

Total	2017	2018	2019	2020	2021	2022	2023	2024	LOM
Ore mined	8.0	8.0	8.0	8.0	8.0	8.0	1.2	-	49.4
Waste mined	17.6	24.6	27.6	34.7	31.9	34.5	2.2	-	173.0
Pre-stripping mined	2.8	12.0	7.8	-	-	-	-	-	22.5
Total mined	28.3	44.6	43.4	42.8	39.9	42.5	3.4	-	245.0
Strip ratio (Incl. pre-stripping)	2.5	4.6	4.4	4.3	4.0	4.3	1.8	-	4.0
Ore grade	0.513	0.561	0.620	0.576	0.578	0.601	0.335	-	0.539
Ounces deposited	131,820	144,919	160,167	148,600	149,227	155,158	86,424	3,382	979,698
Recovery LOM (includes dilution factor of 3%)									70.7%
Ounces produced from New Ore loaded									692,710
Residual leaching production									28,109
Total ounces produced	92,135	104,922	112,984	108,518	110,294	109,638	71,225	11,103	720,819
Cash cost per ounce (US\$)	(900)	822	852	968	952	1,012	691	1,200	900

As at the date of the San Francisco Technical Report, Alio Gold's estimate of its life-of-mine production was between 670,000 and 720,000 ounces of gold at cash costs of US\$900 to US\$950 per ounce of gold. Cost per ounce of gold quoted is net of by-product credits.

As at the date of the San Francisco Technical Report, Micon had reviewed Alio Gold's operating cost forecast for the life of the San Francisco Project and regarded them as reasonable.

Economic Analysis

Alio Gold continues to meet the requirements necessary to be considered a producing issuer, according to the definition contained in NI 43-101.

As at the date of the San Francisco Technical Report, the investment of an incremental US\$45 million during 2017-2019 was expected by Alio Gold to generate an additional 360,000 gold ounces, compared to the estimates in the prior technical report. Alio Gold expected the US\$38 million in capital stripping to provide access from the current phase 5 through to phase 8 of the San Francisco pit and phase 2 of La Chicharra pit, for a combined expected increase of approximately 265,000 ounces. The US\$5 million investment in crusher upgrades was expected to increase recoveries.

Closure and reclamation costs were estimated to be US\$8.0 million. This amount includes physical reclamation and payments to employees. These costs were not included in the economic analysis as they did not vary materially between alternate mine life scenarios.

The Company proposes to fund incremental capital expenditures and reclamation costs from existing capital resources and cash generated from operations.

The expansionary capital expenditure was intended to be phased smoothly over 2017-2019, and as a result the updated LOM did not significantly depart from the 2016 technical report cash flows during the investment period. The planned capital investments were expected by Alio Gold to generate an additional US\$85 million in after tax free cash flow, compared to the economic projections contained in the 2016 technical report.

Update on the San Francisco Property

On August 10, 2018, the Company disclosed scientific and technical information in respect of the San Francisco Property that supersedes the San Francisco Technical Report in certain respects. For further information please see the news release disseminated by the Company on August 10, 2018 entitled “*Alio Gold Reports Second Quarter 2018 Results*” and available on SEDAR (www.sedar.com), which was reviewed and approved by Jorge Lozano, a “qualified person” as defined by NI 43-101. The Qualified Persons responsible for the San Francisco Technical Report have not reviewed or approved of the Update on the San Francisco Property. The following is a summary of the contents of the August 10, 2018 news release:

In May 2018, the Company completed an updated resource block model for the San Francisco Property in Sonora, Mexico. The Mineral Reserve estimates at San Francisco from April 1, 2017 was updated as of July 1, 2018 utilizing the latest available information, including mining depletion over the period and infill and grade-control drilling carried out as part of the mining operations during the period. Mining depletion of Mineral Reserves was partly offset by expansion of the reserves in Phases 6 through 9 of the San Francisco Pit. Total proven and probable mineral reserves totaled 854,472 ounces of gold (55.5 million tonnes at 0.49 g/t) as of July 1, 2018, an approximate decrease of 74,228 ounces of gold or 8% from April 1, 2017.

Updated San Francisco Reserves and Resources as of July 1, 2018

	Proven			Probable			Proven & Probable		
	Metric Tonnes	Au g/t	Contained Au Ounces	Metric Tonnes	Au g/t	Contained Au Ounces	Metric Tonnes	Au g/t	Contained Au Ounces
San Francisco	17,757,023	0.518	273,741	23,359,785	0.540	405,239	41,116,808	0.514	678,980
La Chicharra Pit	5,328,803	0.522	89,489	1,835,220	0.437	25,804	7,164,023	0.501	115,292
Total	23,085,826	0.489	363,230	25,195,005	0.532	431,043	48,280,831	0.512	794,272
Low-grade stockpile	7,199,000	0.260	60,200	-	-	-	7,199,000	0.260	60,200

	Measured			Indicated			Measured & Indicated		
	Metric Tonnes	Au g/t	Contained Au Ounces	Metric Tonnes	Au g/t	Contained Au Ounces	Metric Tonnes	Au g/t	Contained Au Ounces
San Francisco	33,041,153	0.547	580,545	38,485,816	0.557	688,856	71,526,969	0.552	1,269,403
La Chicharra Pit	6,674,718	0.550	118,028	6,019,509	0.500	96,766	12,694,227	0.526	214,794
Total	39,715,871	0.547	698,574	44,505,325	0.549	785,621	84,221,196	0.548	1,484,197

	Inferred		
	Metric Tonnes	Au g/t	Contained Au Ounces
San Francisco	1,725,608	0.528	29,293
La Chicharra Pit	222,238	0.462	3,301
Total	1,947,846	0.520	32,594

⁽¹⁾ Figures may not total due to rounding

San Francisco Mine: Reserve and Resource Reporting Notes as of July 1, 2018:

1. All Mineral Reserves and Mineral Resources have been calculated in accordance with the standards of the Canadian Institute of Mining, Metallurgy and Petroleum and National Instrument 43-101, or the AusIMM JORC equivalent.
2. All Mineral Resources are reported inclusive of Mineral Reserves.
3. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability.
4. Mineral Reserves are estimated using appropriate recovery rates and US\$ commodity prices of \$1,250 per ounce of gold.
5. Mineral Resources are estimated using US\$ commodity prices of \$1,350 per ounce of gold.

For further information, please see the Company's news release dated August 10, 2018 and the annual Management Discussion and Analysis for the Company's financial year ended December 31, 2018, available on SEDAR at www.sedar.com or on the Company's website at www.aliogold.com.

Florida Canyon Gold Mine

Introduction and Technical Information

The following summary is derived from the NI 43-101 technical report entitled “*NI 43-101 Technical Report Life of Mine Plan and Mineral Reserves for the Florida Canyon Gold Mine Pershing County, Nevada, USA*”, dated February 8, 2019, with an effective date of November 1, 2018 (the “**Florida Canyon Report**”), prepared by SRK Consulting (US) Inc. (“**SRK**”). The Qualified Persons responsible for the Florida Canyon Report are Allan V. Moran, CPG, Timothy Carew, M.Sc., P. Geo., Kent Harley, PE, Justin Smith, PE, SME RM, Jeffrey Woods, SME RM, Mark Willow, M.Sc., C.E.M., SME RM, and Thomas Bagan, PE, MBA, SME RM. The Florida Canyon Report is available on the Company's website (<http://aliogold.com/>) and on the Company's profile on SEDAR (www.sedar.com).

Property Description and Location

The Florida Canyon Mine is located about 42 miles south of Winnemucca, Nevada, just off Interstate 80 (I-80) at the Humboldt exit (Exit 138). Access to the Florida Canyon Mine offices is from the Interstate at the Humboldt exit, proceeding to the security gate, less than one mile. The leach pad, plant, and offices are visible east of the Interstate. The mine is partially visible east of the leach pad area. The pits, waste dumps, and facilities are in Sections 1, 2, 3, 10, 11, and 12 of T31N, R33E and Sections 34 and 35 of T32N, R33E, Mount Diablo Base & Meridian, Pershing County, Nevada. The approximate location of the Florida Canyon deposit is longitude 118° 14' W and latitude 40° 35' N.

The Florida Canyon Mine is an operating open pit and heap leach gold recovery mining operation 100% owned by the Company through its subsidiary Florida Canyon Mining, Inc. (“**FCMI**”). Florida Canyon Mine's production history dates to 1986. Following a rehabilitation period, the mine re-started production in April 2017 and achieved commercial production in December 2017. FCMI is a 100% owned subsidiary of Alio Gold. Alio Gold acquired FCMI through its acquisition of Rye Patch Gold Inc on May 27, 2018.

The land package owned or leased by FCMI covers a total of 29,370 acres (including Alio Gold's adjacent Standard Mine Project, which is not included in the Florida Canyon Report). Fee lands total 5,520.4 acres, while 19 patented claims total 359.9 acres. FCMI maintains 877 unpatented claims that total 23,875 acres. Two patented claims are also leased. The fee lands and patented claims, and most of the unpatented claims, are surveyed. The Florida Canyon Report only considers the Florida Canyon area.

Mineral titles are held by a combination of unpatented mining claims, patented mining claims (fee owned lands), fee-simple owned lands, and two leased patented mining claims.

Royalty agreements affecting the project are listed in Table 1-2. All material processed at the Florida Canyon Mine is subject to three royalties: a 2.5% NSR royalty payable to Able and York International Corporation, LLC; a 3.25% royalty payable to Maverix Metals Inc, and the 10.0% McCullough (formerly “**ASARCO**”) royalty area of the Florida Canyon deposit as summarized in Table 1-2. Holding costs for the entire land package of patented claims, unpatented claims and fee lands are summarized in Table 1-1.

Table 1-1: FCMI Land holding costs

Property	Annual Cost (\$)	Royalty
Unpatented Claims	145,144	
Patented Claims	294	
Fee Lands	5,498	
Auramet Trading LLC		3.25% NSR
Ranleigh International		2.50% NSR
McCullough		1.00% NP
Total	150,936	

Source: Mine Development Associates (“MDA”), 2017

Table 1-2: Property royalties

Date	Recording Date	Document No.	Document Title	Obligee	Rate	Project
11/18/2015	12/23/2015	494163	Assignment of Royalty Interest	Able & York International, LLC	2.5% NSR	FCMI
10/4/2013	10/8/2013	485690	Memorandum of Net Smelter Returns Royalty Agreement	Maverix Metals Inc.	3.25% NSR with allowable deductions	FCMI (ALL) SGMI

Source: MDA, 2017

Additionally, both the Bureau of Land Management’s (“BLM”) 43 CFR § 3809 and State of Nevada’s mine reclamation regulations (NAC 519A) require closure and reclamation for mineral projects, and a reclamation permit must include a financial surety to ensure that reclamation will be completed. FCMI has a reclamation surety to fund short-term closure and reclamation of the disturbance associated with mining operations and is currently permitting for reclamation under the state Reclamation Permit #0126, and by the BLM under approval of APO 20 and the FCMI APO 20 EA.

SRK is not aware of any known environmental issues that could materially impact FCMI’s ability to extract the mineral reserves. However, at least one environmental issue is significantly relevant to the operations and merits inclusion herein. Identified during routine site monitoring in 2000, the migration of nitrate from beneath the Florida Canyon HLP has been an issue with the Nevada Division of Environmental Protection – Bureau of Regulation and Reclamation since that time. Several Findings of Alleged Violation and Administrative Orders have been issued on this matter. A trust fund has been established to financially deal with this issue.

With respect to required permits and their status, SRK was provided a comprehensive list of current authorizations, as this is an established, operating mine in a jurisdiction that is regulatorily advanced and enforced. A review of the permits indicated that FCMI is fully permitted for the current operations, though several minor “expired” permits are undergoing renewal as of the publication of the Florida Canyon Report. FCMI also has water rights and appropriations, as well as monitor well waivers issued by the Nevada Division of Water Resources for 25 production and monitoring wells at both mines.

Accessibility, Climate, Physiography, Local Resources and Infrastructure

Florida Canyon Mine year-round access is available via I-80, with numerous small towns close by. Winnemucca, a city of 8,000 residents, is 42 miles northeast of the Florida Canyon Mine and is a source for labor, fuel, groceries, accommodation, and aircraft services. Lovelock, a city of 1,900 residents, is 31 miles southwest along I-80 and is also a source for labor, fuel, groceries, and accommodation. The major city of Reno is 125 miles southwest via I-80.

The climate in the project area is classified as semi-arid, characterized by low rainfall, low humidity, and relatively large annual and daily temperature ranges. Bright sunny days and cool clear nights frequently occur. Average temperatures range from the 30s (°F) in January to the 70s (°F) in July. Winter minimum temperatures are generally

in the teens (°F), and summer maximums in the 90s (°F). Average annual precipitation for 1935 through August 2009, obtained for the nearby Rye Patch Dam weather station from the Western Regional Climate Center, has been 7.8 inches, with most of the precipitation falling as snow in the winter months. The minimum annual precipitation was 3.3 inches, and the maximum was 16.2 inches over this period.

Florida Canyon Mine is in the northwest portion of the Great Basin and on the western flank of the Humboldt Range. The terrain is a series of alternating mountain ranges and sagebrush covered valleys, with the mine located in the Basin and Range physiographic province. Elevations range from 4,200 ft near the plant and base of the leach pad to over 6,000 ft to the east. Star Peak is located to the southeast of the mine with an elevation approaching 10,000 ft.

History

Gold was discovered in 1860 in Humboldt Canyon, which led to the organization of the Imlay Mining District. Mining in the district was limited until 1906 when the Imlay Gold Mine and the Black Jack Mercury Mine were discovered. The most productive mine in the district was the Standard Mine which produced more than \$1M in gold and silver between 1939 and 1949. The Valerie fluorospar deposit near the head of Black Canyon produced about 723 tons of 44% CaF₂.

In 1969, Homestake Mining Company obtained a lease on property in the Florida Canyon area. Seven widely spaced rotary holes were drilled with marginal results, and the property was dropped. Cordilleran Explorations (“**Cordex**”) next leased the property between 1972 and 1978. A comprehensive program of geologic mapping, geochemical sampling, and trenching was completed. A total of 25 of 37 drill holes completed were in a mineralized zone referred to as the “West Trend”, on the site of the present-day Florida Canyon Mine. When Cordex dropped their lease in 1978, Flying J Mines carried out a limited heap leach operation on the “West Trend” material.

Between 1969 and 1982, three major mining companies explored the property and chose not to proceed with development of the deposit. For example, during 1980 and 1981, ASARCO completed a drill program of 69 rotary holes that significantly expanded the known mineralization. ASARCO dropped its interest in the property, except for a portion of Section 11, where a 1% NP royalty, now known as the McCullough royalty, remains in effect.

In 1982, Montoro Gold Company, a subsidiary of Pegasus Gold Corporation (“**Pegasus**”), acquired the property. Montoro began an aggressive program to expand resources and enlarge the property position. Detailed geologic mapping and geochemical sampling led to discovery of other anomalous gold occurrences throughout the property. By the end of 1985, 241 drill holes were completed totaling 87,569 ft in the “West Trend” and adjacent deposits. In addition, 46 holes were completed on other exploration targets to the south and east.

In November 1985, a decision was made by Pegasus to put the property into production. Permitting and project development followed with the start-up of a new mine in 1986. Since the original permit was granted in 1986, a total of 16 amendments to the operating plan have been made. Work on processing facilities began in May 1986, with the first ore crushed and delivered to the leach pad in November 1986. During the years that followed, additional drilling added resources to the project. Most of the known oxide mineralization in the Florida Canyon area has been explored. However, new areas in the south of the current operation present opportunities for future development of the Standard Mine mineralized zones. Pegasus operated the Florida Canyon Mine until January 1998.

In January 1998, Pegasus was unable to service \$213M in debt and filed for bankruptcy under Chapter 11 of the US Bankruptcy Code. Under two separate plans of reorganization approved by major creditors and confirmed by the court, certain former Pegasus affiliates emerged from bankruptcy protection during February 1999. The first involved the reorganization of Pegasus Gold International Inc. (the international exploration affiliate of Pegasus), which was reincorporated as Apollo Gold Inc (“**Apollo**”). Apollo became the holding company for three former Pegasus subsidiaries, including FCMI.

Apollo was acquired during the second quarter of 2002 by Nevoro Gold, Inc. (“**Nevoro**”). Nevoro became a publicly traded company on the Toronto Stock Exchange and subsequently changed its name to Apollo. Apollo operated the Florida Canyon Mine and the Standard Mine until Jipangu International acquired the Florida Canyon Mine and Standard Mine properties on November 18, 2005. Jipangu International operated the properties through its wholly owned subsidiaries FCMI and SGMI.

In September 2015, Jipangu became majority owned by Admiral Financial Group. Rye Patch Gold agreed to acquire the Florida Canyon Mine property and related assets from Admiral Financial Group and Jipangu International through the acquisition of their three subsidiary companies, FCMI, SGMI, and Jipangu Exploration in consideration for payment of \$US15.0M and 20 million common shares of Rye Patch Gold at closing. Rye Patch Gold agreed to assume certain liabilities of the acquired companies to a maximum aggregate amount; all obligations and payments have subsequently been satisfied by Alio since the acquisition of Rye Patch Gold.

In mid-2016, Rye Patch Gold resumed open pit mining operations and heap leach gold recovery. Rye Patch Gold declared commercial production in December 2017. In May 2018, Alio Gold acquired Rye Patch Gold by way of a Plan of Arrangement transaction and now owns 100% of the Florida Canyon property, which includes the Florida Canyon Mine and the Standard mines, operated by FCMI and SGMI, respectively.

A publicly stated mineral resource estimate was prepared for Rye Patch Gold by Mine Development Associates, dated January 27, 2017 (MDA, 2017). That stated mineral resource is presented in Table 1-3 and is considered a historical mineral resource. It is presented here for historical purposes only. The below stated historical mineral resources are not reliable or relevant; they are historically reported information only.

Table 1-3: Historical Mineral Resource – Florida Canyon – MDA, 2017

Mineral Resource	Tons (000s)	Grade (oz/ston Au)	Pit Shell Price	Cut-off Grade (oz/ston Au)
Measured and Indicated	84,202.1	0.013	\$1216	0.006
Inferred	350.8	0.015	\$1216	0.006

Source: MDA, 2017; formatted by SRK, 2018

Geological Setting and Mineralization

The Florida Canyon Mine area is situated in northwestern Nevada within the Basin and Range physiographic province, which is typified by a series of northward-trending elongate mountain ranges separated by alluvial valleys. The region was subjected to three major pre-Cenozoic periods of deformation, characterized by large-scale folding and thrust faulting, with intervening periods of substantial carbonate and clastic sedimentation. The late Devonian to early Mississippian Antler orogeny shed sediment westward into a marine transgressive environment. At the end of the Paleozoic era (late Permian) and into the early Triassic period, the Sonoma orogeny resulted in deep-water strata thrust eastward tens of miles over rocks of the Antler highlands. During this period, thick sequences of greenstone and rhyolitic flows, tuff, and breccia of the Koipato Group were deposited in a shallow marine setting. Continuing sedimentation in the Triassic period was characterized by shallow-water marine carbonate deposition (Prida and Natchez Pass formations) grading westward to deeper-water clastic sedimentation, predominantly mudstones. During the late Triassic to early Jurassic periods, sediments of the Grass Valley Formation, grading from fluvial sandstone in the east to fine-grained mudstone in the west, were unconformably deposited over the Prida and Natchez Pass formation.

The last major compressional event was the Sevier orogeny, during the late Triassic period. During this time, sandstone and mudstone of the Grass Valley Formation were weakly metamorphosed to quartzite, argillite, and slate, with a north-northeast metamorphic foliation. The Grass Valley Formation is host to gold mineralization at Florida Canyon. Cenozoic volcanism and later Basin and Range faulting have complicated and, locally, obscured the older structural features.

The Florida Canyon area is dominated by a major regional structural zone, termed the Humboldt Structural Zone, which is interpreted to be a 200-km wide north-easterly-trending structural zone with left-lateral strike slip movement. One of the principal structural features within the Humboldt Structural Zone is the Midas Trench lineament, which abruptly terminates the north end of the Humboldt Range. Mineralization and alteration in the Florida Canyon Mine is localized where the Midas Trench lineament is intersected by the north-south trending Basin and Range frontal faults on the northwest side of the Humboldt range.

There is a strong N30°E to N50°E structural fabric prevalent in and adjacent to the Florida Canyon Mine, as evidenced by the alignment of quartz veining, shear zones, and well-developed joint sets. The north to north-northeast trending

Basin and Range fault system limits the western near-surface part of the Florida Canyon Mine oxide gold mineralization.

At Florida Canyon, the location and geometry of the mineralized bodies are a result of structure and the presence of favorable silty argillite, quartzite, and limestone host rocks relative to structural conduits. The higher-grade zones of mineralization tend, in general, to follow the high-angle, northeast and northwest-trending fault and shear zones. The more moderate- or lower-grade zones are controlled by favorable host rocks more distal to feeder structures.

Hypogene mineralization at Florida Canyon consists of native gold and electrum associated with quartz, iron oxides, and minor pyrite, marcasite, and arsenopyrite. Quartz as veins, veinlets and silicification of host rocks is the major gangue mineral. Secondary minerals identified in the Florida Canyon deposits to date include gypsum (likely remobilized from the Grass Valley Formation), alunite, barite, native sulfur, calcite, dolomite, fluorite, anhydrite, pyrrhotite, pyrrhotite, and stibnite. There are two types of hydrothermal epithermal quartz veins at Florida Canyon. The most important are vein swarms and stockworks that contain most of the gold mineralization. These veins are often randomly oriented, though generally follow a north-northeast trend and are characterized by colorless, euhedral to subhedral quartz, or banded chalcedonic white to colorless quartz that contains limonite after pyrite.

The second type of hydrothermal quartz veining occurs as large, through-going, banded fissure veins that follow the original north-northeast structural fabric. These veins are interpreted to represent a late hydrothermal event that overprinted the earlier episode of gold-bearing quartz veining and stockworks. These veins are characterized by bands of coarse, prismatic quartz alternating with bands of cherty chalcedony and only occasionally contain economic gold grades. Milky white bull-quartz veins, considered to be metamorphic in origin, may also be present in the mineralized zones, but they are not gold bearing. Locally, pervasive silicification is generally associated with areas of high-density quartz veining and/or intense hydrothermal brecciation. Sericite, adularia, clay, and chlorite occur locally in quartz veins, breccia matrix, and on fracture surfaces. There is extensive argillization and bleaching throughout the deposit area, with pervasive hematization that is largely confined to silty units marginal to the bleached areas.

Exploration Programs

The primary period of historical exploration, through the 1980s and 1990s was by RC drilling by two companies, Pegasus (2445 drillholes), and successor Apollo (987 drillholes up through year 2004). Jipangu was the successor owner after Apollo and they drilled an additional 684 drillholes from 2006 through 2014.

Drilling was the primary method of historical exploration as alteration and low-grade gold mineralization outcropped, and similarly was encountered in shallow drilling. There are 4,273 historical RC/rotary drillholes for 1,905, 082 ft and 55 historical core holds for 34,522 ft. Since the Florida Canyon Gold Mine is an active mine, ongoing exploration is primarily targeted as in-fill and peripheral drilling to known mineralized areas. Grassroots exploration targets exist outside the known mineralized areas.

Drilling

FCMI drilled 18 RC holes (FCR-010-001 to FCR-017-018) in 2017, for 7,130 feet, ranging from 150 to 890 ft in drill depth. Three were vertical holes, and the remainder were angle holes predominantly oriented to the east or southeast at -45 to -70° angles, intended to cross the primary mineralized structural control trends.

Total project drilling in the database is 4,340 drillholes for 1,946,804 ft, completed from 1969 through 2017; most of the drilling occurred in the 1980s and 1990s as RC drilling. Of the total number of drillholes, there were 55 historical core holes for 34,522 ft. Thus, the eighteen 2017 in-fill RC drillholes have added additional information for definition of local mineralization continuity but have minimal impact on the total drillhole database and the mineral resource.

The drilling database, including the 2017 drillholes that were drilled after the previous published Mineral Resource by MDA in 2017, was provided by FCMI, and used by SRK for the current resource estimation.

The 2017 RC drilling was conducted by HD Drilling LLC, an independent contractor located in Winnemucca, Nevada. A majority of the total project drilling was conducted on a nominal 100-ft drillhole collar spacing.

SRK did not observe the drilling procedures for the 2017 drilling; however, it was described by FCMI as standard RC drilling, and the contractor is known to SRK. SRK believes the drilling procedures employed by FCMI are appropriate and follow industry standard practices.

RC drilling is down-hole-hammer wet-drilling with water injections to recover cuttings to a rotary splitter for sample collection. Drill diameter varies from 5 to 6 inches, depending upon the drill bit used.

Collar locations are determined with FCMI mine surveying equipment, by the Mine Engineering department.

RC sampling was done by collection of a split from the rotary splitter at the rig, bagging and labeling the sample, which typically will range from 10 to 15 pounds in weight. Samples are collected at five-foot drill intervals by the drilling contractor. Small samples of the cuttings are collected for geologic logging by FCMI geologists.

Downhole surveys for hole deviation were conducted by independent contractor, IDS LLC, using a surface recording gyro instrument, which is a non-magnetic method that determines deviations downhole relative to a surface defined reference azimuth. IDS has an office in Elko, Nevada and has been providing borehole deviation surveys to the mining industry for decades. Surveys at Florida Canyon were performed after completion of the drillholes.

SRK has reviewed the 2017 drilling results and considers them consistent with historical drilling. The 2017 drilling procedures are sufficient to include these holes in the drillhole database for use in mineral resource estimation.

SRK has also reviewed previous reports and internal documents on the historical drilling that comprises the drillhole database and concludes the historical drilling procedures at Florida Canyon Mine have been conducted by industry standard procedures and are adequate for use in mineral resource estimation.

SRK concludes that historical and current drilling at Florida Canyon Mine has been of sufficient type, orientation, and density of drill spacing to adequately define the gold mineralization at Florida Canyon Mine.

Sampling, Analysis and Data Verification

This section is applicable to the sample preparation, analysis and security of just the drilling samples of the 18 drillholes completed by FCMI in 2017 and the data generated since the last Mineral Resource estimate in 2016.

Drill samples are collected at the drill rig by the drill contractor and stored temporarily at the drill rig until delivered to FCMI geology staff. Samples collected at the drill rig and transferred to FCMI are maintained securely within the confines of the FCMI mine site, until picked-up by the contractor lab for transportation to the lab for analysis. For the 2017 drilling the samples were collected at the mine site by AAL, of Sparks Nevada.

Samples were dried, crushed, and pulverized at AAL in Sparks, Nevada. AAL is an accredited analytical lab. AAL has been FCMI's primary analytical lab since 1990, and is a reputable Nevada based analytical lab servicing the mining industry. AAL is an ISO/IEC 17025:2005 accredited analytical lab and is Nevada Department of Environmental Protection approved.

Standard preparation procedure is to crush the entire dried sample to -3/4-inch size and split in a riffle splitter to produce several pounds of coarse crushed material for further crushing, and pulverization. The pulverized sub-sample is used for analysis. The pulps are retained for further use or check assays if deemed necessary, and eventually archived. Coarse reject material is typically not saved. Sample analytical procedures used are fire assay lead-collection methods for a 30-gram sample size, with ICP-AES determinations; having a 0.03 ppm or 0.001 oz/ston detection limit. Analytical certificates from AAL provide the gold assays in both ppm and equivalent oz/ston values. The drillhole database used gold values as oz/ston Au.

Quality assurance ("QA") and quality control ("QC") procedures are in place at AAL and include insertion of sample blanks, duplicates, and Standard Reference Materials (SRM or standards) into each batch of drill samples collected at the drill rig and transported to the lab. The QA/QC program consists of inserting a minimum of one analytical standard, one blank, and at least four sample duplicates for every batch of 50 samples assayed. Sample duplicated are repeat analysis of a second split of the coarse reject material. The results of the QA/QC samples are examined by AAL and FCMI to determine the pass or fail of a particular batch of samples. There were no issues identified in the QA/QC assay results from the eighteen holes drilled in 2017, consisting of 1,426 five-foot drill samples.

The sample preparation and analytical procedures used by AAL are commonly used by most analytical labs. SRK is of the opinion that the sample preparation and analytical procedures used are adequate to define the gold mineralization at Florida Canyon Gold Mine and are common industry practice. SRK has reviewed the QA/QC procedures in place and the results and concludes that the program in place is adequate to verify the accuracy and precision of the analytical data that is the foundation of the drillhole database.

Data Verification

SRK's data verification process consisted of the following:

- Visual examination of the lithologies, alteration, and mineralization as exposed in the active mining areas in relation to geologic data in the database;
- Comparison of the 2017 drilling data with surrounding drill hole data;
- Comparisons of the current geological model with the previous geology model in 3-D visualization software; and
- Comparison of analytical data from AAL assay certificates with the current FCMI drillhole database.

Procedures

A site visit was conducted on July 12, 2018, including a visit to mining areas and exposures in pit walls for the Central, and Radio Tower pit areas. Mineralized and altered Grass Valley formation siltstone and argillite were observed, along with mineralized structures, quartz veining, silicification, hematite alteration and clay alteration; providing an understanding of the lithology and alteration coding used in the drillhole database.

Upon import into Leapfrog® Geo software, the previous drilling and the new 2017 drilling were visually compared. The new drilling mineralized intervals for all 18 holes average 0.033 oz/ston; higher grade than the existing mineral resource average grade of 0.012 oz/ston, but in line with surrounding drillholes, providing improved continuity to a higher-grade area.

The current geological model compares reasonably well visually to the previous model, with the enhancement of lithology and alteration solids defined directly from the drill data, avoiding some of the sectional rectification problems previously noted.

The previous mineralized shape used to confine mineralization compares with the current mineralized shape, with enhancements along preferred mineralized structural trends providing more continuity of mineralization along the east-northeast to northeast structural fabric. Mineralized intervals were visually checked against logged drillhole lithology and alteration codes, and appears reasonable; for instance, as with higher grades generally correlating with silicified Grass Valley Formation lithology.

For the 2017 drilling, SRK examined copies of the assay certificates for 27% of the assays, or 369 individual five-foot assay intervals, selected randomly, against the drillhole database assays. No errors were found, and only nine rounding differences at 0.001 opt.

Limitations

SRK did not complete an audit or verification of the entire drillhole database, as it was deemed not necessary. Previous third-party reviewers have completed more in-depth audits of the various drilling programs over the life of the property, comparisons of the various analytical labs used, and audits of the database. SRK has reviewed the previous work and found no significant issues or concerns that would materially affect the mineral resource.

SRK notes that the resource cut-off grade of approximately 0.006 oz/ston Au is nearing the reliable assay detection limit for gold by analytical labs. AAL has a lower detection limit of 0.001 oz/ston gold for the assay method currently in use. And AAL assays accounts for approximately two thirds of the drillhole database. The cut-off grade is at an adequate buffer above the assay lower detection limit of 0.001 oz/ston; however, any future desires to lower the cut-off grade should be done with caution, as values in the 0.001 to 0.003 oz/ston gold range may not be that reliable or should have a degree of uncertainty applied to them.

Metallurgy

Ore processing and gold recovery operations commenced at Florida Canyon in 1986. Ore was crushed and stacked on lined heap leach pads between 1986 and 2011. The ore was leached with dilute alkaline cyanide solution, and gold and silver were recovered from solution by carbon adsorption and Merrill-Crowe (zinc precipitation) processing methods. In addition, un-crushed run-of-mine (“**ROM**”) material was placed on the heap leach pads and leached between 1989 and 2011. Ore crushing re-commenced in 2016 and continues through the date of publication of the Florida Canyon Report. The mine-to-date overall gold recovery for all materials placed on the heap leach pads at Florida Canyon averaged 67.4% through June 30, 2018. The overall gold recovery between 1986 and 2015 (before re-starting operations) averaged 68.3%.

Owing to co-mingling of process solutions from the crushed and ROM heap leaching operations, it is not possible to estimate the individual gold recoveries from crushed and ROM ore. An assessment of historical column leach testing data and other operating information indicates that the crushed ore gold recovery has varied between 64 and 74%, increasing with finer particle size. ROM ore gold recovery has varied between 50 and 58%.

Historical processing recovery information is relevant to the Florida Canyon Report on mineral reserves as it is used in the pit optimization process to define the pit shell which is the basis for mineral reserves.

Mineral Resource and Reserve Estimates

Mineral Resource Estimate

The mineral resource estimate was conducted by Mr. Timothy Carew, P.Geo., a SRK Principal Consultant, using Geovia GEMS® modeling software for block modeling, Sage2001 for variography and X10-Geo® for statistical analysis.

In summary, SRK:

- Modeled mineralization domains in 3-D, including on the orientation, texture and subsequent continuity of the structures, where applicable.
- Applied high-grade caps determined per estimation domain from log-probability and other analysis methods. Created a block model with block dimensions of 30 x 30 x 20 ft, covering the volume of interest.
- Undertaken statistical and geostatistical analyses to determine appropriate interpolation methods for the mineralized domains.
- Interpolated grades into the block model attributes.
- Visually and statistically validated the estimated block grades relative to the original sample results.
- Reported the mineral resource according to the terminology, definitions and guidelines given in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards (2014).

Upon consideration of data quality, drill hole spacing and the interpreted continuity of grades within the deposit, SRK classified the deposit into “Measured”, “Indicated” and “Inferred” mineral resource categories.

SRK applied basic economic considerations to restrict the mineral resource to material that has reasonable prospects for economic extraction by open-pit and underground mining methods. To determine this, the mineral resource was subject to a pit optimization study using Whittle™ software and a set of assumed technical and economic criteria which were selected based on site experience and benchmarking against similar projects.

Drillhole Database

The drill hole database provided by FCMI consists of 4,286 RC/rotary drill holes totaling 1,912,604.5 ft of drilling and 53 core holes totaling 34,239.5 ft of drilling, for a total of 4,339 holes totaling 1,946,844 ft of drilling. The average drill hole spacing is approximately 100-ft centers for the mineralized areas.

The average assay interval is approximately five feet in length, with samples being assayed at 10 different assay laboratories, including the mine laboratory. More than 67% of the samples have, however, been assayed by AAL.

Samples have been assayed using a fire assay method for all samples and a cyanide soluble gold methodology for selected samples. There is a total of 359,737 assay records in the drill hole database. A total of 12 holes were removed from the database used for estimation purposes. These holes had a single assay interval that was the length of the hole and had been assigned a default ‘place holder’ value of zero.

Table 1-4 : Gold assay statistics by mining area

Mine Area	Count	Min	Max	Mean	StDev	CV	Skewness
All	219567	0	9.480	0.014	0.047	3.43	72.14
Main	64951	0	5.004	0.015	0.043	2.91	38.48
Central	105389	0	9.480	0.014	0.054	3.92	82.93
Central North	8178	0	2.892	0.013	0.048	3.63	35.12
Jasp Hill	10327	0	1.616	0.009	0.026	2.81	28.82
Radio Towers	30722	0	3.484	0.013	0.033	2.56	44.72

Source: SRK, 2018

The coefficient of variation (“CV”) for all areas is high, which is indicative of a highly positively skewed distribution. As well, the mean is typically greater than or equal to the upper quartile, which is another indication of a highly skewed distribution, which is common for gold deposits of this type. Given these indications, a reduction of the CV will be considered necessary – this will be achieved by capping outlier grades and compositing the 5-ft sample lengths to 10-ft composites.

Geological Model

The geological framework for SRK’s resource estimate was generated by SRK geologists, utilizing Leapfrog® implicit modeling software to generate 3-D solids modeling lithology and alteration, as described above. These solids were used to code lithology and alteration integer attributes in the block model, using majority rules assignment, with precedence’s assigned to solids to resolve any overlaps. The July 2018 end of month topographic surface was used as the current topography for modeling purposes. FCMI provided an ‘as-mined’ surface based on previous mining information that was modified by SRK to reflect the most recent production information (blast hole data) as of the July 2018 EOM. This surface was used to locate, and model backfill and dump material in the block model.

A grade shell generated using LeapFrog® implicit modeling software was used to separate populations of grade values and spatially constrain estimated values. Blocks within the shell received estimated values for fire assay gold, if the drillhole data was sufficient, using composites falling within the grade shell. For implicit modeling purposes, the grade shell assay values were capped with generalized values, then composited to 20-ft lengths. The composited values were used to generate meshes around intervals that exceed the respective grade threshold. Structural trends related to mineralization were incorporated to reflect the influence of these structures/trends.

A single gold grade shell at a threshold value of 0.003 oz/ston was built for all areas of the model but was subdivided into three sub-domains based on the orientation of various structural trends that are considered to be associated with mineralization. Statistical analysis of assay data within the grade shells indicate that the grades are similar across the deposit.

Composites were, however, tagged with the sub-domain codes for use in variographic analysis, in consideration of the interpreted orientation differences. The 0.003 oz/ston grade shell, with sub-domains. The grade domain grade shells were used to code an integer block model item identifying the domain, in addition to a percentage item storing the percentage of a block falling within the grade shell.

Assay Capping and Compositing

A capping analysis was conducted on AUFA values by domain prior to compositing to determine suitable capping values to minimize the effect of outlier values. A variety of analyses methods were considered, including a ‘metal-at-

risk' approach (this compares the gold metal contribution of each sample to its tonnage contribution as a ratio, with a guidance that the ratio should not exceed 10:1), in conjunction with examination of log probability plots of the domain distributions that identify breaks in the distribution corresponding to high-grade outlier populations.

The capped assay data for AUFA gold was composited as 10-ft equal length composites starting at the DH collar and broken at the 0.003 oz/ston gold grade shell contacts. Any short residual intervals less than 4 ft in length (40% of nominal composite length) created in this process were merged into the previous interval. Composite intervals internal and external to the grade shells were assigned unique identifying rock type codes.

Average density values provided by FCMI were assigned to blocks based on modeled alteration code, which includes codes for surface fill/dump material and alluvium.

Variogram Analysis and Modelling

The spatial continuity of composites within the grade shell domains was investigated through variographic analysis using the SAGE 2001® variography package. Down-the-hole corellograms were calculated to determine appropriate nugget values, in addition to 3-D directional corellograms for use in variogram modeling. The corellogram measures the correlation coefficient between two sets of data, comprising values at the heads and values at the tails of vectors with similar direction and magnitude, and has been found to provide a stable estimate of spatial continuity. For ease of modelling, the correlogram value is subtracted from one and is presented in a similar graphical form to the variogram. In this report the correlograms presented this way are referred to as variograms.

Block Model

A 3-D block model was defined to cover the volume of interest, approximately 2 by 2 miles in plan view and 3,000 ft vertically, and with a block size of 30 x 30 x 20 ft.

Estimation Methodology

Block grades were estimated by domain (grade shell) for AUFA using Ordinary Kriging (OK). The interpolation process utilized 10ft composites tagged with corresponding rock type codes to enable the use of hard boundaries to prevent interpolation across the 0.003 oz/ston grade shell boundary. No restrictions were specified between the sub-domains, as statistical comparisons indicated that the distributions were not markedly different in the sub-domains. Composite tagging also allowed the use of semi-soft boundaries between the high-grade shapes modeled internal to the 0.003 oz/ston grade shell – this method allows the influence of some composites external to the high grade shells to be used within a specified distance tolerance. The interpolations were done in three passes, with progressively larger search distances and with protection of blocks estimated in earlier passes. A Nearest Neighbor gold fire assay block value was also estimated for comparison/validation purposes, using the same estimation parameters as the OK interpolations.

A high-grade search distance constraint was also implemented in interpolation, where more constrained search distances are considered for composites within the initial search ellipsoid that exceed a specified threshold value, as detailed below:

- Domain 1 (NNE) – 10 x 10 x 10 ft with a high-grade threshold of 0.30 OPT
- Domain 2 (MID) – 20 x 20 x 20 ft with a high-grade threshold of 0.25 OPT
- Domain 3 (NE) – 20 x 20 x 20 ft with a high-grade threshold of 0.20 OPT

Blocks were estimated by OK with a minimum of 6 composites and a maximum of 18 and using a block discretization of 3 x 3 x 2.

Given that the percentage of a block within the 0.003 oz/ston grade shell was variable, a final diluted fire assay gold block value was calculated as:

Diluted fire assay gold grade = fire assay gold grade x Gradeshell Percentage/100 The percentage of a block falling external to the grade shell is assumed to be at zero grade.

Model Validations

Model validation was approached through visual and statistical methods. Visual comparison was done on sections and in plan for each area of the deposit. Statistical comparison was achieved using comparative population statistics and swath plots. A visual inspection of the model in plan and section confirmed that grades generally correlate well between the blocks and the composite data in each area.

Statistics by interpolation domain (grade shell) were used to compare the Nearest Neighbour (“NN”) and OK fire assay block grades against each other. The NN interpolation method provides a declustered representation of the sample grades and therefore, the modeled mean grades of any other method should be similar to the mean grade of the NN estimate at a zero-cut-off grade. For fire assay gold, the OK estimates were within acceptable tolerances of the NN; approximately $\pm 2\%$ for each domain. The global mean estimated OK grade at zero cut-off was within $\sim 5\%$ of the NN estimate.

The Florida Canyon Mine mineral resource estimate is within a \$1,350/oz gold sales price pit shape and is reported using the net smelter return cut-off in Table 1-5. Mr. Timothy Carew, P.Geo., an SRK Principal Consultant, conducted the mineral resource estimate, using Geovia GEMS® modeling software for block modeling, Sage2001 for variography, and X10-Geo® for statistical analysis. A standard block model was constructed, using kriging for grade estimation and assignment to the block model.

A swath plot is a graphical display of the grade distribution derived from a series of bands, or swaths, generated in several directions through the deposit. Using the swath plot, estimated grades from the OK model are compared to the distribution derived from the Nearest NN grade model.

On a local scale, the NN model does not provide reliable estimations of grade, but on a much larger scale it represents an unbiased estimation of the grade distribution based on the underlying data. Therefore, if the OK model is unbiased, the grade trends may show local fluctuations on a swath plot, but the overall trend of the OK data should be similar to the NN distribution of grade.

Swath plots were generated along east-west and north-south directions, and for elevation. Swath widths were 150 ft wide for both east-west and north-south orientations, and 60 ft wide in the vertical. Gold grades were plotted by OK (green traces) and NN (blue traces) for all estimated blocks.

Based on the swath plots, there is a reasonable correlation between the modeling methods. The degree of smoothing in the OK model is evident in the peaks and valleys shown in some swath plots; however, this comparison shows a reasonable agreement between the OK and NN models in terms of overall grade distribution as a function of easting, northing, and elevation, with zones of marked divergence restricted to swaths where there are low tonnages (as shown by the block counts – vertical bars on the plots).

Mineral Resource Estimate

Given that process recoveries and costs in the resource model are grade and/or domain dependent, the application of standard cut-off grades for resource reporting purposes is not feasible. The resources are, therefore, reported with respect to a block NSR value which is calculated on a block-by-block basis. The resource is also constrained by an optimized (Whittle™) resource pit, in accordance with the requirement to demonstrate that the defined resources have reasonable prospects of eventual economic extraction, a CIM criteria. All classification categories (Measured, Indicated and Inferred) were considered in the resource pit optimization.

Gold recoveries used in resource estimate were calculated for each block and varied with grade based on the recovery assumptions in the SRK resource report (SRK, 2018a). Additional analysis of recoveries continued in parallel with mine planning subsequent to the release of the resource report. This analysis altered the understanding of the controls on recovery and led to a new recovery projection of 71% for all material types.

The resource pit optimization parameters by mining area are tabulated in Table 1-5. These parameters were also used in the calculation of block NSR values for reporting purposes. Nominal slopes of 45° were utilized for in-situ rock and 37° for fill/dump material.

Table 1-5: Resource pit optimization parameters

Description	Units	Central	Central	North Jasperoid	Main	RT North RT2	RT	
Classification Code	MI&I	1,2,&3	1,2,&3	1,2,&3	1,2,&3	1,2,&3	1,2,&3	1,2,&3
Commodity Selling Price	\$ / oz	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350
Commodity Selling Cost	\$ / oz	\$2.80	\$2.80	\$2.80	\$2.80	\$2.80	\$2.80	\$2.80
Royalty (on NSR)	%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Final Commodity Realized Price (NSR)	\$ / oz	\$1,280	\$1,280	\$1,280	\$1,280	\$1,280	\$1,280	\$1,280
Mining Costs								
Ore – Base Mining Cost	\$ / ston ore	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26
Ore – Haulage Cost	\$ / ston ore	\$0.40	\$0.40	\$0.35	\$0.30	\$0.65	\$0.55	\$0.65
Total ore Mining Cost	\$ / ston ore	\$1.66	\$1.66	\$1.61	\$1.56	\$1.91	\$1.81	\$1.91
Waste – Base Mining Cost	\$ / ston waste	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26
Waste – Haulage Cost	\$ / ston waste	\$0.40	\$0.30	\$0.25	\$0.35	\$0.60	\$0.60	\$0.65
Total Waste Mining Cost	\$ / ston waste	\$1.66	\$1.56	\$1.51	\$1.61	\$1.86	\$1.86	\$1.91
Processing Costs								
Crushing Cost	\$ / ston ore	\$0.95	\$0.95	\$0.95	\$0.95	\$0.95	\$0.95	\$0.95
Processing	\$ / ston ore	\$2.54	\$2.54	\$2.54	\$2.54	\$2.54	\$2.54	\$2.54
G&A – Admin	\$ / ston ore	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50
Total ore PC	\$ / ston ore	\$3.99	\$3.99	\$3.99	\$3.99	\$3.99	\$3.99	\$3.99
Total ore Mining and Process Cost	\$ /ston ore	\$5.65	\$5.65	\$5.60	\$5.55	\$5.90	\$5.80	\$5.90

Table 1-6: Mineral Resource statement, Florida Canyon Gold Mine, Pershing County, SRK Consulting, effective date July 31, 2018

Mining Area	Category	Quantity (ston 000s)	Au Grade (oz/ston)	Au Metal (oz 000s)
Total	Measured	115,817	0.012	1,371
	Indicated	30,652	0.011	339
	Measured and Indicated	146,469	0.012	1,711
	Inferred	1,550	0.014	22
Central	Measured	51,200	0.012	597
	Indicated	10,756	0.011	115
	Measured and Indicated	61,956	0.011	712
	Inferred	560	0.011	0.1
Main	Measured	30,846	0.011	331
	Indicated	10,031	0.010	100
	Measured and Indicated	40,877	0.011	431
	Inferred	521	0.019	10

Mining Area	Category	Quantity (ston 000s)	Au Grade (oz/ston)	Au Metal (oz 000s)
Jasperoid Hill	Measured	5,945	0.011	68
	Indicated	2,255	0.009	21
	Measured and Indicated	8,200	0.011	89
	Inferred	170	0.010	2
Radio Towers	Measured	27,826	0.013	375
	Indicated	7,610	0.014	103
	Measured and Indicated	35,436	0.013	478
	Inferred	299	0.016	5

Source: SRK, 2018

Notes:

1. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that any part of the Mineral Resources estimated will be converted into a Mineral Reserves estimate.
2. Gold recovery is based on a non-linear relationship to gold fire assay grade and is evaluated on a block by block basis in the resource model. To account for this variability, a NSR value was calculated for each block and cut-offs were then applied to the NSR.
3. The resource model was constructed in US units for quantities and grades.
4. Resources are reported using a NSR cut-off grade of US\$3.99/ston for the Central area, US\$4.09/ston for the Central N. and Jasperoid Hill areas, US\$3.94/ston for the Main and Radio Towers areas, US\$4.04/ston for the Radio Towers N. area, and US\$3.99/ston for the Radio Towers2 area. The variable NSR cut-offs reflect differences in haulage cost.
5. Resources in the table above are grouped by major mining area. Central and Central N. were combined, as were all Radio Towers mining areas.
6. Resources stated as contained within a potentially economically minable open pit; pit optimization parameters are: US\$1,350/oz Au, an average Au Recovery of 61% for Radio Towers area and 67% for the Central/Main area, US\$2.80/oz Au Sales Cost, US\$1.26/ston base waste mining cost, variable haulage costs by mining area, US\$3.99/ston base ore processing cost, 45° pit slopes for in-situ rock, and a 37° pit slope for fill/dumps.
7. Numbers in the table have been rounded to reflect the accuracy of the estimate and may not sum due to rounding.

Mineral Reserve Estimate

SRK assisted FCMI with mine planning from 2016 through the present time. In 2017, SRK produced an updated internal LOM plan (SRK, 2017). SRK used standard mine planning processes to establish mineral reserves. Initial inputs were used to define economic pit limits. The assumptions used to define economic pit limits were refined during the development of this reserve estimation, as additional efforts were conducted to develop further understanding of metallurgical recovery for the operation, as well as the impact and sources of dilution.

Key Assumptions, Parameters and Methods

Whittle™ pit optimization software, utilizing the industry standard Lerchs-Grossmann pit optimization algorithm, is used by SRK to perform the pit optimization and determine the economic limit. SRK worked with other consulting team members, outside consulting firms, Florida Canyon Mine team members, and Alio Gold representatives to develop key inputs for the optimization including metal price, metal recovery, pit slope parameters, as well as operating cost and capital cost data.

The deposit hosts a significant number of existing open pits in steep terrain, so mining costs vary based on available access and haulage routes. Therefore, the mine was divided into seven areas: Central, Central North, Jasperoid Hill, Main, Radio Tower North, Radio Tower and Radio Tower Two. Separate mining costs were assigned to each of these areas for mine planning purposes.

SRK used pricing assumptions that were confirmed by Alio Gold. A gold selling price of \$1,250 per troy ounce of gold was applied to all seven areas, as well as the selling cost of \$2.80 per troy ounce of gold and a royalty of 5.01%.

Gold recoveries used in the pit optimization runs were calculated for each block and varied with grade based on the recovery assumptions in the SRK 2018 report on mineral resource. Additional analysis of recoveries continued in parallel with mine planning subsequent to the release of the resource report. This analysis altered the understanding of the controls on recovery and led to a new recovery projection of 71% for all material types, as described in Section 13.5 of this report. Pit optimization is based on the initial variable grade recoveries, while the detailed mine plan and

production schedule utilize the refined recovery number of 71%. This recovery value is higher than the average recovery presented in the resource report.

With the new recovery values, Alio Gold requested that detailed mining planning move forward without running new pit optimizations. Therefore, the results of the current optimization study provide a smaller, lower risk, ultimate pit limit for the reserve estimate.

Geotechnical design criteria for the deposit is provided in Golder's 2016 Geotechnical Memo (Golder, 2016), which includes recommended slopes based on rock types, alteration, and orientation of the highwall. Golder recommends slopes for rock (45°), fill and alluvium (38°), and reduced 35° slopes for non-silicified rock with northwest facing highwalls at an orientation between 305° and 355°. Additionally, Golder requires a 50ft step-in at the base of fill rock.

A significant number of existing open pit excavations are available for observation and in general, provide sufficient information for geotechnical characterization of the deposit for this level of study. Most of the pits occur in areas with significant existing exposure due to mining, except for one pit in the Central North area.

The northwest facing walls in the existing Central and Radio Towers pits have experienced planar-type failures associated with the interaction of faults, regional fabric, alteration regime and lithological contact.

SRK is of the opinion that the geology and alteration model in the immediate vicinity of the planned Central high-wall is not defined to a level that would allow accurate assignment of localized variable slopes based on rock type and alteration. Additionally, SRK recommends that a geotechnical catch bench be included in the final design, since the highwall is about 1,000 ft high. In light of these considerations, SRK reduced the slope to 32.5° in that zone which is less than the 35° slope recommended by Golder.

Past mining in the upper benches of the Central pit in the failure zone indicates that the failure may be attributed to a structure running parallel to the highwall. A steeper highwall may be possible by mining behind this structure if the structure is the failure mechanism.

The failure zone in the existing Radio Towers pit is similar in nature to the failure zone in the Central pit. This pit is at the extents of the geological model. Golder's 2016 report indicates that the design will likely cut into Natchez Pass Limestone which is expected to be relatively strong and support steeper slopes. The Radio Towers pit is designed using the standard 45° rock and 38° fill slopes per Golder's assumption that the limestone can support steeper slopes.

In 2018, Golder supplied an updated report, recommending an observational approach to adapt to any changes in ground conditions as they are encountered. This is considered by SRK to be a sound engineering approach; however, more aggressive slopes may be possible with more geotechnical work and unforeseen changes in ground conditions could required design changes that affect the reserve.

A detailed geotechnical analysis focused on optimizing the pit slope angles for all mining areas has not been conducted. This analysis should be performed with a focus on evaluating risk, and on optimizing slopes, ultimately resulting in a new set of specific design criteria for all mining areas. There is a significant potential to either improve project economics and/or reduce project risk by performing such a study. At a minimum, the Central and Radio Towers designs should be evaluated by a qualified geotechnical engineer prior to construction.

SRK developed an updated groundwater surface for the mine. Water is only encountered in the lower benches of the Main pit, where the modeled groundwater surface rises towards the existing pit floor. For geotechnical purposes, the highwalls are assumed to be dry. This area warrants slope stability work and will require additional permitting prior to construction. Consequently, no mining is planned below the water table until 2021.

FCMI continues to evaluate the reconciliation of actual mine production against the resource model. As of the writing of this report, this work is still ongoing. Therefore, a clear description of dilution and ore loss at the mine is not available. For the purposes of pit optimization, dilution and ore loss factors of 3% and 2%, respectively, were applied.

For the detailed mine plan, blanket factors of 5% dilution and 5% ore loss were applied. The increase was based on SRK's engineering judgement with input from the site technical staff.

For both the pit optimization and the detailed mine plan, dilution material was assumed to be zero grade.

Open pit optimization is used to generate data to help identify the optimum economic pit shape based on the highest project cash flow for a given scenario. The pit optimization process seeks a solution to a complex 3-D mathematical relationship involving the mineral resource model, geotechnical slope guidelines, product revenue, project constraints, modifying factors, and costs. SRK used Whittle™ software to perform the pit optimizations.

Key outputs from the open pit optimization process are the identification of the project economic drivers, ultimate pit shapes and guidance on strategic logic to reach the final pit limits.

Practical mining considerations such as access and minimum mining widths are not captured in LG pit optimization. For the Florida Canyon Mine, access considerations and minimum mining widths affect the pit limits. These changes were incorporated in the next iteration of mine planning when a practical strategic plan is developed using the results of this pit optimization work as a guideline.

Mineral Reserve Estimate

The mineral reserve estimate for Florida Canyon is provided in Table 1-7. The mineral resources are inclusive of mineral reserves. The reserves are calculated using a combination of the ultimate pit design, cut-off grade, and production schedule. Reserves by mining area are provided in Table 1-8.

Table 1-7: Mineral Reserves statement for the Florida Canyon Mine, Pershing County, Nevada, effective date November 1, 2018

Category	Quantity (st 000s)	Au Grade (oz/ston)	Au Metal (oz 000s)
Proven	80,739	0.011	876
Probable	13,896	0.010	137
Proven and Probable	94,634	0.011	1,013

Source: SRK, 2018

Notes:

- The Qualified Person for the estimate is Mr. Justin Smith, P.E., SME-RM.
- The Mineral Reserves and Resources in the Florida Canyon Report were estimated using the CIM Definition Standards (2014).
- Reserves are reported within a designed pit using a cut-off of 0.006 oz/ston for the radio towers mining area and 0.005 oz/ston for all other areas.
- The Mineral Reserves are based on a pit design which in turn aligns with an ultimate pit shell selected from a Lerchs- Grossmann pit optimization exercise. Key inputs for the reserve cut-off calculation are:
 - A metal price of \$1,250/oz Au;
 - Ore mining costs by area ranging from \$1.42 to \$2.67/ston;
 - Waste mining costs by area ranging from \$1.24 to \$1.83/ston;
 - Crushing and processing costs of \$2.85/ston ore;
 - General and administration costs of \$1.02/ston milled;
 - Pit slope angles varying from 32.5 to 45°; and
 - Process recoveries of 70%.
- Mining dilution is assumed to be 5% at zero grade;
- Ore loss is assumed to be 5%;
- The ultimate pit design includes 97.9 Mston of waste, resulting in a stripping ratio of 1.0 tons waste to 1.0 ston of ore.
- All figures are rounded to reflect the relative accuracy of the estimate. Totals may not sum due to rounding.

Table 1-8: Florida Canyon Mine Reserves by mining Area, Pershing County, Nevada, effective date November 1, 2018

Mining Area	Cut-off (oz/ston)	Category	Quantity (ston 000s)	Au Grade (oz/ston)	Au Metal (oz 000s)
Main	0.005	Proven	22,593	0.010	217
		Probable	5,437	0.009	49
		Proven and Probable	28,029	0.010	267
Central	0.005	Proven	31,188	0.011	331
		Probable	2,872	0.010	27
		Proven and Probable	34,060	0.011	358
Central North	0.005	Proven	6,311	0.011	68
		Probable	2,225	0.011	24
		Proven and Probable	8,536	0.011	92

Jasperoid Hill	0.005	Proven	2,205	0.011	25
		Probable	915	0.009	8
		Proven and Probable	3,120	0.011	34
Radio Towers	0.006	Proven	18,443	0.013	235
		Probable	2,446	0.011	28
		Proven and Probable	20,889	0.013	263

Source: SRK, 2018

Notes:

1. Mineral Reserves have an effective date of November 1, 2018. The Qualified Person for the estimate is Mr. Justin Smith, P.E., SME-RM.
2. The Mineral Reserves and Resources in the Florida Canyon Report were estimated using the using the CIM Definition Standards (2014).
3. Reserves are reported within a designed pit using a cut-off of 0.006 oz/ston for the radio towers mining area and 0.005 oz/ston for all other areas.
4. The Mineral Reserves are based on a pit design which in turn aligns with an ultimate pit shell selected from a Lerchs-
5. Grossmann pit optimization exercise. Key inputs for the reserve cut-off calculation are:
 - A metal price of \$1,250/oz Au;
 - Ore mining costs by area ranging from \$1.42 to \$2.67/ston;
 - Waste mining costs by area ranging from \$1.24/to \$1.83/ston;
 - Crushing and processing costs of \$2.85/ston ore;
 - General and administration costs of \$1.02/ston milled;
 - Pit slope angles varying from 32.5 to 45°; and
 - Process recoveries of 70%.
6. Mining dilution is assumed to be 5% at zero grade;
7. Ore loss is assumed to be 5%;
8. The ultimate pit design includes 97.9 Mston of waste, resulting in a stripping ratio of 1.0 ston waste to 1.0 ston of ore.
9. All figures are rounded to reflect the relative accuracy of the estimate. Totals may not sum due to rounding.

Factors Affecting Mineral Reserves

SRK is not aware of any existing environmental, permitting, legal, socio-economic, marketing, political, or other factors are likely to materially affect the mineral reserve estimate.

In addition to the mine and processing facility development, all infrastructure required to support the stated Mineral Reserve have been accounted for in this PFS.

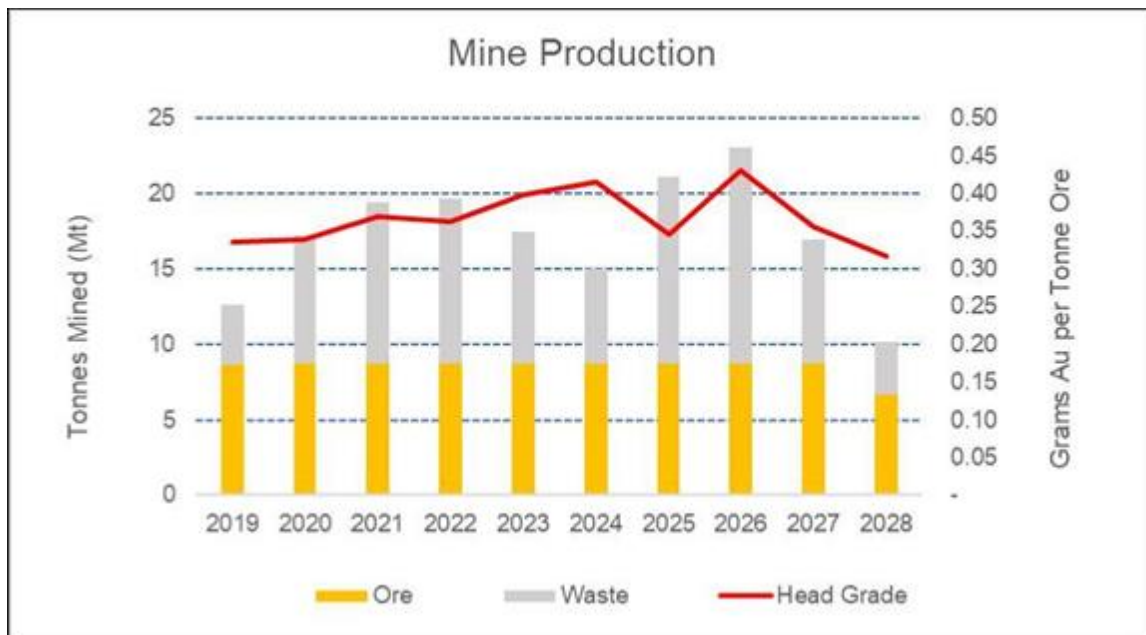
Mineral reserves have been economically tested to ensure that they are economically viable. The project remains economic across a range of key input parameters.

The pit design for establishing mineral reserves also encompassed Inferred Mineral Resources. Inferred Mineral Resources are too speculative to be the basis of mineral reserves. While there is the opportunity that future exploration may result in upgrading some of Inferred Mineral Resources to Indicated or Measured, there is no guarantee that this may occur.

Operational Data

Production to Date

SRK's production schedule starts with the November 1st, 2018 as-mined surface. The current operation is delivering between 650,000 tpm to 700,000 tpm of ore to the crusher. The PFS production schedule ramps up to 800,000 tpm delivered to the crusher in April 2019 and continues that mining rate through the end of the mine life in 2028. The mine schedule was limited by truck hours, with only 10 trucks for production mining in 2019 and ramping up to 12 trucks from 2020 through LOM. In 2026 stripping requirements mandate a 16-size truck fleet. It is expected that as replacement equipment is brought in, older equipment will be maintained well enough to meet the stripping requirement.



Mine Plans and Activities

Florida Canyon Mine operates as an open pit and has done so for over twenty years. The nature of the orebody is a large, low grade, near-surface orebody, so the Florida Canyon Mine project is developed as an open pit mining operation in the Florida Canyon Report. Waste and ore are drilled and blasted, loaded by front end wheel loaders, and transported by haul trucks to external waste rock storage facilities, stockpiles, or a primary crusher for mineral processing.

During a strategic mine planning study prior to the PFS, Alio Gold established that an optimal processing throughput rate was 800,000 tons per month (tpm) and is possible after implementing several adjustments to the crushing circuit as described in Section 13. This became the basis of mine planning in the PFS.

Crushed ore is loaded into haul trucks and stacked on the heap leach pad facility where it is irrigated with a dilute cyanide solution and recovered with carbon columns.

The current mining operation utilizes 24-yd³ front-end loaders to load 150-ton haul trucks. Rock is drilled by diesel powered rotary blast hole drills. Replacement equipment is included in sustaining capital to replace aging equipment. Replacement equipment is leased as the equipment reaches its assumed age threshold through the remainder of the mine life. Replacement equipment is assumed to be the same size as the present fleet. The mine will keep some of the older equipment to maintain or supplement production if necessary.

Processing

Ore is crushed in two stages to 80% passing 1-1/2 inches. ROM ore is delivered from the mine via truck to the ROM stockpile adjacent to the primary crusher. A loader feeds ore from the stockpile to the primary crusher dump pocket. Capital expenditures are planned in 2019 to eliminate the rehandling of ore ahead of the primary crusher. Ore passes over a primary vibratory grizzly with nominal bar spacing of 6 to 4.5 inches. The grizzly undersize reports directly to the primary crusher product conveyor. The grizzly screen oversize reports to the primary crusher (44" x 48" Telsmith jaw crusher) with a closed sized setting of 4 inches. Ore from the primary crusher product conveyor is split into two streams which feed two secondary screen feed conveyors operating in parallel. The secondary screen feed conveyors discharge to the secondary screens (8 ft by 20 ft Telsmith double deck screens). Screen oversize reports to the secondary crushers, two Metso HP 400 cone crushers operating in parallel. Screen undersize reports to the one of the two secondary crusher product belts which is then transferred to the product conveyor belt. Lime is added to the ore for pH control which then reports to the agglomeration blender where agglomeration aid is added. Material from the agglomeration unit is deposited on a small stockpile and subsequently loaded into haul trucks for stacking on the heap leach pads.

The planned crushing plant throughput is 800,000 tons/month. The average instantaneous crushing plant throughput is 1,400 t/h at the planned crushing plant operating availability of 78%.

Column leach tests are conducted on monthly crusher composite samples of the crushed ore stacked on the heap. The columns are operated as close as possible to the actual production leaching process with respect to solution chemistry and solution application rate. The column results indicated average gold extractions of 69.9% after an average of 107 days of leaching. Median column test gold recovery after the same average leach time of 107 days was 71.1 percent. Since much of the historical column leach testing reported in section 13.2 is based on a fixed 28-day period of column leaching, the historical extractions are not fully representative of expected leaching performance on the production heap.

Infrastructure, Permitting and Compliance Activities

Project Infrastructure

The Florida Canyon Mine has a well-established project infrastructure and is located adjacent to I-80, a major highway crossing the United States, traversing the active gold mining areas of Northern Nevada. In general, the site parallels I-80 in a northeast/southwest direction, the Union Pacific Railroad runs parallel to the highway approximately one-half mile northwest of the interstate. Existing infrastructure includes power, water, maintenance facilities, lab, office, gold processing and refining plants. Other existing infrastructure include open pits, waste rock repositories, heap leach pads, ponds and roads.

The site is easily accessible by roads and logistics for mining goods and services are excellent. Major mining vendors are in Winnemucca, Nevada, Elko, Nevada, Reno, Nevada and Salt Lake City, Utah. Major components for mine mobile equipment are rebuilt in Reno and exchange components are typically available within one day. Process goods and services are also available either locally in Winnemucca or Elko and most parts are available within one day. Parts can be delivered by “hot shot” vendors that drive from airports or vendor locations in Reno, Salt Lake City and Elko, 24r hours per day, seven days a week. Doré bars are shipped from site to a refiner in Salt Lake City by a security firm that services multiple mines in the area.

Power is transmitted via a 60-kV overhead transmission line owned, operated and maintained by NV Energy, who is the major provider of energy in the state of Nevada. NV Energy supplies most of the mines in Nevada, as well as the cities of Reno and Las Vegas. The utility is governed by the Nevada Public Utilities Commission who provides oversight on behalf of customers. Power is received from the 60-kV line by an onsite substation. FCMI bears the responsibility for owning, operating and maintaining the onsite substation, as well as all the power infrastructure on the mine side of the onsite substation. This infrastructure includes both underground and overhead power lines that feed 25-kV of electricity to distribution transformers after the voltage is stepped down from 60 to 25kV by the onsite transformer. Several distribution transformers drop the voltage down to operational requirements at the crusher, process plant, refinery and ancillary facilities. Critical areas of the process plant and refinery are backed up with diesel generators. Switch gear is installed in critical areas to isolate line power from generated power in the event of a power outage or interruption. FCMI employs personnel to maintain the mine electrical system and hires contractors to repair major issues with the system. Contractors are in Winnemucca, Elko, Reno and Salt Lake City, typically within a maximum of one day’s notice of a major power event.

Water supply requirements are met with ground water wells. Water is pumped from the wells to supply leaching, process, dust control and drinking water. Florida Canyon has 2,415 acre-feet of water rights, which are adequate to meet the mines needs. Some groundwater is geothermal in nature and is pumped to two cooling ponds before distribution via a pipe to a water tank. Water is transported by pipe from the water tank to leaching, crushing, processing and stand pipes that supply water to large water trucks that apply water to haul roads.

Multiple open pits and waste rock storage facilities exist on the site. Some of the previously mined open pits are partially backfilled. Future mining primarily mines the outer edges and below existing pits. Four primary mine areas comprise future and past open pits; jasperoid, main, central and radio tower. Mining waste is currently hauled to the South Waste Rock Storage Facility (South WRSF), in the future waste will continue to be hauled to the South WRSF, North WRSF, and backfill the Jasperoid pit once it is mined out. Reclaimed WRSFs also exist on the site.

Two heap leach pads are located on the site and referred to as the North Pad and South Pad. The North Pad is filled to capacity and all crushed material is now placed on Phase 1 of the South Pad. Two more phases will be built in the

future to process the current reserve, Phase 2 and Phase 3, respectively. Solution is applied to approximately one-third of the North Pad system and a contained piping system allows for solution to flow to the South Pad, providing operational flexibility. South Pad makeup water can flow directly from the fresh water system or use solution from the North Pad to South Pad. Approximately one-third of the North Pad is available to leach material should economics warrant and an engineering review confirm the feasibility of doing so. The remainder of the North Pad is reclaimed.

Both the North and South Pad systems have existing pregnant, barren, storage and contingency ponds. Several ponds are not in use in the North Pad system, ponds in the South Pad system will be used for the remainder of the mine life.

A total of six sets of carbon columns are onsite, four at the North Pad system and two at the South. The maximum capacity is approximately 9,000 gallons per minute. Gold adsorption is almost exclusively done at the two South Pad column sets with a maximum flow of 5,000 gallons per minute. Carbon is transferred from the carbon columns to a gold recovery plant and stripped of gold in the elution and electrowinning circuits of the plant. The barren carbon is then acid washed, regenerated and returned to the carbon columns. Gold captured through the elution and electrowinning process is refined at the plant. A lab is also located at the plant processing pit samples, solution samples and bullion assays. Metallurgical testing is also housed in the laboratory facility.

A crushing plant was moved from the Standard Mine to the South Pad. The plant consists of a jaw crusher, two cone crushers, two screens, an agglomerator, as well as belts that transport crushed material to a radial stacker. Trucks haul the crushed material from the radial stacker to the leach pad.

A mobile maintenance shop, process maintenance shop, warehouse, offices, truck wash pad and fuel farm comprise the majority of ancillary facilities at the site. The mobile maintenance shop includes two bays and the warehouse includes supplies for mobile equipment, crushing equipment, process parts and smaller items for support departments

Environmental

SRK Environmental Specialist, Mark Willow, a Qualified Person in accordance with Companion Policy 43-101CP to National Instrument 43-101 – *Standards of Disclosure for Mineral Projects*, has visited the Florida Canyon Mine on several occasions over the past few years, and is familiar with the conditions on the property and any potentially available material information that could affect project development.

Since the Florida Canyon Mine is partially located on public lands administered by BLM of the mine Plan of Operations or any amendment thereto, requires an assessment and disclosure of potential environmental and limited social impacts as part of the BLM's obligations under the National Environmental Policy Act. Baseline data collection and impact assessment have been completed on the property in accordance with NEPA, including an assessment of cumulative impacts. Given our extensive experience with EA development for mining projects in Nevada, and specifically for the BLM, it is SRK's opinion that the environmental studies and baseline data collected for the project (specifically APO 20) are appropriate and have adequately identified the environmental impacts associated with project implementation. Comprehensive environmental management plans are required as part of the state and federal permitting efforts.

SRK is not aware of any known environmental issues that could materially impact the FCMI's ability to extract the mineral reserves. However, at least one environmental issue is significantly relevant to the operations, and merits inclusion herein: Identified during routine site monitoring in 2000, the migration of nitrate from beneath the Florida Canyon Heap Leach Pad has been an issue with the Nevada Division of Environmental Protection – Bureau of Regulation and Reclamation since that time, this facility is identified as the North HLP in this document. Several Findings of Alleged Violation and Administrative Orders have been issued on this matter. A trust fund has been established to financially deal with this issue.

Permits

SRK was provided a comprehensive list and copies of current permits and authorizations for the Florida Canyon Mine. A review of the permits indicated that FCMI is fully permitted for the current operations, though several minor "expired" permits are undergoing renewal as of the publication of the Florida Canyon Report. FCMI also has water rights and appropriations, as well as monitor well waivers issued by the Nevada Division of Water Resources for 25 production and monitoring wells.

The following is a summary of the Florida Canyon Mine permits:

Table 1-9: Current permits for Florida Canyon (as of August 20, 2018)

Regulatory Agency	Permit Name/Description	Status	Company	Number
Federal Permits				
BLM	Approved Plan of Operations Amendment APO 20	Approved Dec. 11, 2014	FCMI	APO 20 / BLM Case File Number N64628
BLM	FCMI APO 20 EA and FONSI	Approved November 2014	FCMI	DOI-BLM-NV-W010-2013-0061EA
USGS	Production Report	--	FCMI	--
USFW	Biological Evaluation	--	FCMI	--
USACE	Clean Water Act 404 Permit	Changes to be filed in 2019	FCMI	SPK-1993-00562, SPK-1994-00672, SPK-1996-25191, SPK-1997-25143, SPK-1998-25164, SPK-2001-25091, SPK-2002-25128
U.S. EPA	Hazardous Waste	Conditionally Exempt Small Generator	FCMI/SGMI	NV0000441535
FCC	Radio Station Authorization	Expires 1/16/2026	FCMI	Registration No. 0014282289
FCC	Radio Station Authorization	Expires 8/23/2021	FCMI	Registration No. 0020884532
U.S. DOJ/BATF	Federal Explosives License/Permit	Permit held by Southwest Energy	Southwest Energy (Contractor)	9-NV-013-20-7L-00248
State				
NDEP-BMRR	Water Pollution Control Permit	Expires August 12, 2021	FCMI	NEV0086001
NDEP-BMRR (Reclamation Branch)	NAC 519A Reclamation Permit APO-20	Effective November 23, 2016	FCMI	#0126
NDEP-BAPC	Class II Air Quality Operating Permit	Issued July 9, 2018	SGMI, FCMI	AP 1041-0106.03
NDEP-BAQP	Mercury Operating Permit to Construct: Phase 2	Issued July 12, 2010	FCMI	AP 1041-2256
NDEP-BWPC	Mining Stormwater General Permit	Annual renewal due June 30, 2019	FCMI	MSW-176

NDEP-BWPC	Mining Stormwater General Permit	Annual renewal due June 30, 2019	SGM	MSW-175
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Regulatory Agency	Permit Name/Description	Status	Company	Number
NDEP-BWPC	Stormwater Pollution Prevention Plan (SWPPP)	Approved. Renewal expected in 2019	FCMI	--
BSDW	Permit to Operate a Public Water System	Annual renewal due October 31, 2019	FCMI	PE=0884-POU
BSDW	Permit to Operate a Public Water System	Annual renewal due October 31, 2019	FCMI	PE=0884-NTNC
NDOW	Industrial Artificial Pond Permit	Expires October 31, 2021	FCMI	S39296
NDOW	Industrial Artificial Pond Permit	Expires December 11, 2021	FCMI	S39299
NDWR	Florida Canyon Expansion Pond (Application for Approval of the Plans and Specifications for the	Issued. Permit fees paid annually	FCMI	J-501
	Construction, Reconstruction or Alternation of a Dam)			
NDWR	Florida Canyon Utility Pond (Application for Approval of the Plans and Specifications for the Construction, Reconstruction or Alternation of a Dam)	Issued. Permit fees paid annually	FCMI	J-468
NDWR	Multiple Pond Locations (Application for Approval of the Plans and Specifications for the Construction, Reconstruction or Alternation of a Dam)	Issued. Permit fees paid annually	FGMI, SGMI	J-458
NDWR	South Process Ponds (Application for Approval of the Plans and Specifications for the Construction, Reconstruction or Alternation of a Dam)	Issued. Permit fees paid annually	FCMI	J-727
NDEP	PCS Waiver	Expires September 9, 2019	FCMI	SW513
Nevada Board for the Regulation of Liquefied Petroleum Gas	Liquefied Petroleum Gas Storage	Annual renewal due January 2020	FCMI	5-5450-01 & 5- 5450-02
TRI	Toxic Release Inventory State	Annual reporting due July 1st	FCMI/SGMI	N/A
NSFM	Nevada State Fire Marshal Hazardous Materials Permit	Expires February 28, 2019	FCMI	76468

Regulatory Agency	Permit Name/Description	Status	Company	Number
NDEP	Class III Waivered Landfill	Expires January 13, 2021	FCMI	SW342a
NDEP-BWPC	On-site Sewage Disposal System - General Septic	Annual renewal due June 30, 2019	FCMI	GNEVOSDS09L0095
Pershing County	Nevada Business License - Florida Canyon Mining, Inc.	Expires February 29, 2020	FCMI	NV19991176060
Pershing County	County of Pershing Business License	Expires June 30, 2019	FCMI	License No. 007113

FCMI also has water rights and appropriations, as well as monitor well waivers issued by the Nevada Division of Water Resources for 25 production and monitoring wells at both mines.

Social and Community Requirements

Employees for the operating work force of the Florida Canyon Mine generally come from Winnemucca or Lovelock, Nevada. The FCMI APO 20 EA determined that the mine would result in a temporary positive effect on mine-related employment and income in terms of labor income and secondary employment. It was also concluded that net mineral proceeds, property and sales and use taxes would also increase during the life of the assessed action.

Other current projects in central Nevada have clearly demonstrated the need for open and transparent communications and negotiations with the local government, businesses, and residences, as well as the need for a clearly defined Social Management Plan. Without the support of this close-knit community, the approval within the local community and other stakeholders to operate may not be earned.

Capital and Operating Costs

Capital Cost Estimate

The Florida Canyon Mine is an ongoing operation. For the purposes of the Florida Canyon Report, all capital spent to date is considered a sunk cost. Additional capital is now needed to replace current equipment, construct leach pads, replace process equipment and improve crusher production. These capital costs are required to sustain operations. A summary of mine capital expenditures is shown in Table 1-10.

Table 1-10: LOM capital costs estimates

Item	LOM Total (\$ 000)	2019 (\$ 000)	2020 (\$ 000)	2021 (\$ 000)	2022 (\$ 000)	2023 (\$ 000)	2024 (\$ 000)	2025 (\$ 000)	2026 (\$ 000)	2027 (\$ 000)
Mine	39,286	0	8,072	5,397	6,717	6,698	6,534	3,231	2,019	617
Process	7,319	875	1,100	2,811	2,533	0	0	0	0	0
Leach pad	24,577	7,869	5,511	5,686	5,511	0	0	0	0	0
Owner and infrastructure	1,980	0	330	330	330	330	330	330	0	0
Total capital	73,163	8,744	15,013	14,225	15,091	7,028	6,864	3,561	2,019	617
Total contingency	8,739	1,531	1,978	1,984	1,960	466	433	246	109	32
Total capital and contingency	81,901	10,275	16,991	16,209	17,052	7,494	7,296	3,807	2,128	649

Basis for Capital Cost Estimates

Capital costs for the mining equipment fleet and the replacement loaders for the crushing plant were based on supplier budgetary quotations. Items that did not have a direct quote (rubber-tired dozer, water truck) were factored from similar sized equipment. The budgetary quotation included delivery and on-site assembly. A 7.1% Pershing County sales tax was added to the quotation. Equipment costs were assumed to be leased and the capital portion of the leasing cost was included in the capital costs.

Process equipment installation cost was factored as a percentage of the purchase price.

Leach pad capital costs were developed from first principles. Contractor and material costs from 2018 leach pad construction quotations for a northern Nevada project were used as a basis for costing leach pad construction.

All capital costs are in 2018 US dollars.

Mining Capital Cost

All mining equipment capital costs assume replacement of existing equipment. The equipment will be replaced to minimize the cost of maintaining a fleet with high operating hours and increase equipment availability. Equipment purchase cost, which includes delivery, assembly and sales tax, and equipment replacement is shown in Table 1-11.

Table 1-11: Equipment purchase schedule

Mining Equipment	Price (\$ 000)	LOM quantity	2019	2020	2021	2022	2023
CAT 993 Loader	3,122	2		1		1	
Cat 785 Trucks	2,329	8		4	2	2	
Cat 16G Motorgrader	1,135	2		2			
Cat D9 Dozer	1,170	2			1		1
Cat D10 Dozer	1,555	1		1			
DM45 Drill	1,392	2		2			
Cat 777 Water Truck	1,499	1			1		
RT Dozer	2,142	1					1

The purchase of the equipment is assumed to be through a leasing agreement.

Only the capital portion of the equipment lease was included in the capital cost estimate. The interest portion of the lease payments was excluded. Total cost of the interest over the life of the leases total \$6.7M.

No salvage value for the existing equipment was included in the economics.

Other mining capital included the relocation of the radio towers. The \$1.525M cost of relocation was supplied by the owner of the towers. The cost for two used service trucks and one used lube truck were based on recent purchases of similar equipment. The cost for upgraded mine planning software was included in capital.

Process Capital Costs

Process equipment capital includes:

- Improving the primary crushing system feed system
- Replacing equipment in the processing plan
- Replacing loaders used at the primary crusher

A feeder will be added in front of the primary crusher to allow more efficient feeding. Capital costs assumed that a new feeder available from Alio Gold's San Francisco mine would be moved to Florida Canyon. Installation costs were factored based on the cost of a new feeder.



Replacement of the kiln, strip vessel and thermal fluid heater are scheduled in 2020. The purchase price of these items was based on vendor quotations. These items are for replacement of existing equipment, and it was assumed that electrical, piping and control system changes would be minor. The installation cost was assumed to be 50% of the purchase price. Sales tax on the purchase price was also included in the capital estimate.

Direct purchase of two new Caterpillar 992 loaders and a used mechanic truck were also included in the capital cost estimates. These items are replacements for existing equipment.

Leach Pad Capital

Leach pad capital cost was estimated from first principles using equipment, labor and materials costs from a similar 2018 project in northern Nevada. Costs were estimated assuming four equal sized leach pads would be constructed adjacent to the current leach pad. Designs have not been completed on these pads. Estimates were made on the earthwork quantities from similar projects. Timing of the leach pad construction is based on a stacking plan, assuming 800,000 tons stacked per month. The cost for the designing and permitting the phases was also included in the capital.

The leach pad capital cost also includes costs for constructing a diversion channel around the entire leach pad build out area. Costs for the diversion channel are based on a contractor bid.

Other Capital Costs

Allowances were made for purchases of light vehicles and other miscellaneous capital for the remainder of the mine life

Cash Operating Costs

Operating costs were estimated for the LOM Plan based partially on first principles and partially on actual operating data from the mine site. LOM unit costs are shown in Table 1-12.

Table 1-12: LOM unit cost estimates

Cost Category	LOM Total (\$M)	Unit Rates
Mining	332.5	\$1.75/ston moved
		\$3.55/ston processed
Crushing & Processing	274.4	\$2.93/ston processed
Site General & Administrative	56	\$0.60/ston processed
Total Operating Costs	662.9	\$7.08/ston processed

Mining costs were developed based on the existing owner mining unit operations and estimated truck haulage schedules and distances. As the existing truck fleet is expected to be replaced, maintenance costs were based on first principals for new equipment. Processing costs were estimated based on current operations, with adjustments to the operating cost following capital improvements to eliminate re-handling of ore ahead of the crusher.

Unit costs were applied to the mine plan, resulting in expected LOM cash cost expenditures of \$663M, or \$903/oz of gold produced as outlined in Table 3-13.

Table 1-13: LOM cash cost estimates

Cost Category	Life-of-Mine (\$M)	\$/oz
Mining	333	453
Crushing & Processing	274	374
General & Administrative	56	76
Total cash costs	663	903
Refining Charges	3	4
Royalties	44	60
Sustaining capital	68	92

All-in Sustaining Costs	777	1,058
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In addition to cash costs, \$3.48 per ounce of gold has been allowed for charges from the refinery to refine doré into saleable gold. This cost is based on the current precious metals refining contract. In addition, Florida Canyon Mine production is subject to two royalties payable to third parties based on gold revenues: a 2.5% NSR royalty 3.25% and a royalty based on NSR less allowable deductions. The two royalties equate to 4.6% of net revenues at \$1,300/oz gold price, or \$60/oz.

Economic Analysis

Annual cash flows were estimated for the LOM based on revenues projected at a long-term gold price of \$1,300/oz and totaled \$954M LOM. Historically, Florida Canyon has produced approximately 0.88 ounces of silver for every ounce of gold. Silver has not been modeled in the mineral reserve estimate and as such, no credit has been taken in this study for silver revenue. In 2018, Florida Canyon generated approximately \$0.5M in revenue from silver.

Expected AISC totaling \$777M as described above were deducted from the revenues. In addition, closure cost net of future bond releases was estimated based on forecast disturbances at the end of the mine life totaling \$16.8M.

Estimates for taxes payable include the Nevada Net Proceeds tax of 5% of taxable income, US Federal tax at 21% of taxable income, and property taxes. Free cash flow is defined as revenues less AISC, non-sustaining capital, taxes and closure costs and totals an expected \$138M LOM. Discounting these cash flows using a 5% discount rate results in a net present value of \$105M for the LOM. A summary of KPI's and economic analysis is shown in Table 1-14.

Table 1-14: Economic analysis summary results

Project Metric	Units	Value
Pre-Tax NPV @ 5%	\$M	111.8
After-Tax NPV @ 5%	\$M	104.5
Undiscounted After-Tax Cash Flow (LOM)	\$M	137.6
LOM Sustaining Capital Expenditure	\$M	67.7
LOM Cash Costs	\$/oz Au	903
Nominal Process Capacity*	Mtpa	9.6
Mine Life	years	9.8
LOM Process Feed*	Mt	93.7
LOM Grade	ounces Au/ston	0.0107
LOM Waste Volume*	Mt	96.6
LOM Strip Ratio (Waste:Ore)	ratio	1.03
LOM Average Annual Metal Production	ounces Au (000s)	75
LOM Average Process Recovery	% contained metal	71

*Note: mass reporting units are in short tons

Pre-finance free cash flows exclude the interest component associated with \$37.5M of proposed equipment leases which total approximately \$6.7M based on current rates and terms available from CAT Financial. The pre-finance free cash flow also excludes both the interest and principal payments on \$3.7M of existing leases. The inclusion of these finance charges would decrease the after-tax NPV of the project from \$104.5M to \$93.9M at \$1300/oz gold.

The net present value and LOM expected free cash flow is sensitive to the long-term price of gold, as shown in Table 1-15.

Table 1-15: Sensitivity of net present value and LOM free cash flow to gold price

Gold Price	NPV (5%)	LOM Cashflow
(\$/oz)	(\$M)	(\$M)
1,200	51	71
1,250	78	105
1,300	105	138
1,350	131	170
1,400	156	202
1,450	181	233
1,500	205	263

Conclusions and Recommendations

Mineral reserve estimates in the Florida Canyon Report convert a large portion of the Florida Canyon Mine mineral resources to mineral reserves. Approximately, 700,000 gold ounces are not converted from the Resource to the Reserve and the primary opportunity to convert these ounces is a higher gold price. Development of more oxide resources around the mine area may allow a portion of the 700,000 gold ounces to be classified as reserves.

SRK concludes that geotechnical work is sufficient for a prefeasibility study, however further geotechnical technical and hydrological work is necessary to refine pit designs. A geotechnical firm must evaluate the Central, Radio Tower and Main pit designs. The Main pit is mined below the water table, therefore a hydrology model is required to meet final pit design and permitting requirements.

Significant pit phasing design work is done in the Florida Canyon Report and is sufficient for a prefeasibility level of study. Additional work is recommended to refine the ultimate pit designs, phase designs and mine schedules.

The Florida Canyon Mine is a fully permitted and authorized operation in a mining jurisdiction that is heavily regulated and overseen. Appropriate environmental studies and impact assessments have been completed as part of the state and federal permitting processes; however, additional efforts will be necessary for the currently proposed expansion plans. SRK does not believe that these modifications constitute a material change to the mine plan of operations, and therefore should not take more than 12 months to acquire once submitted, accepted, and deemed complete by the regulatory agencies involved.

SRK is not aware of any known environmental issues that could materially impact the FCMI’s ability to extract the mineral reserves. However, at least one environmental issue is significantly relevant to the operations, and merits consideration; the migration of nitrate in groundwater beneath the Florida Canyon HLP has been an issue with the Nevada Division of Environmental Protection – Bureau of Regulation and Reclamation since the year 2000. Several Findings of Alleged Violation and Administrative Orders have been issued on this matter. A trust fund has been established to financially deal with this issue.

The regulatory-required reclamation bond cost estimate for the Florida Canyon Mine (as calculated for the December 2017 submittal) was approximately \$30M. The first-party (FCMI-conducted) closure cost estimate, provided by FCMI and used in the technical economic model, is \$16.8M, and considers the reduced labor and equipment rates of self-implementation over state/federal rates used for bonding, and has taken credit for partial, concurrent cash bond releases during the first few years of reclamation when the majority of the earthworks are customarily completed. SRK did not verify the assumptions or validate the closure cost estimate used and recommends that the calculation be revisited when more accurate labor and equipment rates are available from the site.

Review of recent metallurgical test work along with historical and current operating data demonstrate that the Florida Canyon Mine ore types are amenable to heap leaching processing methods. Data also supports a median gold recovery of 71 percent at the current feed of 80 percent passing 1.5 inch. Recommendations for additional metallurgical test work and optimization are as follows:

Develop a heap leach sampling program to determine actual residual gold content after the first leach cycle.

Develop a detailed stacking and solution management plan.

Additional metallurgical test work should be done to optimize the following: lift height; lime dosage; leach cycle times; heap leach feed particle size and agglomeration requirements.

The Florida Canyon crusher operates two secondary cone crushers in parallel in open circuit. Crusher production has averaged 620 ktpm since the restart in 2017. Changes in operating schedule and improved maintenance planning have resulted in an increase in operating hours, and an increase in the monthly production to approximately 750 ktpm. Balancing of the circuit has also increased throughput to approximately 800 ktpm. It is expected that implementation of the planned modification to the ore feed bin allowing of direct dumping ROM ore will increase the monthly throughput to a steady state operating level of 800 ktpm and reduce operating costs by eliminating the re-handling of ore.

Other Mineral Properties

The Company owns the development stage Ana Paula Project in the state of Guerrero, Mexico. The Ana Paula Project has been placed on care and maintenance since August 2018 to allow the Company to focus efforts and capital on other projects. See “*General Development of the Business - Three Year History - 2018*” above.

The Company has title to the Patricia, Norma, La Pima and Los Carlos claims located in the state of Sonora, Mexico. The Company also has title to the Ejutla property in Oaxaca, Mexico which was acquired pursuant to a Plan of Arrangement with Newstrike Capital Inc. Additionally, the Company has title to the Golden Gate Pass and Panther Canyon claims located in Nevada, United States, which were acquired as part of the Rye Patch Acquisition. No exploration was performed on these properties during 2019.

DIVIDENDS

The Company has neither declared nor paid any dividends on its common shares. The Company intends to retain its earnings to finance growth and expand its operations and does not anticipate paying any dividends on its common shares in the foreseeable future.

CAPITAL STRUCTURE

Authorized and Issued Share Capital

The authorized share capital of the Company consists of an unlimited number of common shares of which 85,993,371 common shares were issued and outstanding as at December 31, 2019, and **85,993,371** common shares were issued and outstanding as at March 27, 2020. The holders of common shares are entitled to receive notice of and to attend and vote at all meetings of the shareholders of the Company and each common share confers the right to one vote in person or by proxy at all meetings of the shareholders of the Company. The holders of the common shares are entitled to receive such dividends in any financial year as the board of directors of the Company may by resolution determine. In the event of the liquidation, dissolution or winding-up of the Company, whether voluntary or involuntary, the holders of the common shares are entitled to receive the remaining property and assets of the Company.

Convertible Preference Shares

The authorized capital of the Company also includes an unlimited number of non-voting convertible preference shares without par value, none of which were issued and outstanding during the year ended December 31, 2019, and none of which are currently issued and outstanding.

Options

As at December 31, 2019, the Company had the following outstanding options pursuant to the Amended and Restated Stock Option Plan adopted by the Company’s board of directors on June 27, 2019. These options are exercisable into common shares carrying the same rights as the common shares described above.

Number of Options	Exercise Price (CAD)⁴	Issue Date	Expiry Date
20,000	7.50	May 8, 2015	May 7, 2020 ⁴
102,600	31.20	May 26, 2015	August 10, 2021 ^{1,4}

Number of Options	Exercise Price (CAD) ⁴	Issue Date	Expiry Date
31,500	9.60	May 26, 2015	May 20, 2021 ^{1,4}
31,500	15.00	May 26, 2015	March 21, 2021 ^{1,4}
64,350	6.50	May 26, 2015	November 29, 2020 ^{1,4}
220,500	7.80	May 26, 2015	June 27, 2020 ^{1,4}
100,000	7.60	May 26, 2015	May 26, 2020 ^{1,4}
82,500	2.90	November 5, 2015	November 5, 2020 ⁴
80,000	2.50	November 5, 2015	November 5, 2020 ⁴
105,000	3.30	June 1, 2016	May 30, 2021 ⁴
110,800	5.32	September 13, 2017	September 13, 2022 ³
170,495	3.30	February 26, 2018	February 26, 2023 ³
15,000	2.26	May 24, 2018	May 24, 2023 ³
102,624	2.71	May 25, 2018	February 12, 2028 ^{2,3}
68,306	6.77	May 25, 2018	August 12, 2026 ^{2,3}
8,491	2.17	May 25, 2018	August 28, 2025 ^{2,3}
5,538	3.67	May 25, 2018	July 22, 2024 ^{2,3}
27,690	2.71	May 25, 2018	July 12, 2023 ^{2,3}
22,153	4.06	May 25, 2018	July 17, 2022 ^{2,3}
7,384	8.13	May 25, 2018	January 18, 2022 ^{2,3}
30,000	1.00	August 23, 2018	August 23, 2023 ³
1,388,359	1.00	June 27, 2019	June 27, 2024 ³
400,000	0.78	November 19, 2019	November 19, 2024 ³
3,194,790			

Notes:

1. Newstrike Capital Inc. options converted to options in the Company as of May 26, 2015.
2. Rye Patch options converted to options in the Company as of May 25, 2018.
3. Grant made on a post-Consolidation basis.
4. As a result of the Consolidation on May 12, 2017, the exercise price of the options was adjusted on a 10:1 basis and the number of options required to obtain one common share of the Company was adjusted on a 10:1 basis.

Restricted Share Units

During 2019, the board of directors of the Company approved the granting of 352,752 restricted share units of the Company to certain eligible employees pursuant to the Performance and Restricted Share Unit Plan of the Company adopted by the Company's board of directors on September 12, 2017. These awards entitle the holder to receive a transfer of common shares of the Company purchased in the market, carrying the same rights as the common shares described above, but having restrictions regarding vesting and redemption. At the sole election of the Company, a cash payment equivalent to the fair market value of common shares may be made in lieu of the transfer of shares. As at December 31, 2019, 379,491 restricted share units were outstanding.

Performance Share Units

During 2019, the board of directors of the Company approved the granting of 302,359 performance share units of the Company to certain eligible employees pursuant to the Performance and Restricted Share Unit Plan of the Company adopted by the Company's board of directors on September 12, 2017. These awards entitle the holder, based on performance criteria, to receive a transfer of common shares of the Company purchased in the market, carrying the same rights as the common shares described above, but having restrictions regarding vesting and redemption. At the sole election of the Company, a cash payment equivalent to the fair market value of common shares may be made in lieu of the transfer of shares. As at December 31, 2019, 354,978 performance share units were outstanding.

Warrants

As at December 31, 2019, the Company had the following outstanding warrants issued in the capital of the Company.

Number of Warrants	Exercise Price US\$	Issue Date	Expiry Date
147,692(1)(2)	2.09	May 25, 2018	January 31, 2020
7,384,656(1)(2)	2.65	May 25, 2018	January 31, 2020
1,198,119(1)	2.98	May 25, 2018	July 28, 2021
1,107,692(3)	2.30	October 10, 2018	October 10, 2020

Notes:

1. Replacement warrants issued in connection with the Rye Patch Acquisition.
2. Subsequent to December 31, 2019, 7,532,348 warrants expired unexercised.
3. Warrants issued in settlement of financial liabilities assumed in connection with the Rye Patch Acquisition.

MARKET FOR SECURITIES

On May 12, 2017, the Company effected the Name Change and the Consolidation. The Company's common shares commenced trading on a post-Consolidation basis on the TSX and NYSE AMERICAN on May 16, 2017, under the symbol "ALO". Prior to May 16, 2017, the Company's common shares were listed and posted for trading on the TSX under the symbol "TMM" and were listed for trading on the NYSE AMERICAN under the symbol "TGD". Prior to March 23, 2011, the Company's common shares were listed and posted for trading on the TSX Venture Exchange under the symbol "TMM". The following table gives the monthly trading ranges for the Company's common shares and the number of common shares traded ("Volume") on the TSX:

Trading Price and Volume Toronto Stock Exchange

2019	High C\$	Low C\$	Close C\$	Volume
January	1.38	0.98	1.12	5,893,354
February	1.30	1.03	1.19	3,639,851
March	1.14	0.97	0.97	3,754,221
April	1.06	0.90	0.93	1,478,481
May	0.93	0.71	0.82	1,898,277
June	1.03	0.79	1.01	2,203,074
July	1.22	0.99	1.07	3,387,165
August	1.16	0.93	0.93	3,404,497
September	0.97	0.82	0.82	2,199,643
October	0.85	0.74	0.80	2,239,754
November	0.86	0.74	0.80	1,607,841
December	1.01	0.80	1.01	3,151,465

ESCROWED SECURITIES

None of the Company's securities are held in escrow.

DIRECTORS AND OFFICERS

Director and Officer Information

The following table provides the names, municipalities of residence, position, and principal occupations of each of the directors and executive officers as of the date hereof. Each director is elected at the annual meeting of shareholders or appointed pursuant to the provisions of the Company's articles and applicable law to serve until the next annual meeting or until a successor is elected or appointed, subject to earlier resignation by the director.

Name, Province and Country of Residence and Position with the Company	Director/Officer Since	Principal Occupation for the Past Five Years
DIRECTORS		
Mark D. Backens British Columbia, Canada <i>Chief Executive Officer, President, Director</i>	May 26, 2015	Corporate Director; Corporate Development and Mining Consultant (February 2013 to present); Company's Chief Executive Officer and President (March 15, 2019 to present); Company's Interim Chief Executive Officer (October 2015 to February 2017).
George Brack ⁽¹⁾⁽²⁾ British Columbia, Canada <i>Director</i>	July 31, 2014	Corporate Director.
Stephen Lang ⁽²⁾⁽³⁾ Missouri, USA <i>Director</i>	July 31, 2014	Corporate Director.
John Mansanti ⁽²⁾⁽³⁾ Denver, Colorado <i>Director</i>	May 25, 2018	Corporate Director; Chief Executive Officer and President of Crystal Peak Minerals (January 2018 to present); Senior Vice-President Strategic Initiatives and Technical Services of Intrepid Potash, LLC. (January 2015 - August 2017).
Paula Rogers ⁽¹⁾ British Columbia, Canada <i>Director</i>	August 3, 2011	Corporate Director.
David Whittle ⁽¹⁾⁽³⁾ British Columbia, Canada <i>Director</i>	June 27, 2019	Corporate Director; Chartered Professional Accountant; Director of Mountain Province Diamonds Inc. (1997 to present), serving also as Audit Committee Chair, Lead Outside Director and Interim Chief Executive Officer at various times.
OFFICERS		
Miguel Bonilla Sonora, Mexico <i>Country Manager, Mexico</i>	November 12, 2009	Company's Country Manager Mexico (March 2017 to present); Company's Vice-President Finance, Mexico (November 2009 to February 2017).
Ian Harcus British Columbia, Canada <i>Vice President, Finance</i>	May 25, 2018	Company's Vice President Finance (August 2018 to present); Company's Corporate Controller (May 2015 to August 2018); Manager Assurance Services of Grant Thornton LLP (October 2013 to May 2015).
Paul Jones British Columbia, Canada <i>Senior Vice President Corporate Development</i>	October 1, 2019	Company's Senior Vice President Corporate Development; Senior Director of Operations and Business Development (2015- 2018), and Vice-President of Business Development & Investor Relations (2018-2019) at Capstone Mining Corp.
Leslie Kapusiany British Columbia, Canada <i>Corporate Secretary</i>	June 28, 2012 -May 10, 2017 June 27, 2019	Company's Corporate Secretary and General Counsel; Barrister and Solicitor.

Notes:

1. Denotes a member of the Audit Committee of the Company
2. Denotes a member of the Compensation, Corporate Governance and Nominating Committee of the Company
3. Denotes a member of the Special Committee for Class Action Litigation of the Company

Shareholdings of Directors and Officers

To the best of the Company's knowledge, as at March 27, 2020, directors and executive officers, as a group, beneficially owned, directly, or exercised control over **965,026** common shares (not including common shares issuable upon the exercise of stock options) representing **1.12%** of the then outstanding common shares.

Corporate Cease Trade Orders or Bankruptcies

No director or executive officer of the Company is, as of the date hereof or was within 10 years before the date hereof, a director, chief executive officer or chief financial officer of any company (including the Company) that:

- (a) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation, for a period of more than 30 consecutive days, that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer; or
- (b) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation, for a period of more than 30 consecutive days, that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

Except as disclosed below, no director or executive officer of the Company, and no shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company:

- (a) is, as of the date hereof or was within 10 years before the date hereof, a director or executive officer of any company (including the Company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt made a proposal under any legislation relating to bankruptcy or insolvency, or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or
- (b) has, within 10 years before the date hereof, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.

Mr. Stephen Lang is a former director of Allied Nevada Gold Corp. which together with certain of its domestic direct and indirect subsidiaries, filed voluntary petitions for relief under chapter 11 of the U.S. Bankruptcy Code in the United States Bankruptcy Court for the District of Delaware on March 10, 2015. The plan was confirmed on October 6, 2015.

Penalties or Sanctions

No director or executive officer of the Company and no shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company has been subject to:

- (a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
- (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor making an investment decision.

The foregoing, not being within the knowledge of the Company, has been furnished by the respective directors, executive officers and shareholders holding a sufficient number of securities of the Company to affect materially the control of the Company.

Conflicts of Interest

The directors of the Company are required by law to act honestly and in good faith with a view to the best interests of the Company and to disclose any interests, which they may have in any project or opportunity of the Company. If a conflict of interest arises at a meeting of the board of directors, any director in a conflict will disclose his or her interest and abstain from voting on such matter. In addition, the Company's Compensation, Corporate Governance and Nominating Committee has developed, and the board of directors has adopted, policies which include requirements for all Company directors, officers, employees and consultants to disclose all conflicts of interest and potential conflicts of interest to the Company.

To the best of the Company's knowledge, there are no known existing or potential conflicts of interest among the Company, its promoters, directors and officers or other members of management of the Company or of any proposed promoter, director, officer or other member of management as a result of their outside business interests except that certain of the directors and officers serve as directors and officers of other companies, and therefore it is possible that a conflict may arise between their duties to the Company and their duties as a director or officer of such other companies.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

The Company is not party to any legal proceedings or regulatory actions except for the following:

Vendor Loan

Pursuant to the 2007 acquisition agreement under which the Company acquired the San Francisco Property (the "**Acquisition Agreement**"), the Company purchased certain mining equipment and buildings from a Mexican vendor for \$4,025,000. The balance outstanding at December 31, 2017, was \$1,725,000. The balance remains unpaid due to continuing mutual deferrals between the Company and the vendor. The Company signed a promissory note in favour of the vendor in the amount of \$1,725,000 on April 18, 2007. During the year ended March 31, 2011, an order was issued by the Mexico Tax Administration Service ("**SAT**") requiring the Company to directly pay amounts owed under the Acquisition Agreement to SAT rather than to the vendor through a process similar to a garnishment order. This was done to cover liabilities owed by the vendor to SAT. In January 2011, the order was overturned by a Mexican tax court, and was subsequently appealed by SAT. In May 2011, a Mexican appellate court judgment was issued confirming that the garnishment order had been imposed by SAT with insufficient legal support, and the Company started an administrative process to release the MXP 21,047,000 (\$1,811,000) of previously restricted funds. The funds were released from restrictions on July 5, 2011. The liability under the promissory note in favour of the vendor remains outstanding; however, the Company has received legal advice not to pay the amount to the vendor while the garnishment order remains outstanding. The vendor has obtained a court order to collect on the promissory note and to place a lien on seven of the San Francisco Property concessions. The Company has appealed the order. Upon the closing of the transaction with Magna pursuant to the share purchase agreement between Magna and Timmins Goldcorp Mexico S.A. de C.V ("**Timmins**") dated March 5, 2020, whereby Magna agreed to acquire all of the shares of Molimentales held by Timmins, the Company will no longer be party to this proceeding.

Peal Arbitration

In February 2019, Peal Mexico, S.A. de C.V. ("**Peal**") gave notice of the termination of the Mining Agreement between Peal and Molimentales del Noroeste, S.A. de C.V. ("**Molimentales**") dated September 17, 2009, as amended (the "**Peal Agreement**"). Peal also entered into an arbitration process seeking to recover demobilization expenses and a termination penalty under the Peal Agreement. Peal filed its demand with the arbitral tribunal on December 3, 2019 and Molimentales filed its answer to the demand and a counterclaim with the arbitral tribunal on December 19, 2019. On January 10, 2020, Peal filed its answer to the counterclaim with the arbitral tribunal. The Company has accrued all expenses, including demobilization costs, based on the actual costs incurred. The Company has not accrued a \$20.0 million termination penalty as it does not believe there is basis for the claim regarding the termination penalty in the Peal Agreement. The Company intends to vigorously defend its position in the arbitration and no additional liability has been recognized in the financial statements. Upon the closing of the transaction with Magna pursuant to the share purchase agreement between Magna and Timmins Goldcorp Mexico S.A. de C.V ("**Timmins**") dated March 5, 2020, whereby Magna agreed to acquire all of the shares of Molimentales held by Timmins, the Company will no longer be party to this arbitration proceeding.

Notice of Civil Claim

On May 2, 2019, the Company received a Notice of Civil Claim from a former shareholder of Rye Patch whose shares were acquired by the Company. The plaintiff brought the claim in the Supreme Court of British Columbia pursuant to the *Class Proceedings Act* (British Columbia) and is seeking damages against the Company and certain directors and officers for alleged misrepresentations with respect to anticipated gold production during the year ended December 31, 2018. On August 9, 2019 the defendants filed their Response to the Notice of Civil Claim, denying all of the allegations and on October 1, 2019 the parties attended a case planning conference. On October 22, 2019 the plaintiff filed an amendment to the Notice of Civil Claim dropping certain allegations and adding an allegation of insider trading against the Company to its claim. The certification hearing is scheduled to occur on April 15 - April 16, 2020. The Company and its counsel have reviewed the claim and the amendments to the claim and the outcome is not determinable at this time. Accordingly, no additional liability has been recognized in the financial statements.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than as disclosed in this AIF, no director, executive or insider of the Company, or associate or affiliate of them, has any material interest, direct or indirect, in any transaction since incorporation or in any proposed transaction that has materially affected, or will materially affect the Company.

REGISTRAR AND TRANSFER AGENT

The registrar and transfer agent of the Company is Computershare Trust Company of Canada, Suite 300, 510 Burrard Street, Vancouver, British Columbia, Canada V6C 3B9.

MATERIAL CONTRACTS

Except for contracts made in the ordinary course of business, the following are the only material contracts entered into by the Company within the year ended December 31, 2019, or before that period but are still in effect:

1. Mining Agreement between Peal Mexico, S.A. de C.V. and Molimentales del Noroeste, S.A. de C.V. dated September 17, 2009 regarding mining operations, as amended. See “*Legal Proceedings and Regulatory Actions*” above.
2. Amended and Restated Stock Option Plan dated June 27, 2019, and the granting of stock options thereunder to directors, officers, employees and consultants of the Company. See “*Capital Structure - Options*” above.
3. Performance and Restricted Share Unit Plan dated September 12, 2017 respecting the granting of units to employees and officers of the Company and its subsidiaries. See “*Capital Structure - Restricted Share Units*” and “*Capital Structure - Performance Share Units*” above.
4. Deferred Share Unit Plan dated September 12, 2017 respecting the granting of units to non-executive directors and employees of the Company, redeemable in cash once vested, to align their interests with the long-term goals of the Company and to attract and retain high quality non-executive directors and employees.
5. Supplemental Warrant Indenture dated May 25, 2018 between Computershare Trust Company of Canada and the Company respecting the replacement of Rye Patch warrants with Company warrants. See “*General Development of the Business - Three Year History - 2018*” above.
6. Credit Agreement dated November 13, 2019 among the Company, Alio Gold (US) Inc., Rye Patch Mining US Inc., Florida Canyon Mining, Inc. and Sprott Private Resource Lending II (Collector), LP respecting a \$15 million US\$ credit facility. See “*General Development of the Business - Three Year History - 2019*” above.
7. Share Purchase Agreement dated March 5, 2020 between Timmins Goldcorp Mexico S.A. de C.V. (Timmins) and Magna Gold Corp. respecting the sale of all of the shares of Molimentales del Noroeste S.A. de C.V. held by Timmins. See “*General Development of the Business - Three Year History – Recent Developments*” above.

INTEREST OF EXPERTS

In May 2017, the Company filed the San Francisco Technical Report prepared by Micon. The San Francisco Technical Report is dated May 25, 2017, with an effective date of April 1, 2017. The Independent Qualified Persons (as defined by National Instrument 43-101) responsible for the San Francisco Technical Report are William J. Lewis, B.Sc., P.Geo., Ing. Alan J. San Martin, MAusIMM (CP), Mani Verma, P.Eng. and Richard M. Gowans, B.Sc., P.Eng. of Micon.

Messrs. Lewis, San Martin, Verma, Gowans and Micon International Ltd., are not known to the Company to have any registered or beneficial interest, direct or indirect, in any securities or other property of the Company or any of the Company's associates or affiliates.

In February 2019, the Company filed the Florida Canyon Report. The Florida Canyon Report is dated February 8, 2019, with an effective date of November 1, 2018. The Florida Canyon Report was prepared by Allan V. Moran, CPG, Timothy Carew, M.Sc., P. Geo., Kent Harley, PE, Justin Smith, PE, SME RM, Jeffrey Woods, SME RM, Mark Willow, M.Sc., C.E.M., SME RM, and Thomas Bagan, PE, MBA, SME RM, all of whom are independent Qualified Persons as defined in NI 43-101.

Messrs. Moran, Carew, Harley, Smith, Woods and Willow are not known to the Company to have any registered or beneficial interest, direct or indirect, in any securities or other property of the Company or any of the Company's associates or affiliates. Mr. Bagan holds 33,229 stock options in the Company.

Deloitte LLP is independent with respect to the Company within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of British Columbia and within the meaning of the Securities Act of 1933, as amended and the applicable rules and regulations thereunder adopted by the SEC and the standards of the Public Company Accounting Oversight Board.

AUDIT COMMITTEE INFORMATION

Audit Committee Charter

The text of the Company’s Audit Committee Charter is included as Appendix 1.

Composition of the Audit Committee and Relevant Education and Experience

The Company’s Audit Committee is comprised of David Whittle, Paula Rogers and George Brack, all of whom are “financially literate” within the meaning of applicable Canadian and U.S. securities laws. In the opinion of the Company’s board of directors, Mr. Whittle, Ms. Rogers and Mr. Brack are “independent” within the meaning of applicable Canadian and U.S. securities laws, including Rule 10A-3 of the Exchange Act of 1934, as amended (the “**Exchange Act**”) and the rules of the TSX and NYSE AMERICAN.

The Company’s Board of Directors has determined that David Whittle, Paula Rogers and George Brack are audit committee financial experts (as such term is defined in paragraph 8(b) of General Instruction B to Form 40-F) and are independent, as that term is defined by the Exchange Act and the NYSE AMERICAN’s corporate governance standards applicable to the Company.

The Securities and Exchange Commission has indicated that the designation of a person as an audit committee financial expert does not make such person an “expert” for any purpose, including without limitations for purpose of Section 11 of the Securities Act of 1933, as amended, does not impose on such person any duties, obligations or liability that are greater than those imposed on such person as a member of the Audit Committee and the Company’s board of directors in the absence of such designation and does not affect the duties, obligations or liability of any other member of the Audit Committee or the Company’s board of directors.

A summary of the relevant education and experience of each member of the Audit Committee is included in the table below.

Committee Member	Relevant Education and Experience
David Whittle -Director and Chair of the Audit Committee -Independent -Financially Literate -Financial Expert	Mr. Whittle is a Chartered Professional Accountant with over 25 years of senior executive experience in the mining industry, and has been responsible for strategic planning initiatives, operations and all aspects of corporate and financial management and administration. From 2004 to 2007, he was Chief Financial Officer of Hillsborough Resources Limited, and from 2007 through 2014 was both Chief Financial Officer and Company Ethics Officer of Alexco Resource Corp. Mr. Whittle has served as a director of a number of public companies over his career, primarily in the resource sector, with extensive experience on audit committees, compensation committees and special committees. He is currently on the board of Mountain Province Diamonds Inc., where he has been a director since 1997, for much of that time serving as Audit Committee Chair and Lead Outside Director. He served as Interim CEO of Mountain Province Diamonds Inc. from June 2017 to May 2018, leading the company through a chief executive transition and the refinancing of its senior debt facility, then resuming his role as an independent director. Mr. Whittle holds a Bachelor of Commerce (Finance) from the University of British Columbia.
Paula Rogers -Director and Chair of the Board of Directors -Independent -Financially Literate -Financial Expert	Ms. Rogers has over 20 years’ experience working for Canadian-based international public companies in the areas of corporate governance, treasury, mergers and acquisitions, financial reporting and tax. She has significant experience in the mining industry ranging from greenfields exploration to senior gold producers in both director and officer roles. Ms. Rogers has served as an officer of several public companies including Chief Financial Officer of Castle Peak Mining Ltd., Vice-President, Treasurer of Goldcorp Inc., Treasurer of Wheaton River Minerals Ltd. and Treasurer of Silver Wheaton Corp. Previous to that, she held various senior management roles at Finning International Inc. over a period of nine years. She is currently a Director and Chair of the Audit Committee of Diversity Royalty Corp. Ms. Rogers received her Bachelor of Commerce degree from the University of British Columbia in 1990. She became a member of the Institute of Chartered Accountants of British Columbia in 1993. From 1990 to 1994, Ms. Rogers was with Deloitte & Touche LLP (now Deloitte LLP), Chartered Accountants.

Committee Member	Relevant Education and Experience
George Brack -Director -Independent -Financially Literate -Financial Expert	Mr. Brack's over 30-year career in the mining industry has focused on exploration, corporate development and investment banking, specifically identifying, evaluating and executing strategic mergers and acquisitions, and raising equity capital. Until 2009, he was Managing Director and Industry Head, Mining at Scotia Capital. Prior to joining Scotia in 2006, he spent seven years as President of Macquarie North America Ltd., and led its northern hemisphere mining industry mergers and acquisitions and advisory business. Previously, Mr. Brack was the Vice President, Corporate Development at Placer Dome Inc., Vice President in the mining investment banking group at CIBC Wood Gundy and worked on the corporate team at Rio Algom Limited. Mr. Brack earned an MBA at York University, a B.A.Sc. in Geological Engineering and the CFA designation at the University of Toronto. He is currently the Chair and a Director of Capstone Mining Corp. and a Director of Wheaton Precious Metals Corp.

Pre-approval policies and procedures

All related services provided by the auditors, including non-audit services, are subject to pre-approval by the Audit Committee through established procedures. The Company's chief financial officer ("CFO") discusses proposed non-audit related services to be performed by Deloitte LLP ("**Deloitte**") with the Chair of the Audit Committee. If the amount is immaterial and will not otherwise interfere with the independence of the auditors, the Chair approves the services and the CFO reports to the Audit Committee on these services at the next regularly scheduled Audit Committee meeting. If the amount of the proposed services is material, a special Audit Committee meeting is convened to discuss the proposed service and the pre-approval is put to a vote. Management regularly updates the Audit Committee on the services rendered by the auditors.

The Audit Committee has reviewed other services provided by the auditors and has determined that they do not interfere with the independence of the auditors.

External auditor service fees

Deloitte has been the Company's external auditor since January 2008. The aggregate fees billed for professional services rendered by Deloitte for the year ended December 31, 2019, and the year ended December 31, 2018, in Canadian dollars were as follows:

	Year Ended December 31, 2019	Year Ended December 31, 2018
Audit fees(1)	C\$621,050	C\$717,500
Audit related fees(2)	nil	C\$5,000
Tax fees(3)	nil	nil
All other fees(4)	nil	nil
Total	C\$621,050	C\$722,500

Notes:

1. "Audit Fees" means the aggregate fees billed by the Company's external auditor for audit and interim review services.
2. "Audit Related Fees" means the aggregate fees billed for assurance and related services by the Company's external auditor that are reasonably related to the performance of the audit or review of the Company's financial statements and are not reported under "Audit Fees". The fees for the year ended December 31, 2018 primarily relate to required services provided in connection with a business acquisition report filed by the Company.
3. "Tax Fees" means the aggregate fees billed in each of the last two fiscal years for professional services rendered by the Company's external auditor for tax compliance, tax advice and tax planning.
4. "Other Fees" means the aggregate fees billed for products and services provided by the Company's external auditor, other than the services reported under "Audit Fees", "Audit-Related Fees" and "Tax Fees".

ADDITIONAL INFORMATION

Additional information relating to the Company's business is available on SEDAR at www.sedar.com or on the Company's website at www.aliogold.com.

Additional information, including directors' and officers' remuneration and indebtedness, the Company's principal shareholders, and securities authorized for issuance under equity compensation plans, if applicable, is contained in the management information circular prepared for the Annual and Special Meeting of Shareholders held on June 27, 2019 and available on SEDAR at www.sedar.com.

Additional financial information is provided in the Company's financial statements and Management Discussion and Analysis for the Company's most recently completed financial year and is available on SEDAR at www.sedar.com or on the Company's website at www.aliogold.com.

APPENDIX 1
AUDIT COMMITTEE MANDATE

1. Introduction

The Audit Committee (the “**Audit Committee**”) of Alio Gold, Inc. (the “**Company**”) is a committee of the Board of Directors (the “**Board**”) of the Company. The Committee shall oversee the accounting and financial reporting practices of the Company and the audits of the Company’s financial statements and exercise the responsibilities and duties set out in this mandate (the “**Mandate**”).

2. Membership

Number of Members

The Committee shall be composed of three or more members of the Board.

Independence of Members

Each member of the Committee must be independent, subject to any exemptions or relief that may be granted from such requirement. “Independent” shall have the meaning, as the context requires, given to it in National Instrument 52-110 *Audit Committees*, and Rule 10A-3 of the Exchange Act of 1934, as may be amended from time to time.

Chair

At the time of the annual appointment of the members of the Audit Committee, the Board shall appoint a chair of the Audit Committee (the “Chair”). The Chair shall be a member of the Audit Committee, preside over all Audit Committee meetings, coordinate the Audit Committee’s compliance with this Mandate, work with management to develop the Audit Committee’s annual work-plan and provide reports of the Audit Committee to the Board.

Financial Literacy of Members

At the time of his or her appointment to the Committee, each member of the Committee shall have, or shall acquire within a reasonable time following appointment to the Committee, the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Company’s financial statements.

Financial Expertise of Members

At least one member of the Audit Committee shall be an “audit committee financial expert” as defined in paragraph 8(b) of General Instruction B to the United States Securities and Exchange Commission Form 40-F. An audit committee financial expert means a person who has the following attributes:

- (a) an understanding of generally accepted accounting principles and financial statements;
- (b) the ability to assess the general application of such principles in connection with the accounting for estimates, accruals and reserves;
- (c) experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the Company’s financial statements, or experience actively supervising one or more persons engaged in such activities;
- (d) an understanding of internal controls over financial reporting;
- (e) an understanding of audit committee functions.

Term of Members

The members of the Committee shall be appointed annually by the Board. Each member of the Committee shall serve at the pleasure of the Board until the member resigns, is removed, or ceases to be a member of the Board. Unless a Chair is elected by the Board, the members of the Committee may designate a Chair by majority vote of the full Committee membership.

3. Meetings

Number of Meetings

The Committee may meet as many times per year as necessary to carry out its responsibilities.

Quorum

No business may be transacted by the Committee at a meeting unless a quorum of the Committee is present. A majority of members of the Committee shall constitute a quorum.

Calling of Meetings

The Chair, any member of the Audit Committee, the external auditors, the Board Chair, the Chief Executive Officer or the Chief Financial Officer may call a meeting of the Audit Committee by notifying the Company's Corporate Secretary who will notify the members of the Audit Committee. The Chair shall chair all Audit Committee meetings that he or she attends, and in the absence of the Chair, the members of the Audit Committee present may appoint a chair from their number for a meeting.

Minutes; Reporting to the Board

The Committee shall maintain minutes or other records of meetings and activities of the Committee in sufficient detail to convey the substance of all discussions held. Upon approval of the minutes by the Committee, the minutes shall be posted on the Company's board meeting management system. However, the Chair may report orally to the Board on any matter in his or her view requiring the immediate attention of the Board.

Attendance of Non-Members

The external auditors are entitled to attend and be heard at each Audit Committee meeting. In addition, the Committee may invite to a meeting any directors, officers or employees of the Company, legal counsel, advisors and other persons whose attendance it considers necessary or desirable in order to carry out its responsibilities. At least once per year, the Committee shall meet with the internal auditor and management in separate sessions to discuss any matters that the Committee or such individuals consider appropriate.

Meetings without Management

The Committee shall hold unscheduled or regularly scheduled meetings, or portions of meetings, at which management is not present.

Procedure

The procedures for calling, holding, conducting and adjourning meetings of the Committee shall be the same as those applicable to meetings of the Board.

Access to Management

The Committee shall have unrestricted access to the Company's management and employees and the books and records of the Company.

4. Duties and Responsibilities

The Committee shall have the duties and responsibilities set out below as well as any other duties that are specifically delegated to the Committee by the Board and that the Board is authorized to delegate by applicable laws and regulations. In addition to these duties and responsibilities, the Committee shall perform the duties required of an audit committee by any exchange upon which securities of the Company are traded, or any governmental or regulatory body exercising authority over the Company, as are in effect from time to time (collectively, the “**Applicable Requirements**”).

Financial Reports

(a) General

The Audit Committee is responsible for overseeing the Company’s financial statements and financial disclosures. Management is responsible for the preparation, presentation and integrity of the Company’s financial statements and financial disclosures and for the appropriateness of the accounting principles and the reporting policies used by the Company. The auditors are responsible for auditing the Company’s annual consolidated financial statements and for reviewing the Company’s unaudited interim financial statements.

(b) Review of Annual Financial Reports

The Audit Committee shall review the annual consolidated audited financial statements of the Company, the auditors’ report thereon and the related management’s discussion and analysis of the Company’s financial condition and results of operation (“**MD&A**”). After completing its review, if advisable, the Audit Committee shall approve and recommend for Board approval the annual financial statements and the related MD&A.

(c) Review of Interim Financial Reports

The Audit Committee shall review the interim consolidated financial statements of the Company, the auditors’ review report thereon and the related MD&A. After completing its review, if advisable, the Audit Committee shall approve and recommend for Board approval the interim financial statements and the related MD&A.

(d) Review Considerations

In conducting its review of the annual financial statements or the interim financial statements, the Audit Committee shall:

- (i) meet with management and the auditors to discuss the financial statements and MD&A;
- (ii) review the disclosures in the financial statements;
- (iii) review the audit report or review report prepared by the auditors;
- (iv) discuss with management, the auditors and internal legal counsel (if any), as requested, any litigation claim or other contingency that could have a material effect on the financial statements;
- (v) review the accounting policies followed and critical accounting and other significant estimates and judgements underlying the financial statements as presented by management;
- (vi) review any material effects of regulatory accounting initiatives or off-balance sheet structures on the financial statements as presented by management, including requirements relating to complex or unusual transactions, significant changes to accounting principles and alternative treatments under International Financial Reporting Standards (IFRS);

- (vii) review any material changes in accounting policies and any significant changes in accounting practices and their impact on the financial statements as presented by management;
- (viii) review management's report on the effectiveness of internal controls over financial reporting;
- (ix) review the factors identified by management as factors that may affect future financial results;
- (x) review results of the Company's audit committee whistleblower hotline program; and
- (xi) review any other matters, related to the financial statements, that are brought forward by the auditors, management or which are required to be communicated to the Audit Committee under accounting policies, auditing standards or Applicable Requirements.

(e) Approval of Other Financial Disclosures

The Audit Committee shall review and, if advisable, approve and recommend for Board approval financial disclosure in prospectuses or other securities offering document of the Company, press releases disclosure based upon financial results of the Company and any other material financial disclosure, including financial guidance provided to analysts, rating agencies or otherwise publicly disseminated.

Auditors

(a) General

The Audit Committee shall be responsible for oversight of the work of the auditors, including the auditors' work in preparing or issuing an audit report, performing other audit, review or attest services or any other related work.

(b) Nomination and Compensation

The Audit Committee shall review and, if advisable, select and recommend for Board approval the external auditors to be nominated and the compensation of such external auditor. The Audit Committee shall have ultimate authority to approve all audit engagement terms and fees, including the auditors' audit plan.

(c) Resolution of Disagreements

The Audit Committee shall resolve any disagreements between management and the auditors as to financial reporting matters brought to its attention.

(d) Discussions with Auditors

At least annually, the Audit Committee shall discuss with the auditors such matters as are required by applicable auditing standards to be discussed by the auditors with the Audit Committee.

(e) Audit Plan

At least annually, the Audit Committee shall review a summary of the auditors' annual audit plan. The Audit Committee shall consider and review with the auditors any material changes to the scope of the plan.

(f) Quarterly Review Report

The Audit Committee shall review a report prepared by the auditors in respect of each of the interim financial statements of the Company.

(g) Independence of Auditors

At least annually, and before the auditors issue their report on the annual financial statements, the Audit Committee shall obtain from the auditors a formal written statement describing all relationships between the auditors and the Company; discuss with the auditors any disclosed relationships or services that may affect the objectivity and independence of the auditors; and obtain written confirmation from the auditors that they are objective and independent within the meaning of the applicable Rules of Professional Conduct/Code of Ethics adopted by the provincial institute or order of chartered accountants to which the auditors belong and other Applicable Requirements. The Audit Committee shall take appropriate action to oversee the independence of the auditors.

(h) Evaluation and Rotation of Lead Partner

At least annually, the Audit Committee shall review the qualifications and performance of the lead partner(s) of the auditors and determine whether it is appropriate to adopt or continue a policy of rotating lead partners of the external auditors.

(i) Requirement for Pre-Approval of Non-Audit Services

The Audit Committee shall approve in advance any retainer of the auditors to perform any non-audit service to the Company that it deems advisable in accordance with Applicable Requirements and Board approved policies and procedures. The Audit Committee may delegate pre-approval authority to a member of the Audit Committee. The decisions of any member of the Audit Committee to whom this authority has been delegated must be presented to the full Audit Committee at its next scheduled Audit Committee meeting.

(j) Approval of Hiring Policies

The Audit Committee shall review and approve the Company's hiring policies regarding partners, employees and former partners and employees of the present and former external auditors of the Company.

(k) Communication with Internal Auditor

The internal auditor shall report regularly to the Committee. The Committee shall review with the internal auditor any problem or difficulty the internal auditor may have encountered including, without limitation, any restrictions on the scope of activities or access to required information, and any significant reports to management prepared by the internal auditing department and management's responses thereto.

The Committee shall periodically review and approve the mandate, plan, budget and staffing of the internal audit department. The Committee shall direct management to make changes it deems advisable in respect of the internal audit function.

The Committee shall review the appointment, performance and replacement of the senior internal auditing executive and the activities, organization structure and qualifications of the persons responsible for the internal audit function.

(l) Financial Executives

The Committee shall review and discuss with management the appointment of key financial executives and recommend qualified candidates to the Board, as appropriate.

Internal Controls**(a) General**

The Audit Committee shall review the Company's system of internal controls.

(b) Establishment, Review and Approval

The Audit Committee shall require management to implement and maintain appropriate systems of internal controls in accordance with Applicable Requirements, including internal controls over financial reporting and disclosure and to review, evaluate and approve these procedures. At least annually, the Audit Committee shall consider and review with management and the auditors:

- (i) the effectiveness of, or weaknesses or deficiencies in: the design or operation of the Company's internal controls (including computerized information system controls and security), the overall control environment for managing business risks, accounting, financial and disclosure controls (including, without limitation, controls over financial reporting), non-financial controls, legal and regulatory controls, and the impact of any identified weaknesses in internal controls on management's conclusions;
- (ii) any significant changes in internal controls over financial reporting that are disclosed, or considered for disclosure, including those in the Company's periodic regulatory filings;
- (iii) any material issues raised by any inquiry or investigation by the Company's regulators;
- (iv) the Company's fraud prevention and detection program, including deficiencies in internal controls that may impact the integrity of financial information, or may expose the Company to other significant internal or external fraud losses and the extent of those losses and any disciplinary action in respect of fraud taken against management or other employees who have a significant role in financial reporting; and
- (v) any related significant issues and recommendations of the auditors together with management's responses thereto, including the timetable for implementation of recommendations to correct weaknesses in internal controls over financial reporting and disclosure controls.

Compliance with Legal and Regulatory Requirements

The Audit Committee shall review reports from the Company's Corporate Secretary and other management members on: legal or compliance matters that may have a material impact on the Company; the effectiveness of the Company's compliance policies; and any material communications received from regulators. The Audit Committee shall review management's evaluation of and representations relating to compliance with specific applicable law and guidance, and management's plans to remediate any deficiencies identified.

Insurance Programs

The Audit Committee shall review reports from management of the Company with respect to corporate insurance programs and policies and approve or recommend to the Board for approval the adoption or amendment of any insurance policies.

Audit Committee Hotline Whistleblower Procedures

The Audit Committee shall establish a written whistleblower policy for (a) the receipt, retention, and treatment of complaints received by the Company regarding accounting, internal accounting controls, or auditing matters as well as non-accounting and non-auditing matters; and (b) the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters as well as non-accounting and non-auditing matters. Any complaints or concerns that are received shall be reviewed by the Compliance Officer(s) appointed under the whistleblower policy. If the Compliance Officer(s) determine that the matter requires further investigation, they will direct the Chair of the Audit Committee to engage outside advisors, as necessary or appropriate, to investigate the matter and will work with the outside advisors and general counsel to reach a satisfactory conclusion.

Expenditure and Authorization Limits Policy

The Audit Committee shall annually review, and if applicable update, the Company's Expenditure and Authorization Limits Policy.

Audit Committee Disclosure

The Audit Committee shall prepare, review and approve any audit committee disclosures required by Applicable Requirements in the Company's disclosure documents.

Delegation

The Audit Committee may, to the extent permissible by Applicable Requirements, designate a sub-committee to review any matter within this mandate as the Audit Committee deems appropriate.

5. Independent Advisors

The Audit Committee shall have the authority to retain external legal counsel, consultants or other advisors to assist it in fulfilling its responsibilities and to set and pay the respective compensation for these advisers without consulting or obtaining the approval of the Board or any Company officer. The Company shall provide appropriate funding, as determined by the Audit Committee, for the services of these advisors.

6. No Rights Created

This Mandate is a statement of broad policies and is intended as a component of the flexible governance framework within which the Audit Committee functions. While it should be interpreted in the context of all applicable laws, regulations and listing requirements, as well as in the context of the Company's Notice of Articles and Articles, it is not intended to establish any legally binding obligations.

7. Mandate Review

The Committee shall review and update this Mandate annually and present it to the Board for approval.

Adopted: November 6, 2019