



ANNUAL INFORMATION FORM

Year ended December 31, 2017

March 14, 2018

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

FORWARD-LOOKING STATEMENTS

Certain statements 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, production, exploration and reserves and resources, projected production at the Company’s San Francisco Property (as defined below) and Ana Paula Project (as defined below), including estimated internal rate of return and projected production, exploitation activities and potential, future operations, projected operational updates to the Ana Paula Project (as defined below), expectations regarding environmental studies at the Ana Paula Project (as defined below), expectations regarding permitting at the Ana Paula Project (as defined below) 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 it constitutes a prediction 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 assumptions, including: 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 Ana Paula Project; that mineral resources can be developed as planned; interest and exchange rates; that required financing and permits will be obtained; 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 associated with doing business in Mexico; maintaining compliance with governmental regulations and expenses associated with such compliance; ability to hire, train, deploy and manage qualified personnel in a timely manner; ability to obtain or renew required government permits; 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; risks associated with expansion and development of mining properties; currency exchange rate fluctuations; directors’ and officers’ conflicts of interest; inability to access additional capital; problems integrating new acquisitions and other problems with strategic transactions; legal proceedings; uncertainties related to the repatriation of funds from foreign subsidiaries; 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.

MINERAL RESERVE AND RESOURCE ESTIMATES AND NOTICE TO U.S. READERS

The Company is subject to the reporting requirements of the applicable Canadian securities laws, and as a result reports mineral reserves and resources according to Canadian standards. Canadian reporting requirements for disclosure of mineral properties are governed by National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("**NI 43-101**"). The definitions of NI 43-101 are adopted from those given by the Canadian Institute of Mining, Metallurgy and Petroleum ("**CIM**"). U.S. reporting requirements are governed by Industry Guide 7 ("**Guide 7**") of the Securities and Exchange Commission (the "**Commission**"). These reporting standards have similar goals in terms of conveying an appropriate level of confidence in the disclosures being reported, but embody different approaches and definitions. For example, under Industry Guide 7, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. We report "resources" in accordance with NI 43-101. While the terms "Mineral Resource," "Measured Mineral Resource," "Indicated Mineral Resource" and "Inferred Mineral Resource" are recognized and required by Canadian regulations, they are not defined terms under standards of the Commission and generally, U.S. companies are not permitted to report resources in documents filed with the Commission. As such, certain information contained in this AIF concerning descriptions of mineralization and resources under Canadian standards is not comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements of the Commission. In addition, an Inferred Mineral Resource are conceptual in nature, and are estimated based on limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. While an Inferred Resources has a lower level of confidence than that applying to an Indicated Mineral Resource, it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to a Indicated Mineral Resources with continued exploration. Inferred Mineral Resource cannot be converted to Mineral Reserve and are not used in Pre-feasibility and Feasibility level studies. In addition, the definitions of "Proven Mineral Reserves" and "Probable Mineral Reserves" under CIM standards differ in certain respects from the standards of the Commission.

SHARE CONSOLIDATION

On May 12, 2017, the Company effected a consolidation of its outstanding shares on a 10:1 basis. 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.

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 noon and daily average rate of exchange, as applicable, as reported by the Bank of Canada:

	Twelve Months Ended December 31		
	2017	2016	2015
Average rate for period.....	0.7701	0.7550	0.7821
Rate at end of period.....	0.7971	0.7448	0.7225
High for period	0.8245	0.7977	0.8511
Low for period.....	0.7276	0.6869	0.7161

The daily average rate of exchange on March 14, 2018, as reported by the Bank of Canada for the conversion of Canadian dollars into United States dollars was C\$1.00 equals \$0.7726.

CORPORATE STRUCTURE

Name, Address and Incorporation

The Company was incorporated pursuant to the *Business Corporations Act* (British Columbia) 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 is located at Suite 507 – 700 West Pender Street, Vancouver, British Columbia, V6C 1G8. The Company’s registered and records office is located at Blake, Cassels & Graydon LLP, 595 Burrard Street, Suite 2600, Vancouver, BC V7X 1L3. The Company’s subsidiary office in Mexico is located at Blvd. Solidaridad #335 A, Local 3, Col Las Palmas, Hermosillo, Sonora, Mexico, 83270. The subsidiary also maintains a field office at the San Francisco Property (as defined under “*General Development of the Business – Overview*” below), near Estacion Llano, Sonora.

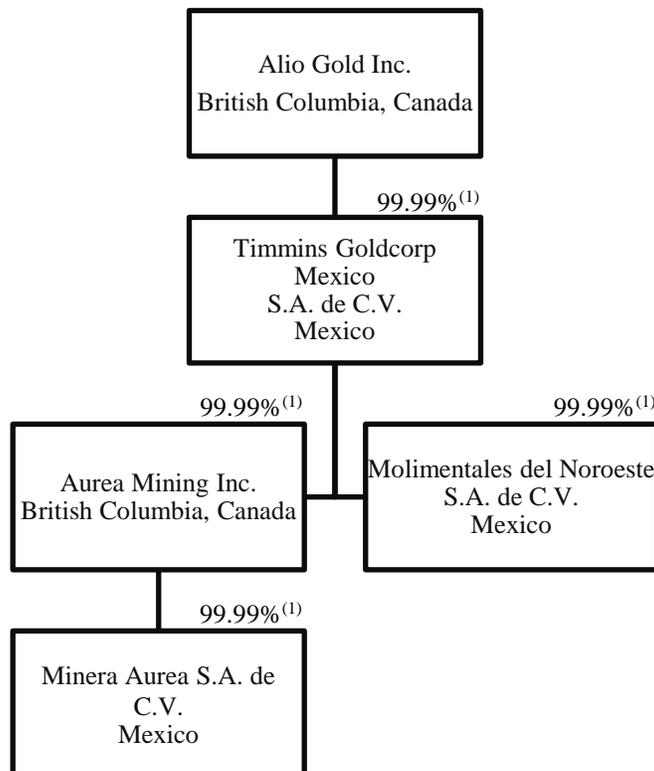
Intercorporate Relationships

The Company had five subsidiaries: Timmins Goldcorp Mexico, S.A. de C.V. (“**Timmins Mexico**”), Molimentales del Noroeste, S.A. de C.V. (“**Molimentales**”), Newstrike Capital Inc. (“**Newstrike**”), Aurea Mining Inc. (“**Aurea**”) and Minera Aurea, S.A. de C.V. (“**Minera Aurea**”). All subsidiaries are wholly owned except for nominal shareholders holding one share in each of the Mexican subsidiaries. Timmins Mexico was incorporated pursuant to the laws of Mexico on March 23, 2005 and is the entity through which the Company conducts its Mexican operations, except for its operations in Guerrero, Mexico. Molimentales was acquired on March 20, 2007, and was incorporated pursuant to the laws of Mexico for the principal purpose of holding the mineral concessions and infrastructure that constitute the San Francisco Mine (as defined below). In May 2015 the Company acquired all of the outstanding shares of Newstrike. Newstrike was incorporated pursuant to the *Business Corporations Act* (Alberta) on November 7, 2000 under the name “Erez Inc.”. The name was changed to MCS Global Corp. on June 20, 2003. On April 21, 2006 MCS Global Corp. continued to British Columbia under the *Business Corporations Act* (British Columbia) and changed its name to “Newstrike Capital Inc.” on May 5, 2006. In 2008 Newstrike, acquired all of the outstanding shares of Aurea. Aurea was incorporated pursuant to the *Business Corporations Act* (British Columbia). Aurea holds all but one of the outstanding shares of Minera Aurea which was incorporated pursuant to the laws of Mexico on March 22, 2004. Minera Aurea owns the Ana Paula gold project in Guerrero, Mexico.

In September 2017, the Company began a process of restructuring its subsidiaries to simplify the Company's corporate organizational structure. The Company and its subsidiaries completed the following series of transactions in October 2017:

- (a) A new, wholly-owned, Canadian subsidiary of the Company was formed ("NewCo");
- (b) The Company then sold all of the issued and outstanding common shares of Newstrike to NewCo, resulting in Newstrike becoming a wholly-owned subsidiary of NewCo;
- (c) Aurea amalgamated with its parent company, Newstrike, with the effect that the two companies continued as one company, except that the legal existence of Aurea did not cease, and Aurea was deemed to have survived the amalgamation, becoming a wholly-owned subsidiary of NewCo;
- (d) Aurea then performed a similar amalgamation with its subsequent parent company, NewCo, with the effect that the two companies continued as one company, except that the legal existence of Aurea did not cease, and Aurea was deemed to have survived the amalgamation, becoming a wholly-owned subsidiary of Alio Gold; and,
- (e) The Company then sold all but one of the issued and outstanding common shares of Aurea to Timmins Mexico.

The reorganization did not involve any change in the Company's business, management, Board, facilities, assets or liabilities and there were no dispositions or transfers of title of Aurea's assets. The Company's current corporate structure is included below:



⁽¹⁾ The Company is the registered owner of 99.99% of the shares. The remaining 0.01% of the shares are held by nominal shareholders.

GENERAL DEVELOPMENT OF THE BUSINESS

Overview

The Company is a publicly traded gold producer engaged in the operation, development, exploration and acquisition of resource properties, primarily in Mexico. The Company owns and operates the San Francisco open pit gold mine (the “**San Francisco Mine**”), which together with the associated La Chicharra open pit gold mine, and additional exploration claims in and around the mines (collectively, the “**San Francisco Property**”) consists of approximately 53,380 hectares of surface area in the state of Sonora, Mexico. The term San Francisco Project refers to the area within the exploitation or mining concessions controlled by the Company (the “**San Francisco Project**”). In addition, the Company is developing the Ana Paula property in the state of Guerrero, Mexico (the “**Ana Paula Project**”). The Company’s goal is to become an intermediate gold producer through developing and/or acquiring assets.

Locations of the Company’s Assets



Three Year History

Recent Developments

On May 12, 2017, the Company effected a consolidation of its outstanding shares on a 10:1 basis. 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.

2015

On May 26, 2015, the Company completed a plan of arrangement (“**Arrangement**”) with Newstrike, owner of the Ana Paula Project, pursuant to which the Company acquired all of the issued and outstanding common shares of Newstrike by way of a court approved plan of arrangement. Under the terms of the Arrangement, Newstrike shareholders received 0.9 of a common share (“**Exchange Ratio**”) and C\$0.0001 in cash for each Newstrike common share (a “**Newstrike Share**”). In addition, each outstanding option to purchase a Newstrike Share was exchanged for an option to purchase a common share of the Company, based upon the Exchange Ratio.

In July 2015, the Company commenced a drill program at its Ana Paula Project designed to confirm the drilling of previous owners and carry out select infill drilling. The program consisted of 2,000 m in ten core holes. The results of this drilling were consistent with those from previous drill programs and helped to increase the confidence of the block model via increased drill density at the core of the deposit.

In July 2015, the Company drifted into underground veins parallel to the south wall of the San Francisco pit. The drift was part of a pilot phase designed to test mining and processing of the underground ore. Previous drilling had delineated three mineralized veins near the south wall of the San Francisco pit located within 50 to 100 m of the current south pit wall. The pilot phase involved drifting 90 m into the south wall of the pit to access the veins followed by 200 m of lateral drifting to extract a bulk sample of ore. The pilot phase allowed the Company to test ground conditions, mining costs, grade and metallurgical recovery of the underground ore. The program was put on hold during the third quarter of 2015 due to the depressed gold price. The program provided useful information. The Company continues to evaluate the underground potential at the San Francisco Property, however it is not a priority at this time.

On October 6, 2015, the Company’s employment agreement with Bruce Bragagnolo ended. Mr. Bragagnolo resigned as a director of the Company and was replaced by Mark Backens as Interim CEO.

On November 2, 2015, the Company acquired a process plant and select auxiliary equipment (“**Plant**”) used by Goldcorp Inc. (“**Goldcorp**”) in the operation of its El Sauzal Mine in Chihuahua, Mexico (“**Plant Acquisition**”). The El Sauzal Mine was operational until December 2014 when Goldcorp began its closure. The Plant was acquired by the Company for future use at the Ana Paula Project.

The total purchase price of C\$8.0 million consisted of the following:

- (a) C\$1.0 million in cash paid on closing;
- (b) C\$3.0 million which was satisfied by the issuance of 10 million shares in the capital of the Company at a price of C\$0.30 per share on closing; and
- (c) C\$4.0 million in cash payable to Goldcorp one year from closing.

The closing of the Plant Acquisition was subject to, among other things, the completion of a C\$6.0 million investment by Goldcorp in the Company by way of a non-brokered private placement of 20 million units of the Company (“**Private Placement**”) at a price of C\$0.30 per unit. Each unit consisted of one share and one half of a warrant, each whole warrant being exercisable for a term of 24 months into a common share of the Company at a price of C\$0.35 per share. The warrants are subject to an accelerated exercise period of 10 days if the Company's closing share price meets or exceeds C\$0.60 per share for 20 consecutive trading days. As a result of the Plant Acquisition and Private Placement, Goldcorp, upon closing of both transactions, held approximately 9.9% of the Company's issued and outstanding common shares on an undiluted basis. During the fourth quarter of 2015 the demobilization of the El Sauzal Mine began and approximately 15% of the total demobilization was complete by December 31, 2015.

On November 2, 2015, the Company announced that, assuming the gold price retained in its then current range of approximately \$1,000 per gold ounce over the next year, open pit operations would cease at the San Francisco Mine in the second half of 2016, at which point the mine would be placed on care and maintenance. Heap leach operations would continue through early 2017. Full operations could then resume if and when gold prices returned to higher levels. The focus of the 2016 mine-out was to mine the highest margin ounces to maximize free cash flow during that period.

On December 31, 2015, the Company announced that it had agreed to an extension to January 31, 2016, of its existing \$10.2 million credit facility with Sprott Resource Lending Partnership (“**Sprott**”) and Morgan Stanley Capital Group Inc. In consideration of the extension, the Company paid a fee to Sprott as administrative agent in the amount of \$150,000. On January 26, 2016, the credit facility was amended to replace Morgan Stanley Capital Group Inc. with Goldcorp (together with Sprott, the “**Lenders**”) and to extend the maturity date to June 30, 2016. Interest was payable monthly at the rate of 12% per annum. In consideration of the re-financing the Company paid a \$408,901 bonus to the Lenders. The bonus was payable in cash or shares at the option of each Lender, in relation to its proportion of the credit facility, on the earlier of the repayment and June 30, 2016.

2016

In June 2016, the Company repaid its \$10.2 million credit facility with the Lenders. A cash bonus of \$204,450 was paid to Sprott and a cash bonus of \$70,416 was paid and 550,000 common shares were issued to Goldcorp pursuant to the terms of the credit agreement.

The Company repaid its C\$2.0 million loan from Zebra Holdings and Investments S.à.r.l. and Lorito Holdings S.à.r.l. in June 2016.

In June 2016, the Company completed the demobilization of the El Sauzal Mine acquired in September 2015. The final C\$4.0 million payment to Goldcorp was made in October 2016 in accordance with the terms of the agreement.

Darren Prins resigned as Chief Financial Officer of the Company in June 2016.

On July 20, 2016, the Company completed the sale of the Caballo Blanco Project in Veracruz, Mexico (which the Company originally acquired in December 2014) to Candelaria Mining Corp. Consideration for the sale was \$12.5 million cash and the assumption of the \$5.0 million contingent payment.

In August 2016, the Company announced a new mine plan for its San Francisco Mine which included extended operations into 2023.

In August 2016, the Company announced the commencement of pre-construction activities at the Ana Paula Project including feasibility work, infill drilling, metallurgical test-work and environmental baseline and permitting activities.

The estimated budget for the pre-construction program is approximately \$9.2 million and includes:

- (a) \$2.2 million - Drilling, including soil sampling and trenching; 10,000 meters of core drilling for resource definition, 2,000 meters of core drilling for geotechnical work, and 4,000 meters of reverse circulation (“RC”) drilling for condemnation;
- (b) \$3.4 million - Feasibility work program; and
- (c) \$3.6 million - Environmental studies and construction permits.

On November 30, 2016, the Company closed a bought deal offering of 36,400,000 units of the Company (the “Units”), at a price C\$0.55 per Unit for gross proceeds to the Company of approximately C\$20.0 million. The Units were issued in a public offering in all of the provinces of Canada, other than Québec, pursuant to a short form prospectus dated November 28, 2016. The financing was underwritten by a syndicate of underwriters led by National Bank Financial Inc. and RBC Capital Markets and included BMO Nesbitt Burns Inc., PI Financial Inc., Scotia Capital Inc. and TD Securities Inc. Each Unit consists of one common share of the Company and one-half of one common share purchase warrant (each whole common share purchase warrant, a “Warrant”). Each Warrant entitles the holder to acquire one common share at a price of C\$0.70 at any time prior to May 30, 2018. The proceeds of the offering are intended to be used for exploration and preconstruction activities at the Ana Paula Project and for working capital purposes.

2017

Effective February 1, 2017, Greg McCunn was appointed Chief Executive Officer of the Company replacing Interim Chief Executive Officer Mark Backens. Mr. McCunn also joined the Company’s board of directors.

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 April 25, 2017, the Company announced additional changes to its management team, as follows:

- Colette Rustad was appointed as Executive Vice President and Chief Financial Officer;
- Jose Hector Figueroa was appointed as Vice President of Operations;
- Paul Hosford was appointed as Vice President of Project Development;
- Jason Gregg was appointed as Executive Vice President of Human Resources;
- Miguel Bonilla was promoted to Country Manager Mexico; and,
- Arturo Bonillas resigned as President of the Company.

On May 11, 2017, the Company announced the revitalization plan for the San Francisco Property, and subsequently filed the updated San Francisco Report (as defined below) on May 26, 2017. On May 16, 2017, the Company announced the results of a preliminary feasibility study on its Ana Paula Project, and subsequently filed the updated Ana Paula Report (as defined below) on May 26, 2017, and a further revised version of the Ana Paula Report on June 12, 2017, which incorporated non-material changes to the previously filed version. In July 2017, a definitive feasibility study (“DFS”) in respect of the Ana Paula Project commenced.

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 TSX and NYSE AMERICAN on May 16, 2017 under the ticker symbol ALO.

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 has resulted in increased mining flexibility and the ability to deliver consistent ore feed to the leach pads. The main pit is now open across multiple mining faces as the ramp-up of pre-stripping reached sustainable and planned levels toward the end of 2017.

On July 6, 2017, the company also announced the appointment of Lynette Gould as Vice President of Investor Relations of the Company effective July 5, 2017.

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 Unit consists 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 entitles 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 are intended to be used by the Company to advance the Ana Paula project and for general corporate purposes.

On September 1, 2017, Anthony Hawkshaw retired from the board of directors.

On September 18, 2017, the Company announced that the board of directors of the Company had formally approved and underground exploration decline and exploration program at its Ana Paula Project. The Company also received authorization to start construction of the decline from Mexico’s Secretary of Environment and Natural Resources. The Company also 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.

On October 19, 2017, the Company announced that Goldcorp exercised its warrants that expire on October 19, 2017, for total proceeds of C\$3.5 million. The Company has also exercised a buyback right from Goldcorp of a 1% net smelter royalty of its Ana Paula Project for US\$2.9 million.

On October 26, 2017, the Company announced that it had awarded the contract for developing the underground decline at the Ana Paula Project. The Company has engaged JDS Energy and Mining to manage the contract and underground mining operation.

On December 4, 2017, the Company provided an exploration update from the Ana Paula Project and announced the completion of the 2,000 metre drill program to twin previous drill holes within the pre-feasibility pit for metallurgical test work samples. The Company also announced that it initiated a surface drill program to target the high-grade breccia below the pre-feasibility pit. Drilling, consisting of six drill holes of 600 to 700 meters each is currently being undertaken on a 24x7 basis with one drill rig. This extension will be further tested from drilling underground, which is expected to commence in the third quarter of 2018, consisting of 55 diamond drill holes (12,000 meters), including geochemical sampling and assaying. Construction of the decline commenced in December, 2017, with the mine portal site prepared and under construction. The decline is expected to reach the mineralized area during the third quarter of 2018, in time for drilling. The drill program is expected to confirm the continuity and shape of the high-gold mineralization below the proposed pit that is hosted in the breccia and it will also explore the gold mineralization indications at depth hosted in hornfels skarn, typical of the Guerrero Gold Belt. The explosives magazine site has been completed and surface infrastructure including offices and workshops have been installed to support mining. A 100 person camp was ordered in December 2017 and is currently being fabricated off-site. The permit for the camp site was received in February 2018 and the camp is expected to be fully-functional in April 2018.

In addition to exploration at the Ana Paula Project, the Company continued to advance its DFS during 2017. The DFS is using the same group of consultants for continuity, and will be based on the updated mineral resource estimate and mine plan as well as additional metallurgical testing.

During 2017, the DFS was advanced significantly to derisk the project in the last half of 2017, including:

- (a) Additional metallurgical testwork. The testwork indicates that a significant amount of arsenic is leached in the ambient oxidization process. Arsenic removal technology has been identified and tested. Comminution and flotation optimization testwork has also been completed, which indicated that the ore hardness is similar to that indicated in the Ana Paula Report (defined below).
- (b) A field program of geological mapping, borehole drilling and seismic evaluation to characterize the ground conditions for the tailings, waste dump and plant site areas. The geotechnical program identified that the ground conditions in the area of the proposed Ana Paula Report (defined below) tailings dam embankment and the plant site areas are not favourable and a number of trade-off studies were initiated to investigate new locations or configurations for these facilities. Additional trade-off studies were also initiated to evaluate a number of tailings storage options to cost effectively manage arsenic bearing tailings material to meet water quality criteria. These studies and subsequent water balance and quality modelling are in progress and further drilling is needed to confirm the hydrogeology at the tailings site.
- (c) Offsite infrastructure development. A System Impact Study and a Facilities Study are underway to confirm the point of connection to grid power and the costs of connection, respectively. The access road was upgraded to improve road conditions and travel time, and a route accessing the project site via existing roads from the north has been delineated. Minor upgrades were completed on the northern route to allow access to site for the underground mining equipment, camp and support facilities. Further road widening is underway and it is expected that construction of bypass roads will be required for permanent operation.

The initial scope of the DFS was initially contemplated to be similar to the Ana Paula Report (defined below) in that it contemplated an open-pit mine with a processing plant producing approximately 116,000 ounces of gold per year for 8 years. The Company announced on February 21, 2018 that it is currently evaluating a change in scope to the DFS which would include an underground mine component, and will incorporate results from the underground exploration drilling. The addition of the underground mine has the potential to enhance the Ana Paula Project for several reasons:

- (a) Previous drilling has confirmed that the mineralization extents approximately 300 meters below the proposed pit. Increased drilling has the potential to add further Mineral Resources below the proposed pit.
- (b) The processing plant that is expected to be used for processing ore at the Ana Paula Project previously operated at 6,000 tonnes per day. The basis for the Ana Paula Report for the project is 5,000 tonnes per day of ore being mined from an open pit mine as the geometry of the pit limits ore production. If additional ore can be provided from the underground mine, the production profile and the unit costs of production could be enhanced.
- (c) The current open pit design envisions three distinct phases, with the final phase involving a significant push-back of the pit walls to allow deeper mining from surface. It is likely that the third phase of the proposed pit could be more efficiently mined from underground, improving the economics of the project by a reduction in waste movement from surface.
- (d) An underground mining operation could also enhance the project by allowing for the tailings from the ambient oxidization process to be stored underground as back-fill. This would eliminate the need for additional surface tailings facilities and allowing the inert flotation tailings to be stored on surface in an unlined tailings storage facility.

The Company anticipates that, upon completion of the DFS, the DFS will provide a higher level of confidence in the project economics than the Ana Paula Report (defined below) and allow the Company to make an investment decision whether to proceed with construction of the project as well as provide technical support for potential debt financing. The Company has commenced discussions on financing alternatives for the Ana Paula Project, and a number of proposals were received and reviewed. The Company will pursue a financing package with a balance of the lowest overall cost, the least restrictive covenants and the flexibility to allow the Company to pursue its growth strategy. In the fourth quarter of 2017, opportunities to reduce capital expenditures envisioned in the revitalization plan for the San Francisco Project 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 December 2017, a dual cut-off strategy was implemented at the San Francisco Project which involves trucking lower grade run-of-mine ore to old heap leach pads while higher cut off grade material is fed to the crusher. Run-of-mine ore was placed under leach in January 2018 and approximately 10% of the San Francisco production is expected to come from run of mine leaching in 2018. As at February 28, 2018, approximately 788,000 tonnes of run of mine ore grading an average of 0.16 g/t gold had been stacked on historical leach pads 1 and 2, and stacking is continuing at a rate of 15,000-20,000 tonnes per day. Recovery of gold from run of mine ore is estimated to be 30% during the first 120 days, with 40% as the expected long-term recovery rate. It is expected that all ore mining activity will be in the main pit during 2018, with ore production from La Chicharra Phase 2 expected to commence in 2019.

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. While dialogue continues, the project has been put on hold.

On January 30, 2018, the company announced gold production guidance for its San Francisco Mine of between 90,000 and 100,000 ounces at all-in sustaining costs between \$1,000 and \$1,100 per ounce and total capital and mine site exploration spending between \$2.5 and \$3.0 million.

In preparation for the departure of Miguel Soto, Vice President Exploration for Alio at the end of February 2018, the exploration function at the San Francisco Mine has been transferred to the mine site under the direction of the General Manager. At the Ana Paula Project, the Company has engaged Ms. Gillian Kearvell as a consultant to oversee the current exploration program.

In the fourth quarter of 2017, the Company appointed Joe Campbell as General Manager of the San Francisco Mine and Jorge Lozano as Manager, Mining. Jose Hector Figueroa, VP Operations, completed a handover to the new mine management team and left the Company at the end of February 2018.

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 2017, the Company sold 83,211 gold ounces at an average realized gold price of \$1,256 per ounce, compared to sales of 100,480 gold ounces at an average realized gold price of \$1,234 per ounce during 2016. This represents a decrease of 17% in gold ounces sold and an increase of 2% in realized gold price over 2016.

Total metal revenues from mining operations in 2017 were \$105.2 million compared to \$123.9 million during 2016, due to lower gold ounces sold.

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”).

At December 31, 2017, the Company held 25,000 of these option contracts. Subsequent to December 31, 2017, the Company acquired an additional 35,000 options contracts. At March 14, 2018, 10,000 contracts had expired. Open contracts have a put price of \$1,250 per ounce and call prices between \$1,387 and \$1,469 per ounce.

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, 2017, was \$4.1 million and was calculated using an effective weighted discount rate of 7.5%. The undiscounted value of this liability is \$5.3 million, calculated using an effective weighted inflation rate assumption of 3.5%. Reclamation expenditures for the year ended December 31, 2017, were nil.

Environmental Policies

The Company implemented an environmental policy in August 2017 (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 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, 2017, the Company had 11 full-time employees or contractors at its head office in Vancouver, Canada. In addition, the Company had 16 full-time employees at its office in Hermosillo, Mexico, and 55 full-time employees and 43 contractors at the Ana Paula Project. At its San Francisco Project the Company had 274 employees and 194 skilled mining personnel provided by a mining contractor.

REORGANIZATION

In September 2017, the Company began a restructuring process to simplify its corporate structure and completed a series of transactions to this effect in October 2017. See “*Corporate Structure*”.

RISK FACTORS

Risk Factors Relating to the Company's Business

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 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's only operating mine and all of its exploration and development properties are 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 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 activities relating to the San Francisco Property are subject to, among other things, regulations promulgated by SEMARNAT, Mexico's environmental protection agency; DGM, the Mexican Department of Economy—Director General of Mines; and the regulations of CONAGUA, the Comisión Nacional del Agua with respect to water rights. Mexican regulators have broad authority to shut down or levy fines against facilities that do not comply with regulations or standards.

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.

If the Company is unable to hire, train, deploy and manage qualified personnel in a timely manner, particularly in Mexico, 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 our 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. As the Company's business activity grows, the Company will require additional key financial, administrative and mining personnel as well as additional operations staff, particularly in Mexico. 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.

It may be particularly difficult to find or hire qualified personnel in the mining industry who are situated in Mexico, to obtain all of the necessary services or expertise in Mexico, or to conduct operations on the Company's projects at reasonable rates. If qualified personnel cannot be obtained in Mexico, the Company may need to obtain those services outside of Mexico, which will require work permits and compliance with applicable laws and could result in delays and higher costs to the Company.

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.

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 and Ana Paula Project have mineralization considered a mineral reserve pursuant to CIM standards. Mineral exploration and development involves 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 affect 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 San Francisco 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 affect 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 in Mexico 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.

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 land forms 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 Mexican 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. The Mexican government 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 affect 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 the Mine. 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 San Francisco 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.

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) against the Mexican peso (being the currency in which the majority of the Company's capital and operating costs are incurred), 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.

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'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 exploration and 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 may experience problems integrating new acquisitions and other problems associated with strategic transactions.

Strategic transactions, including 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's success at completing acquisitions will depend on a number of factors, including, but not limited to, identifying acquisitions that fit its strategy, negotiating acceptable terms with the seller of the business or property to be acquired and obtaining approval from regulatory authorities in the jurisdictions of the business or property to be acquired. Any positive effect on the Company's results from its acquisitions, including the acquisition of Newstrike, will depend on a variety of factors, including, but not limited to, assimilating the operations of an acquired business or property in a timely and efficient manner, the ability to achieve identified and anticipated operating and financial synergies, the decline in value of acquired properties, companies or securities, maintaining the Company's financial and strategic focus while integrating the acquired business or property, managing the potential loss of the Company's key employees or key employees of any business acquired, implementing uniform standards, controls, procedures and policies at the acquired business, as appropriate, and conducting and managing operations in a new operating environment. In addition, the financing of any significant acquisition may result in changes in its capital structure, including the incurrence of additional indebtedness. Conversely, any material disposition could reduce its indebtedness or require the amendment or refinancing of a portion of its outstanding indebtedness. The Company may not be successful in addressing these risks or any other problems encountered in connection with any strategic transactions.

The Company may from time to time become 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 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.

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;
- 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.

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

Introduction and Technical Information

Alio Gold retained Micon to conduct an audit of its resource and reserve estimates and to prepare an update of its September, 2016, technical report on the San Francisco Project in the state of Sonora, Mexico. The purpose of the San Francisco Report is to support disclosure of the results of Micon's resource and reserve audit and the updated mining plan for the San Francisco Project, in compliance with NI 43-101.

Micon's prior technical report for Alio Gold was entitled "*NI 43-101 FI Technical Report Updated Resources and Reserves and Mine Plan for the San Francisco Gold Mine, Sonora, Mexico*", dated September 30, 2016 (amended November 25, 2016). Micon has written nine prior reports on the San Francisco Project for Alio Gold since 2005.

The following information has been derived from the NI 43-101 technical report entitled "*NI 43-101 FI 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 Report**"), prepared by Micon International Limited of Toronto, Ontario ("**Micon**"). The Qualified Persons responsible for the San Francisco 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 Report provided below. The San Francisco 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).

Jorge Lozano, BSc, a certified member of the Mining and Metallurgical Society of America, a Qualified Person under NI 43-101 and the San Francisco Mine Manager of the Company, has approved the Technical Information disclosed regarding the San Francisco Property contained in this AIF.

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 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. The bi-annual fee payable to the Mexican government for Alio Gold to hold the group of contiguous mining concessions for the San Francisco operations is US\$532,914. The bi-annual fee for Alio Gold to hold the group of contiguous mining concessions which comprise the regional mineral property is US\$151,476. 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 Sarcocaulis 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.

Future Exploration Programs

Alio Gold is not planning any further exploration programs on the San Francisco Property, at the current time. However, should the price of gold exceed US\$1,300/oz gold, Alio Gold can revisit this decision.

Alio Gold is currently planning a 62,000 m program consisting of both infill and step-out drilling as part of its mining operations to better define areas of weak mineralization or where the drilling is not detailed enough for the mine plan. Part of this in-fill drilling is also directed at identifying the continuity of the mineralization in the down dip projection of those mineralized zones that lie within the mine plan or could be brought into the mine plan.

Micon has reviewed the proposed drilling program, as well as the work that Alio Gold conducted to the north of the San Francisco pit and the work conducted on the south wall of the pit during its May 2016 and previous February 2016 site visits. Based on the reviews, Micon considers that the further exploration is warranted.

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

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 2-2. 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 2-2 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 2-3 have been derived from the measured and indicated Mineral Resources summarized in Table 2-2 and account for mining recovery and dilution. The figures in Table 2-3 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

Production to Date

The San Francisco Mine resumed commercial production in April, 2010. Table 2-4 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 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.

Alio Gold is working on improving the recovery within the leach pads by finer crushing in both crushing circuits, P100 = 9.35 mm and P80 = 8.50 mm. Both crushing circuits must be upgraded to maintain a throughput of 22,000 t/d at the finer crush sizes. These upgrades are expected to be completed by the first quarter of 2018.

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.

Table 1-4
San Francisco Project, Alio Annual Production (from April 2010 to the End of March 2017, by Quarter)

Year	Quarter	Mined Ore* (Dry Tonnes)	Average Grade (g/t Gold)	Processed Ore (Dry Tonnes)	Average Grade (g/t Gold)	Gold Ounces Placed on Leach Pad	Gold Ounces Recoverable	Silver Ounces Recoverable	Gold Ounces Sold	Waste Mined	Strip Ratio	Days in Quarter	Average Ore Mined (tonnes/day)	Average Ore Processed (tonnes/day)	Total Mined (tonnes/day)
2010	April - June	911,319	0.802	905,296	0.718	20,904	14,145	6,050	10,375	4,057,842	4.1	91	10,014	9,948	55,461
	July - September	1,085,845	0.873	1,090,768	0.817	28,667	19,375	8,398	15,685	3,630,021	3.27	92	11,803	11,856	51,524
	October - December	1,222,551	0.972	1,208,677	0.939	36,483	25,034	11,030	20,031	4,498,925	3.54	92	13,289	13,138	62,720
2011	January - March	1,229,043	0.870	1,207,339	0.895	34,743	24,088	10,501	17,020	4,701,677	2.89	90	13,656	13,415	70,289
	April - June	1,268,454	0.907	1,239,075	0.859	34,235	22,138	8,622	16,676	4,239,137	2.57	91	13,939	13,616	64,696
	July - September	1,359,091	0.835	1,364,290	0.804	35,282	22,667	8,640	17,287	5,097,292	2.51	92	14,773	14,829	77,474
	October - December	1,285,035	0.777	1,327,299	0.778	33,195	21,686	11,635	21,524	4,160,488	1.98	92	13,968	14,427	68,023
2012	January - March	1,287,804	0.794	1,255,477	0.772	31,150	19,721	11,740	21,532	3,879,662	1.85	91	14,152	13,796	65,627
	April - June	1,306,312	0.901	1,347,112	0.901	39,028	25,507	14,453	23,203	4,342,495	2.07	91	14,355	14,803	70,776
	July - September	1,423,531	0.893	1,420,414	0.887	40,490	26,075	13,857	25,154	4,210,428	1.86	92	15,473	15,439	70,401
	October - December	1,340,712	0.880	1,493,623	0.819	39,339	24,886	16,203	24,556	5,295,383	2.84	87	14,573	16,235	77,858
2013	January - March	1,713,827	0.817	1,787,262	0.825	47,434	30,501	14,313	28,328	6,375,048	3.02	90	19,043	19,858	94,318
	April - June	1,776,833	0.818	1,848,832	0.814	48,380	31,800	16,124	28,024	6,235,920	2.79	91	19,526	20,317	93,074
	July - September	1,665,064	0.799	1,815,709	0.771	45,016	29,666	16,228	29,139	5,441,889	2.58	92	18,099	19,736	82,093
	October - December	1,934,903	0.824	2,014,968	0.872	56,504	38,784	21,849	34,166	5,307,526	2.32	92	21,032	21,902	82,519
2014	January - March	2,085,582	0.792	2,122,650	0.760	51,838	34,544	26,648	35,413	5,520,468	2.37	90	23,173	23,585	87,712
	April - June	2,061,943	0.699	2,184,316	0.650	45,616	30,007	23,489	32,932	5,810,088	2.38	91	22,659	24,003	90,891
	July - September	1,949,924	0.571	2,213,740	0.504	35,889	23,783	18,800	26,675	6,208,303	3.08	92	21,195	24,062	89,411
	October - December	1,785,811	0.688	2,101,873	0.563	38,078	24,604	16,327	25,007	6,417,044	3.30	92	19,411	22,846	90,886
2015	January - March	1,974,125	0.581	2,074,788	0.532	35,469	21,473	15,309	24,155	5,997,897	2.87	90	21,935	23,053	89,825
	April - June	2,070,769	0.571	2,252,591	0.527	38,176	23,242	13,041	22,869	7,151,798	3.38	91	22,756	24,754	101,868
	July - September	1,946,848	0.549	2,200,292	0.510	36,072	23,010	10,526	23,387	7,000,474	3.57	92	21,161	23,916	97,428
	October - December	1,711,899	0.487	1,921,060	0.458	28,314	18,084	13,151	22,787	6,857,052	4.00	92	18,608	20,881	93,151
2016	January - March	1,995,354	0.621	2,003,712	0.622	40,038	25,723	14,671	24,667	4,708,661	2.36	91	21,927	22,019	73,714
	April - June	1,848,675	0.604	1,939,567	0.604	37,640	24,801	14,884	26,474	3,729,153	2.02	91	20,315	21,314	61,295
	July - September	1,745,081	0.604	1,791,399	0.610	35,135	22,913	9,761	23,327	3,724,904	2.13	92	18,968	19,472	59,456
	October - December	1,864,407	0.486	1,917,965	0.482	29,703	17,154	9,692	26,012	2,365,312	1.27	92	20,265	20,847	49,979
2017	January - March	1,942,117	0.485	1,963,307	0.477	30,115	17,932	10,131	26,048	3,241,871	1.67	90	21,579	21,815	57,600
Total		45,792,859	0.711	48,013,401	0.682	1,052,933	683,344	386,073	672,453	140,206,757	2.60	2,557	17,909	18,777	76,123

*Excluding lower grade ore stockpiled.

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). Table 1-5 summarizes the leach pad phases.

Table 1-5
Summary of the Leach Pad Phases Based Upon the Permits Acquired for the San Francisco Mine

# Phase	Duration	Surface	Nominal Capacity	Capacity to date	Status
1 & 2	November 2009 to November 2013	36 ha	23 Mt	22 Mt	Released
3	November 2013 to August 2015	25 ha	16 Mt	16 Mt	On Irrigation
4	August 2015 to October 2016	16 ha	10 Mt	10 Mt	On Irrigation
5	October 2016 to June 2017	12 ha	8 Mt	3 Mt	Depositing ore
6	June 2017 to September 2018	17 ha	10 Mt	----	In Construction

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 tonne of carbon has been added to the process. In March, 2017, this new circuit started full operations. The target is 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 has indicated that recovery will 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 are estimated to total US\$70 million, as shown in Table 1-6.

Table 1-6
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 mains power to the crushing circuit and enable removal of the diesel generating plant.

Closure and reclamation costs are currently estimated to be US\$8.0 million. This amount includes physical reclamation and payments to employees. This cost is not included in the capital estimates as Alio Gold believes they will not materially change.

Micon has reviewed Alio Gold's estimate of the future capital expenditures for the San Francisco Project and regards it as reasonable.

Cash Operating Costs

Alio Gold's projected production and average cash cost per ounce of gold from 2017 to 2024 is estimated to be as shown in Table 1-7:

Table 1-7
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

Alio Gold's latest estimate of its life-of-mine production is 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.

Micon has reviewed Alio Gold's operating cost forecast for the life of the San Francisco Project and regards them as reasonable.

Economic Analysis

Since the last technical report conducted on the San Francisco Project as amended in November 2016, Alio Gold has continued to meet the requirements necessary to be considered a producing issuer, according to the definition contained in NI 43-101.

The investment of an incremental US\$45 million during 2017-2019 is expected by Alio Gold to generate an additional 360,000 gold ounces, compared to the estimates in the prior technical report. The US\$38 million in capital stripping will 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 increase of approximately 265,000 ounces. The US\$5 million investment in crusher upgrades is expected to increase recoveries.

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

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

Alio Gold notes that the expansionary capital expenditure is phased smoothly over 2017-2019 which means the updated LOM doesn't significantly depart from the 2016 technical report cash flows during the investment period. The planned capital investments are 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.

Conclusions and Recommendations

Micon audited the resource and reserve estimates and concluded that these were conducted to the standard necessary to meet the CIM standards and definitions for Mineral Resources and Reserves.

Micon reviewed the mine design, the mining schedule, the mining contract terms and the ability of the contractor to meet the mining schedule, and concluded that the estimations and designs have been properly carried out and that the contractor is capable of meeting the schedule.

Micon reviewed the crushing, heap leach and ADR facilities and concluded that they are adequate for the treatment of the scheduled process feed material and the recovery of gold in doré, as forecast in the production plan. Micon also believes that the crusher modifications and capital spend by Alio Gold are justified to improve recovery.

Micon reviewed the economics of the San Francisco Project and concluded that it is viable and meets the criteria for publication of a Mineral Reserve and the Reserves are appropriate.

Micon recommended that Alio Gold proceed with the following program of drilling which, in Micon's opinion, has the potential to strengthen and increase the San Francisco Project's resources.

- Infill Drilling – additional in-fill drilling has the potential to increase the confidence in the resource estimate of the deposit and increase overall gold grade, reducing the drilling spacing between holes along the sections. Alio Gold is planning to drill approximately 42,000 m of in-fill drilling at an approximate cost of US\$2.73 million.
- San Francisco Mine Potential – additional to the in-fill drill program, Alio Gold is considering continuing to drill in the down dip projections of the mineralized zones within the San Francisco pit and La Chicharra pit, and exploring the northeastern and southeastern portion of the San Francisco pit to locate possible additional resources. Previous drilling along the northern pit wall to the north and down below of the existing crushing facilities has encountered shallow mineralization. Further drilling will test for extensions of these near surface zones. Alio Gold is planning to drill approximately 20,000 m of in-fill drilling at an approximate cost of US\$1.3 million.

Given the prospective nature of the San Francisco Property, it is Micon's opinion that the San Francisco Project merits further exploration. Micon recommended that Alio Gold continues to hold its existing mineral concessions and that Alio Gold's program of in-fill and down dip drilling of approximately US\$4 million is both warranted and appropriate as the first stage of further work to be conducted on its San Francisco Property.

Micon also recommended that Alio Gold proceed with implementing the proposed upgrades to the crushing circuits, with the objective of increasing the average gold recovery.

Ana Paula Property

The following summary is derived from the technical report entitled “*Ana Paula Project, NI 43-101 Technical Report, Amended Preliminary Feasibility Study, Guerrero, Mexico*” dated June 7, 2017, with an effective date of May 16, 2017 (the “**Ana Paula Report**”), prepared by Daniel H. Neff, P.E., Art Ibrado, PhD, P.E., Taj Singh, P.Eng., Andrew Kelly, P.Eng., Gordon Zurowski, P.Eng., Pierre Desautels, P.Geo., Gilberto Dominguez, P.E., James A. Cremeens, P.E., P.G., all of whom are “Qualified Persons” under NI 43-101, are independent of the Company, other than Taj Singh who was the Company’s Vice President Engineering and Project Development, and have approved of the summary of the Ana Paula Report provided below. The Ana Paula 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).

Summary

Alio Gold has completed a preliminary feasibility study (“**PFS**”) of its wholly owned Ana Paula Project, which is a gold resource development project located in the Guerrero Gold Belt in Guerrero, Mexico. The highlights of the PFS include the following.

- Proven & Probable Mineral Reserves of 13.4 million tonnes at 2.36 grams of gold per tonne for 1,021,000 contained ounces of gold
- Inferred Resources of 870,000 tonnes at 1.84 grams of gold per tonne for 51,400 contained ounces of gold
- Net present value using a 5% discount rate (“**NPV5%**”) = US\$223 million and internal rate of return (“**IRR**”) of 34% after taxes at US\$1,250 per ounce of gold
- Initial Capital Cost of US\$137.2 million
- Cash costs of US\$489 per ounce of gold and site all-in sustaining costs of US\$524 per ounce of gold
- Overall gold recovery of 85%
- Mine life of 7.5 years from an open pit producing 868,000 ounces of gold
- Underground potential highlighted with Measured & Indicated Resources below the proposed pit of 3.0 million tonnes at 2.8 grams of gold per tonne for 266,700 contained ounces
- Feasibility study started in July 2017.

Introduction and Technical Information

M3 Engineering & Technology Corp. (“**M3**”) was commissioned by Alio Gold to carry out a PFS of the Ana Paula Project pursuant to NI 43-101 including preparation of a report in accordance with Form 43-101F1 standards. The Ana Paula Project encompasses several gold occurrences within an exploration concession covering an area of more than 600 square km (“**km²**”).

Paul Hosford, BSc, P.Eng, a Qualified Person under NI 43-101 and the Vice President of Project Development of the Company, has approved the Technical Information disclosed regarding the Ana Paula Project contained in this AIF.

Property Description and Location

The Ana Paula Project is located in the north central part of the State of Guerrero in southern Mexico, roughly half way between the major cities of Mexico City and the Port of Acapulco. The Ana Paula Project centroid is located at UTM Q14N, WGS84, 409,027.8E and 1,997,632.6N or 99° 51’ 34.4” west longitude and 18° 3’ 55.2” north latitude near the municipality of Cuetzala del Progresos and Apaxtla del Castregon. The Ana Paula Project lies within the Sierra Madre mountain range where topography can range from moderate to rugged with elevations varying from 900 to over 1,460 meters above sea level (“**masl**”). The Balsas River, which divides the Sierra Madre Mountains into north and south ranges, flows just south of the Ana Paula Project area.

The town of Iguala, with a population of about 200,000, is a three-hour drive from Mexico City and about four hours from the port city of Acapulco. The Ana Paula Project concessions are accessible from Iguala via paved highways and good quality all season unpaved roads. Driving time from Iguala is about 1.25 hours to the Ana Paula Project headquarters located at Cuetzala del Progreso.

The Company maintains offices, residences, and storage facilities in Cuetzala del Progreso. Access to the Ana Paula Project site is via a series of secondary unpaved roads, built and maintained by the Company and many are passable by two-wheel drive vehicles year-round. Four-wheel drive vehicles are required on drill access roads during rainy periods. All exploration and potential mining activities are carried out year-round.

The climate in the region is warm and humid, with temperatures ranging from 17° to 45° Celsius (°C). Precipitation averages at 835 millimeters (“mm”) per year, mostly occurring between June and October during the monsoonal season, which is influenced by hurricanes from both the Atlantic and Pacific oceans. According to Mexican regulation NOM-141 SEMARNAT-2003, the Ana Paula site falls under seismic region C, where seismic events are common.

Alio Gold (then Timmins Gold Corp.), acquired Newstrike in an arrangement that closed on May 26th, 2015. With the arrangement, Alio Gold acquired ownership of all of the issued and outstanding common shares of Newstrike, its Canadian subsidiary Aurea and its Mexican subsidiary Minera Aurea.

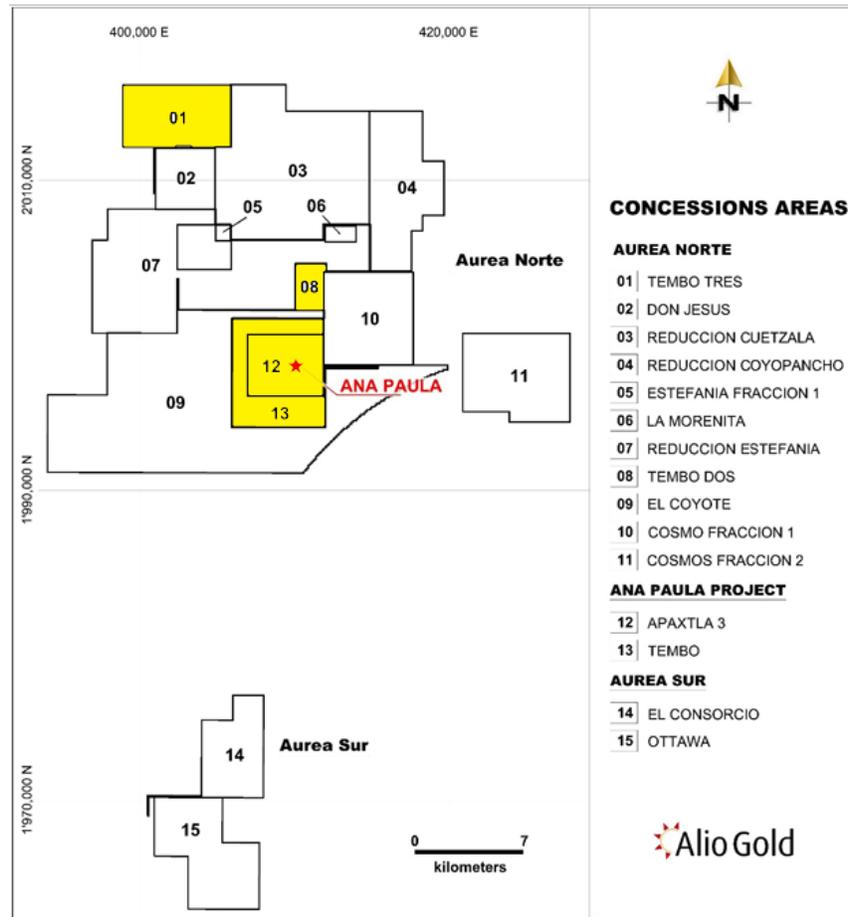
The Ana Paula Project area is contained within two concessions, Aplaxta 3 and Tembo, which total 4,238 hectares. The concessions are owned by Alio Gold’s Mexican subsidiary Minera Aurea. In addition to the Aplaxta 3 and Tembo concessions Minera Aurea holds eleven concessions surrounding the Ana Paula Project totaling 46,278 hectares that form the Aurea Norte Property and two non-contiguous concessions totaling 4,293 hectares which form the Aurea Sur Property.

Alio Gold, through its Mexican operating subsidiary Minera Aurea, entered into an agreement on February 11, 2010 with Desarrollos and Minera San Luis (subsidiaries of Goldcorp) to acquire a 100% interest in certain mineral rights and concessions from Desarrollos Mineros San Luis, S.A. de C.V. and Minera San Luis S.A. de C.V., wholly owned Mexican subsidiaries of Goldcorp for US\$2.1 million in cash and shares. In addition, the Company granted Goldcorp a 3% NSR royalty from the proceeds from the sale of any ores, metals or any other material of commercial value produced by and from the Aplaxtla 3, Tembo, Tembo Dos and Tembo Tres mineral concessions. On October 19, 2017, Alio Gold announced that it exercised its buy-back right from Goldcorp to purchase 1% of the 3% NSR. After the exercise of Alio Gold’s buy-back right, the NSR held by Goldcorp has been reduced to 2%.

Minera Aurea is subject to a 2.5% NSR payable to Industrias Miral, S.A. de C.V. and others for the remaining mining concessions in the Aurea Norte and Area Sure areas, which concessions are not part of the Ana Paula Project area.

The concessions highlighted below in yellow are subject to the NSR payable to Goldcorp. The remaining concessions that have not been highlighted are subject to the 2.5% NSR payable to Industrias Miral, S.A. de C.V.

Figure 2-1: Map of Concession Areas for Net Smelter Return Royalties



In addition to the NSR royalties described above, once the Ana Paula project is in operation, the Company will be required to pay to the Mexican government a mining royalty fee of 7.5% on income before tax, depreciation and interest; an extraordinary governmental fee on precious metals, including gold and silver, of 0.5% of gross revenues. This implies an effective combined tax and royalty rate of 35.25%, depending on how deductions will be applied, when combined with the corporate income tax rate of 30%.

As of May 15, 2017, Minera Aurea controls surface rights to 2,442 hectares overlying and surrounding the Ana Paula Project area, where 1,283 hectares are owned outright and approximately 154 hectares are under contract in 30-year access agreements. An additional 1,005 hectares are under exploration access agreements. Negotiations regarding surface rights agreements for the remaining land required for the Ana Paula Project are ongoing with the landowners and the communities.

The Company has good relations with the local communities and the social license is considered more than adequate for the pre-construction activities. During the feasibility stage the Company will study alternative access routes and develop and implement a construction ready community and social relations programs that includes a trained community and social relations team.

Land use negotiations are proceeding well with all the remaining surface rights requirements having entered the negotiation phase.

History

The Ana Paula Project is within the Guerrero Gold Belt which has been mined commercially for gold and silver since the early 1920's. Today, the trend includes producing gold mines, several known deposits in various stages of development and exploration, and numerous early stage exploration prospects. Since modern exploration began 20 years ago in response to changes in Mexican foreign ownership and mining laws, and signing of the North American Free Trade Act (NAFTA), the trend has evolved into one of Mexico's most prolific gold producing belts.

No significant production occurred on the Ana Paula Project. Some small scale artisanal extraction took place during the period between 1950-1980.

SGM (1970-2002)

The 47,600 hectares Morelos National Mineral Reserve, which was located to the west and outside of the Ana Paula Project area, was created during the Administration of President Miguel de la Madrid. The Consejo de Recursos Minerales (the "CRM", today known as the "SGM") carried out exploration throughout the reserve and surrounding areas. The exploration campaign included regional and detailed mapping, airborne and ground geophysics, geochemical sample programs, and drilling. In 1979, SGM built an access road to the artisanal Guadalupana gold mine located on the Ana Paula Project.

Miranda Mining Corp. (2002-2004)

In 1998, Miranda collected 726 regional stream sediment samples west of the Morelos Mineral Reserve, including samples from the Ana Paula Project area. Results from the sampling campaign led to the staking of the claims.

Goldcorp (2005-2010)

Goldcorp conducted the first detailed exploration on the Tembo and Apaxtla 3 concessions, as well as the non-contiguous concessions, Tembo Dos and Tembo Tres, between 2005 and 2009. The Goldcorp work represents the first detailed exploration within the Ana Paula Project area.

Work programs included regional and detailed geologic mapping (1:1,000, 1:5,000, and 1:10,000 scale), road building, stream sediment sampling, trench and road cut sampling, age dating of the intrusion, an airborne multispectral and magnetic survey, a ground pole-dipole induced polarization survey, portable infrared mineral analyzer ("PIMA") alteration mapping, structural interpretation, petrologic and microprobe studies.

Goldcorp conducted trench and road cut sampling during 2005. Goldcorp's work outlined a 1 by 2 km exploration target in the Ana Paula Project area defined by anomalous outcrop gold geochemistry (>0.2 to 49.9 g/t) returned from grid and road-cut samples with coincident underlying geophysical anomalies.

Previous Studies and Estimates

A petrographic study was carried out in 2005 on 11 rock samples. In 2006, Goldcorp expanded the litho-geochemical sampling and contracted SJ Geophysics Ltd. to provide an Induced Polarization geophysical survey. Intrusive samples were submitted for age dating. Petrographic and microprobe studies were conducted on a suite of volcanic and intrusive rocks and a structural interpretation utilizing satellite imagery was completed.

In 2013, H. E. Welhener, R. A. Lunceford, & Winckers, issued a technical report and initial resource estimate for the Ana Paula Project. The resource estimate was based on 130 diamond core drill holes aggregating 67,943 meters and containing 45,512 assay intervals.

In August 2014, JDS Energy and Mining issued an NI-43-101 technical report entitled “Preliminary Economic Assessment on the Ana Paula Project, Guerrero State Mexico” and incorporated an estimate of the mineral resources. The resource estimate was based on 113,535 metres (“m”) of drilling aggregating 85,523 assay intervals in 230 diamond core drill holes.

These historical resource estimates are no longer current and have been superseded by the mineral resource estimate effective May 16, 2017, as summarized below.

Geology and Mineralization

Mineralization in the Guerrero Gold Belt (“GGB”) is characterized as a skarn porphyry mineralization related to an early Tertiary intrusive event. Ana Paula is located along the northwesterly trend of the GGB where it straddles a boundary between two older tectonic sub-terraces; a volcanic-volcaniclastic arc assemblage to the west and a thick carbonate platform sequence overlain by younger marine deposits to the east.

The stratigraphy of both sub-terraces was deformed during the compressive Laramide orogeny and subsequently intruded by a ± 62 -66 million year calc-alkali magmatic event that is currently thought to be associated with the timing of mineralization responsible for the gold deposits and showings of the GGB.

The geologic units underlying the Ana Paula Project are primarily sedimentary rocks composed of an interbedded limestone and shale unit and a carbonaceous limestone unit that have been intruded by intermediate sills, dikes and stocks. Six principal geological domains within Ana Paula deposit have been recognized: (1) Complex Breccia domain that sits in the core of the main Ana Paula deposit is a steeply dipping sub-vertical plug stretched gently in an east-west direction and dipping to south. (2) Intrusive suite domain is a package of several different intrusive phases that in a general sense appear to be similar in composition and age. (3) Monolithic breccia domain is essentially a brecciated intrusion composed of mostly monolithic fragments in a silica rich matrix with mixed sulphide-oxide mineralogy. It is located in the southern part of the deposit. (4) Sediments domain is characterized by light brown weathering, platy outcrops, with distinct gray and brown limestone beds which range from a few centimeters to as much as 25 centimeters thick. Also a massive to thinly bedded laminated carbonaceous limestone is present in this domain. The sediments domain is located in the eastern part of the deposit. (5) Skarn-Hornfels domain is found in the deeper zones of the deposits and shows a down dip zonation from unaltered sedimentary limestone-shale to skarn-hornfels metamorphic rock. (6) Semi-massive sulphide domain is very localized and narrow, and it develops at the contacts between the skarn-hornfels domain and the intrusive suite domain.

In general, four gold depositional settings are recognized at Ana Paula, including:

1. Quartz-sulphide and quartz-carbonate-sulphide veinlets, stockworks with sulphide clots and disseminations in both intrusions and hornfels.
2. Narrow semi-massive sulphide contact replacement of limestone or hornfels/skarn at the intrusion contacts.
3. Sulphide clots, rims and masses in narrow contact replacement of breccia hosted in intrusions at or near the sedimentary contacts and/or fault contacts (detachment faults).
4. Associated with a sulphide constituent within breccia matrix and with sulphide replacement textures within structurally controlled breccia formed oblique to the dominant northerly trending westerly dipping stratigraphy.

The veinlets, stockwork, clots and disseminated mineralization, along with the contact replacement textures (settings 1, 2 and 3 above) are commonly observed contained within the intrusive and sediments domains that collectively make up a corridor of structurally controlled northerly trending and westerly dipping marine sediment and intrusive sill/dike stratigraphy that is host to a lower grade mineralization.

The bulk of the high-grade mineralization at Ana Paula occurs in the Complex Breccia domain. This lithological unit consists of a core of multi-lithic breccia in a steeply south plunging column surrounded by an alteration halo bearing high grade mineralization which is characterized by veins, fracture zones, and massive sulfide contact replacements. The vertical extent of the Complex Breccia has been modelled to a depth of 950 m below surface and is currently limited by drilling. Horizontally, the high-grade mineralization extends between 200 m to 250 m away from the center of the Complex Breccia near surface. The horizontal extent gradually reduces at depth, down to between 20 m to 30 m at the lower extremity of the Breccia. Mineralization is continuous, and grade tends to be highest from the center of the complex breccia and extends into the sediments, intrusive, and hornfels lithology. Outside the halo the mineralization is lower grade and occurs in stockwork, with sulphide clots and disseminations mainly in hornfeld and intrusive.

Gold deposition at Ana Paula tends to occur, both contemporaneous with and post intrusion, exhibiting at least two mineralizing events. The earliest consists of Au-As-(Bi-Te) disseminated mineralization characterized by progressive mineralization over time through deposition of gold in breccias, stockworks, contract skam (both endoskam and exoskam) and other replacement bodies.

The second mineralization event (Au-Ag-Pb-Zn-Hg-Sb) may be a later hydrothermal phase of the earliest intrusive event or may be younger.

The exact timing of gold deposition and the mechanism of deposition within the GGB and at Ana Paula are not yet fully understood and appears to vary among the known deposits, where each deposit shares important characteristics and differences. Intrusions at Ana Paula have been dated at $66.0 - 66.7\text{Ma} \pm 0.7-1.8\text{Ma}$, which may also date the earliest onset on mineralization.

Results from Ana Paula suggest that the bulk of the gold deposition occurs with the dominant Au-As-(Bi-Te) mineralization, and is largely hosted in a northerly trending and westerly dipping corridor of intrusive rocks, at the contacts with sedimentary rocks and hornfels, and within important breccia bodies. Gold deposition within the high-grade core of the deposit is structurally controlled, located at the intersection of at least two fault structures and the host stratigraphy. Both skarn type massive and disseminated sulphide (arsenopyrite + pyrite) replacements and some epithermal overprinting have occurred but the extent and relationship to the oldest intrusive rocks have not been studied in detail.

Exploration and Drilling

Active exploration of the Ana Paula Project began in 2005 and has taken place continuously since 2010. Exploration activities include surface mapping and sampling, geophysical surveys, and drilling. Surface mapping and sampling has been thorough and ongoing. Outcrop and road cut locations are registered on handheld GPS (WGS84 datum) and recorded along with lithologic, structure, mineralization, alteration and other relevant details on field map sheets of the same 1:2000 scale that are then transferred first by hand then digitally to the final map sheets. Geophysical surveys of the area have included aeromagnetics, airborne radiometrics (K, Th, U), induced polarization (IP), and an airborne Z-axis tipper electromagnetic (ZTEM) survey.

Upon acquiring the property in 2015, Alio Gold carried out an extensive review of the data delivered by Newstrike including field review of the existing geological maps by Alio Gold personnel and re-logging of 113 drill holes located in the vicinity of the pit design area and extending below the pit design. A total of 49,968.89 meters of core was re-logged by Alio Gold to provide detailed information across the entire mineralization system and unified lithological, structural and mineralized criteria with the goal to improve support for the geological model.

The primary means of exploration has been by core drilling from the surface. Drilling began with Goldcorp in 2005, continued with Newstrike from 2010 to 2015, and continues with Alio Gold to the present. Table 2-1 shows drilling statistics by year and company.

Table 2-1: Drill Hole Summary by Year and Company

Year	Company	Number of holes	Total length (m)
2005	Goldcorp	11	3,689
2010	Newstrike	12	5,227
2011	Newstrike	57	29,697
2012	Newstrike	72	41,260
2013	Newstrike	78	33,925
2014	Newstrike	2	1,518
2015	Alio Gold	10	2,008
2016	Alio Gold	31	7,304
2017	Alio Gold	12	2,539

The average drill hole spacing is approximately 50 m in the main part of the Ana Paula deposit, with a range of from 20-50 m in the high-grade Breccia Zone and 50 - 150 m to the north and south pit extremities.

Drilling by Alio Gold at the Ana Paula property consisted of a program in 2015 with two components: confirmation drilling and infill drilling. The 2015 program was followed by a major program in 2016-2017 consisting of three main components: infill drilling, geotechnical drilling, and condemnation drilling.

The 2015 confirmation drilling consisted of a total of 606 m of core in three twinned drill holes. The results from the confirmation drilling were consistent with those from previous programs. The infill drilling consisted of 1,403 m of core from seven drill holes. All drilling was completed with HQ (63.5/93.5 mm) diameter diamond drill core rods.

The infill drilling results were very encouraging, as they continued to display Ana Paula's high-grade gold mineralization and allowed for a greater understanding of the deposit.

The 2016-2017 infill drilling consisted of approximately 9,663 m of core in 37 holes. The infill drilling program significantly increased the delineation of the high-grade breccia zone and the mineralization halo surrounding the high-grade breccia.

Sampling, Analysis and Data Verification

Sampling Methods

The sampling methodology carried out by Alio Gold is similar to the methodology used by Newstrike and Goldcorp. Sample intervals were selected by the field geologist and most typically varied between 1.0 m and 2.0 m in length. Sample intervals were not less than 0.50 m on specific, narrow, geological features, and not greater than 2.0 m on wide intervals of barren granodiorite and/or limestone-shale. After logging and sample marking was completed, the core was photographed and then sawed longitudinally in half according to the sample intervals marked by the geologist. Samples were prepared by local workers. Once logged and split, the core was stored on racks in a secure storage facility at the Cuetzala del Progreso core logging facility.

Core sample shipment bags were collected directly from the Ana Paula core logging facility by the analytical laboratory that transports the samples directly to their sample preparation facilities, and who were responsible for all subsequent security following collection from site.

During the Goldcorp and Newstrike drill programs prior to 2015, ALS Global Ltd. through Chemex De Mexico, S.A. de C.V. (“**ALS-Chemex**”) was the primary analytical laboratory for the Ana Paula Project. ACME Laboratory at Guadalajara, Mexico was used by Newstrike as a primary laboratory for 11 holes during the 2013 drill campaign. SGS Laboratory located in Durango was the secondary laboratory for the Ana Paula Project during the Newstrike drill campaigns. BSI Inspectorate was used for the preparation and/or verification of blanks and standards, and for check assay works.

From 2015 to present, ALS-Chemex has remained the primary laboratory for the Ana Paula Project. Samples were processed at ALS Chemex preparation laboratories in Guadalajara, Jalisco, Mexico. After these samples were processed, the pulps were sent to Vancouver, Canada for analysis. Bureau Veritas Laboratory, located in Hermosillo, Sonora, Mexico, was used as the secondary laboratory for check samples.

Sample Preparation and Analysis

Sample preparation was consistent throughout the years. The entire sample was crushed to 2 mm size. Approximately a 250 gram split is pulverized.

Analytical procedures at the ALS Chemex facility were consistent throughout the years. 50-g aliquots were analyzed by fire assay with an atomic absorption finish with samples assaying greater than 10 g/t Au re-assayed by fire assay with a gravimetric finish using a 30 gram aliquot.

The SGA laboratory used during the Newstrike program had a similar analytical procedure. 50-g aliquots were analyzed by fire assay with an atomic absorption finish. Assays grading over 10 g/t were re-assayed by fire assay with a gravimetric finish using a 30 gram aliquot. In 2013, a small number of samples were also prepared at ACME at Guadalajara, Mexico. ACME Laboratory used 50 gram aliquots analyzed by fire assay with an atomic absorption finish with samples assaying greater than 10 g/t Au re-assayed by fire assay with a gravimetric finish.

All samples were also analyzed with an aqua regia digestion and a combination of inductively coupled plasma emission spectrometry (ICP-OES) and/or inductively coupled plasma mass spectrometry (ICP-MS) to provide a multi-element analyses.

All laboratories are internationally recognized and accredited to ISO 17025 or ISO 9001:2008 or better.

Quality Assurance and Quality Control (“QA/QC”)

Quality control samples included standards reference material, blanks, quarter core duplicates, and check samples.

Throughout the years, Standard Reference Materials (“**SRM**”) originated from two sources: (1) commercially prepared and certified samples from CDN Resource Laboratories Ltd.; and (2) those provided by ProDeMin which is a geological services contractor engaged by Newstrike. ProDeMin provided two types of SRM: (1) in-house SRM derived from material obtained in unrelated projects; and (2) in-house SRM derived from Ana Paula mineralized rocks.

Alio Gold now uses blanks consisting of non-mineralized basalt rock chips that are suitable for monitoring cross contamination at the sample preparation step. Goldcorp and Newstrike inserted QA/QC samples at a rate of 1 in 20, alternating between sample types. The insertion rate was considered low and Alio Gold increased the rate to 1 QA/QC sample in 20 for each of the sample types.

The QA/QC program appeared well monitored by the staff during the various drill campaigns.

Results from the blank QA/QC protocol during the Newstrike program were found to be of limited use since the material used was not completely blank. During the Alio Gold program, two major failures outside the blanks safe limits were encountered. In both cases, the laboratory was requested to do a formal investigation and the sample batches were re-assayed. The remaining blanks did not reveal a reproducible pattern of cross-contamination.

Quarter core duplicate samples indicated reasonable agreements between the original and duplicate values considering that a ¼ core duplicate typically shows more drift than a pulp or crush reject duplicate. The scatter about the parity line is good. The slope of regression is close to one, indicating no material bias.

Although some failures (of greater than 3 standard deviations) have occurred in the SRM, there were generally no two consecutive failures observed; except in the Standard CDN-CM-36, where two instances of two consecutive failures existed.

Pulp duplicates check assays mean grade during the Newstrike drill program compared within 5% or less. Check assays on rejects at ALS Chemex indicated more variability possibly related to sample homogeneity. During the Alio Gold campaign check samples processed at Bureau Veritas a slope of regression close to one and some scattered about the parity line likely due to nugget effect.

Metallurgy

A series of metallurgical test programs were conducted on Ana Paula material in support of the PFS. New composites were selected by Alio Gold personnel to be representative of the main lithological domains: intrusive suite (granodiorite, GD); complex breccia (high-grade breccia, HGB); sediments + skarn-hornfels mix (LS); monolithic breccia (low-grade breccia, LGB). These composites were subjected to a variety of metallurgical tests including comminution testing, gravity concentration, whole ore flotation, whole ore cyanidation and pre-oxidation.

Comminution Tests

Comminution results suggest that Ana Paula material is moderately hard to hard. Comminution test work consisted of JK RBT Lite tests, Bond Ball Work Index Tests, SMC tests and Abrasion index tests. Results are presented in Table 2-2. The SMC results indicate the material is somewhat harder than that suggested by the JK RBT Lite work. The SMC results therefore represent a more conservative approach to grinding circuit design. Abrasion testing results indicate that the Ana Paula material is mildly abrasive and that mill liner wear will not be extreme.

Table 2-2: Comminution Test Results

Domain Composite	JK RBT Lite Unscaled Parameter (A x b)	SMC Results (A x b)	BWI (kWh/t)	Abrasion Index (Ai)
Granodiorite (GD)	43.3	34.8	19.4	0.189
				0.203
High Grade Breccia (HGB)	44.0	33.3	16.0	0.194
Limestone Shale (LS)	39.6	N/A	15.1	0.078
Low Grade Breccia (LGB)	55.6	N/A	16.2	0.081

Flotation Tests

A comprehensive flotation test work program was completed on the three predominant domains (GD, LGB, and LS). The study evaluated the impacts of primary grind size, reagent scheme, pH, retention time, and pulp density. The following outcomes are summarized from the PFS.

- Gold recoveries ranged from 93% for LS to 96% for GD and HGB.
- Primary grinds ranging from 75 to 160 micrometers (“ μm ”) were evaluated. The primary grind size had no impact on final flotation recoveries so the coarsest primary grind, 80% passing (P_{80}) 160 μm , was selected for the process design criteria.
- All composites required the addition of copper sulphate for pyrite and arsenopyrite activation. Copper sulphate was added at the rate of 100 grams per tonne of material (g/t).
- Potassium Amyl Xanthate (“PAX”) was added as the primary sulphide mineral collector. Optimum dosage rates ranged from 60 to 110 g/t. PAX was necessary to ensure maximum gold recovery. Tests conducted with alternate primary collectors resulted in lower overall recovery.
- 3418A was added to the GD and HGB composites as a secondary collector. Highest recoveries were noted when dosage rates ranged from 40 to 50 g/t.
- F-131A was identified as the preferred frother. Optimum dosages ranged from 64 to 128 g/t.

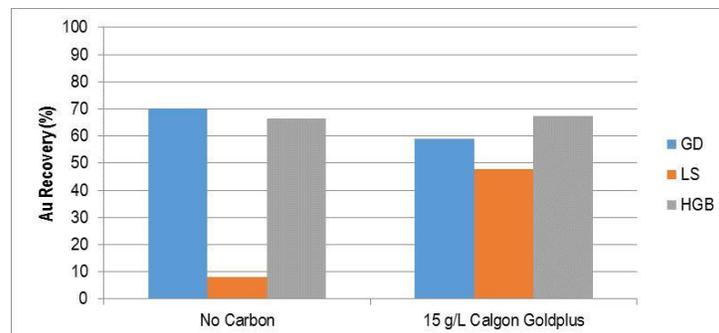
Gravity Gold Recovery

Ana Paula material responded well to gravity concentration. Extended Gravity Recoverable Gold (“EGRG”) tests were conducted on each domain composite. These tests are conducted with successively finer grind sizes culminating with a final grind of 80% passing 75 μm . Anticipated gravity circuit performance is dictated by grinding and gravity circuit design. Given that the primary grind size required for adequate flotation was 160 μm one may expect that gold recovery to gravity concentrate will be somewhat less than that reported by the EGRG results. Modelling of the gravity circuit was conducted by FLSmidth-Knelson and suggests that the average life-of-mine recovery of gold to the gravity concentrate will be approximately 20% at a P_{80} grind size of 160 μm , assuming the treatment of a 36% circulating load through the gravity circuit.

Whole Ore Cyanidation

A comprehensive set of whole ore cyanidation tests were conducted on the three main domain composites (GD, HGB and LS). This test program evaluated the effects of primary grind size, cyanide concentration, lead nitrate addition, dissolved oxygen content, pre-aeration, and residence time. Leach recoveries ranged from 59% to 70% for GD, 62% to 68% for HGB and 6% to 50% for LS. Preg-robbing carbonaceous material identified in the LS composite was used to explain the low gold recoveries in initial testing. LS recoveries improved to the mid- to high-40% range through the addition of activated carbon. The impact of this carbon addition is illustrated in Figure 1-2.

Figure 2-2: Effect of Carbon Addition during Whole Ore Cyanidation



Ana Paula material was largely insensitive to primary grind size, residence time, cyanide concentration, lead nitrate addition and preaeration. The whole ore leach tests underscore the fact that gold recovery is limited by the refractory gold content in the material.

Pre-Oxidation Tests

The primary sulphide minerals at Ana Paula, pyrite and arsenopyrite, were both identified as being carriers of refractory gold. Increasing overall gold recovery requires breaking down the crystal structure of the sulphides by oxidation to make the gold available to the cyanide solution. Pressure oxidation and atmospheric oxidation were evaluated and compared to select the preferred process for recovery of the refractory gold.

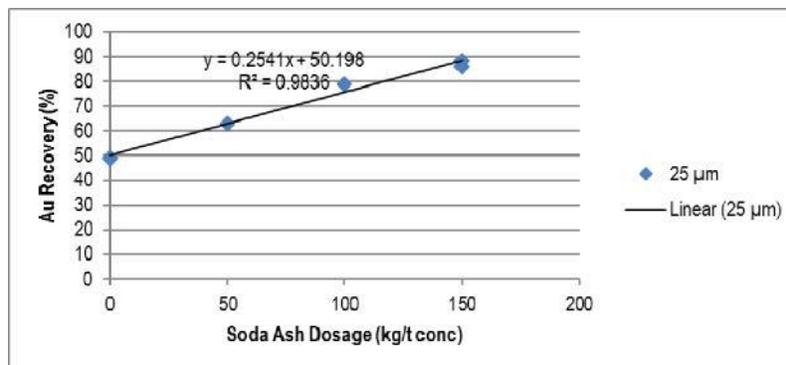
Acidic pressure oxidation of both whole ore and flotation concentrates displayed overall gold recoveries in excess of 95%. Sulphide oxidation in these tests ranged from 96% to 98%. Due to the amount of acid consuming carbonate present in Ana Paula material, an alkaline pressure oxidation test was conducted, but alkaline oxidation up 50% less complete and gold recovery was limited to 75%.

An atmospheric oxidation process was tested at ambient pressure and temperature of 75°C in open tanks with soda ash identified as the preferred neutralizing agent. An initial screening program highlighted that overall gold recovery from the atmospheric oxidation process would yield an average overall gold recovery of approximately 85% to 86% using soda ash as the neutralizing agent. M3 completed a trade-off study comparing pressure oxidation of flotation concentrates to atmospheric oxidation of flotation concentrates. The higher capital cost, and additional technical complexity of pressure oxidation did not support the added recovery benefit. The atmospheric oxidation flowsheet was selected for further optimization.

Additional atmospheric oxidation test work was focused on determining the optimum soda ash addition rates, verifying the concentrate regrind size and studying the effect of residence time on sulphide oxidation and gold recovery. A preliminary evaluation of domain specific oxidation tests was also carried out.

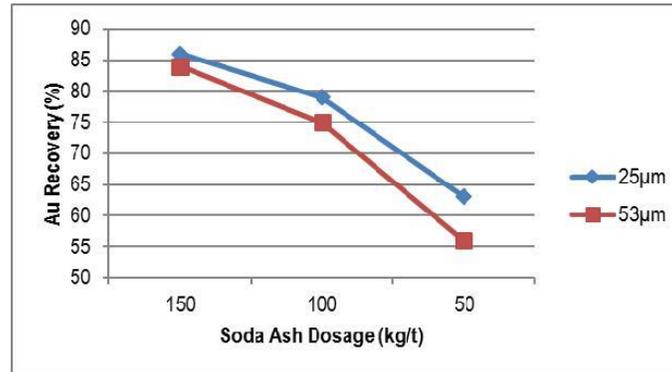
Soda ash addition had a direct relationship to gold recovery. This is highlighted in Figure 1-3 below. In the sample tested, which had a sulphur grade of 9.9%, 150 kg/t was sufficient to maintain a pH at the discharge of the oxidation test of approximately 7, suggesting that this dosage is sufficient to neutralize the acid produced. When lower soda ash dosages were applied, the pH within the oxidation circuit dropped below 7 for periods of time, and lower gold recoveries were noted. Carbonate, likely calcite, present in the flotation concentrate will dissolve in acidic conditions. The free calcium ions it will release likely precipitate as gypsum in the sulphate rich environment. This gypsum precipitate coats the sulphide particles resulting in their passivation and reducing the overall sulphide oxidation and gold recovery.

Figure 2-3: Relationship of Soda Ash Dosage and Gold Leach Recovery of Gravity Tail/Flotation Concentrates (25µm regrind size)



The impact of regrinding was tested at three soda ash addition levels. Other parameters, such as temperature and residence time were held constant. Finer regrind size yielded higher overall gold recoveries. This influence is stronger at lower soda ash dosages, possibly due to the passivating influence of insufficient soda ash, as shown in Figure 1-4.

Figure 2-4: Effect of Regrind Size on Gold Leach Recovery of Gravity Tail/Flotation Concentrates



An oxidation versus recovery profile was generated using the standard 150 kg/t soda ash dosage, with temperature and regrind size held constant at 75°C and 25µm respectively. Gold recovery was measured from carbon-in-leach bottle rolls that were conducted on samples that had been oxidized for 8, 24, 48 and 72 hours. Gold recovery increased from 83% after 8 hours of oxidation to 88% after 48 hours. No additional recovery was recorded from the 72 hour residence time, indicating that 48 hours of retention time is sufficient.

Overall Metallurgical Flowsheet

Based on the test work described above the Ana Paula process flowsheet includes the following:

- Primary grinding to 80% passing 160 µm
- Gravity concentration
- Intensive Leaching of Gravity Concentrates
- Flotation
- Regrinding of flotation concentrates to 80% passing 25µm
- Atmospheric Oxidation of flotation concentrates
- Carbon-in-Leach
- Carbon Elution
- Gold Electrowinning and smelting

Approximately 20% of the gold is expected to be recovered in the gravity circuit. The remainder of the ground material will feed a flotation plant where approximately 20% of the mass and 95% of the remaining gold will be recovered to concentrate. This concentrate is reground to 80% passing 25µm prior to being treated through the atmospheric oxidation circuit. Soda ash will be added to maintain the oxidation pH above 7. Following oxidation, the pH will be adjusted to 10.5 with lime, prior to the addition of cyanide in a Carbon-in-Leach (“CIL”) circuit. Gold will be recovered from loaded carbon through a standard elution process. This flowsheet is expected to yield an average overall gold recovery of 85%.

The presence of preg-robbing organic carbon associated with the limestone shale rock type is a risk to the overall gold recovery. If co-mingled in small quantities the effect is not expected to be significant. However, if limestone shale becomes a larger proportion of the mill feed (greater than 10%, even for short periods of time) or the preg-robbing activity of the native organic carbon is greater in certain areas then lower recoveries may be expected.

Mineral Resource Estimate

The Ana Paula updated mineral resource estimate (“**MRE**”) was developed in conformance with the CIM Mineral Resource definitions referred to in the NI 43-101. The MRE is an update of the May 26, 2016, estimate.

The estimate was completed based on the concept of a small to medium scale open pit, with a possible resource for an underground operation for the material remaining below the pit bottom.

The Ana Paula drill database was thoroughly validated prior to the resource estimate and was found to be error free. All drill core samples were analyzed at internationally recognized and accredited laboratories which were independent from the Company. Core handling, chain of custody, quality control and quality assurance were found to adhere to industry best practice.

The Ana Paula grade models were interpolated using 276 core holes completed by Goldcorp in 2005, Newstrike from 2010 through 2015, and Alio Gold since 2015. The database totaled 123,268 m of core and contained 86,013 assays.

The 3D wireframes developed to control the grade interpolation of the resource model were based primarily on lithology with a probabilistic approach used for the high-grade mineralized halo and the high-grade zones in the lithologies outside the halo. The deposit has been modeled using an Ordinary Kriging applied to 3 m gold and silver drill hole composite lengths which respected lithology units.

Densities were determined from a suite of 5,946 representative core samples using industry standard methods. The density was then interpolated in areas where the data was sufficiently abundant to honor localized variations. For the remaining areas, the average density for each of the lithological domains was applied.

The block model matrix size of 5 m x 5 m x 6 m (width x length x height) was selected in consultation with the engineering team from AGP Mining Consultants Inc. (“**AGP**”), and was based on the size deemed suitable for a small to moderate open pit mining scenario with possible underground mining components below the pit.

The interpolation was carried out in multiple passes with increasing search ellipsoid dimensions. The classification was based primarily on the pass number and the average distance to the composites, followed by an adjustment based on diamond drilling density (core area), and the kriging efficiency.

Under CIM definitions, mineral resources should have a reasonable prospect of economic extraction. A gold price of US\$1,350/ounce and a silver price of US\$17/ounce was used for the cut-off determination. For open pit resources, a cut-off of 0.6 g/t gold was used.

To further assess reasonable prospects of economic extraction, a Lerchs-Grossman optimized shell was generated to constrain the potential open pit material. Parameters used to generate this shell included:

- 49.5° overall slopes for the pit shell
- US\$2.25/t mining, US\$19/t milling, US\$2.49/t G&A operating costs
- 88% gold recovery, and 30% silver recovery
- Gold price of US\$1,350/ounce and US\$17/ounce silver price
- Above criteria was applied to Measured, Indicated, and Inferred materials

To further assess reasonable prospects of economic extraction for the material below the resource constraining shell, a break-even cut-off of 1.65 g/t gold was selected based on the following parameters:

- US \$36/t mining, US \$19/t milling, US \$2.49/t G&A operating costs
- 88% gold recovery, and 30% silver recovery
- Gold price of US\$1,350/ounce and US\$17/ounce silver price
- Dilution considered for cut-off determination 5%
- Above criteria was applied to Measured, Indicated, and Inferred materials

Based on the geometry of the deposit, the material amenable to underground extraction will likely be using a bulk mining method such as long-hole or modified Avoca mining method. The break-even cut-off stated is only applicable to the material in the vicinity of the mineralized HALO due to increase in development cost reaching blocks further away. No mining plan exists for the material amenable to underground extraction and therefore stope size, level spacing and other underground mining criteria's have not yet been established.

With an effective date of May 16, 2017, and based on the above criteria, a summary of the Mineral Resource is presented in Table 2-3, tabulated at a cut-off of 0.6 g/t gold within the resource constraining shell and 1.65 g/t gold below the shell.

Table 2-3: Ana Paula Resource Statement Effective May 16, 2017

Area	Category	Cut-off	Tonnes	Au	Gold	Ag	Silver
		(Au g/t)		(g/t)	(ounces)	(g/t)	(ounces)
Resources amenable to open pit (OP) extraction	Measured	0.6	7,541,000	2.43	590,000	5.1	1,236,000
	Indicated		10,491,000	1.79	605,000	4.8	1,629,000
	Measured & Indicated		18,032,000	2.06	1,195,000	4.9	2,865,000
	Inferred*		249,000	1.27	10,000	8.8	70,000
Resources amenable to underground (UG) extraction	Measured	1.65	41,000	2.07	2,800	4.3	6,000
	Indicated		2,925,000	2.81	264,000	4.2	398,000
	Measured & Indicated		2,967,000	2.80	266,700	4.2	404,000
	Inferred*		621,000	2.07	41,400	3.9	79,000
Total Resources	Measured	OP 0.6 and UG 1.65	7,582,000	2.43	592,800	5.1	1,242,000
	Indicated		13,416,000	2.01	869,000	4.7	2,027,000
	Measured & Indicated		20,998,000	2.17	1,461,800	4.8	3,269,000
	Inferred*		870,000	1.84	51,400	5.3	149,000

The quantity and grade of reported Inferred resources in this estimation are conceptual in nature, and are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. For these reasons, an Inferred Mineral Resource has a lower level of confidence than an Indicated Mineral Resource and it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Rounding of tonnes as required by reporting guidelines may result in apparent differences between tonnes, grade, and contained metal content.

Mineral Reserve Estimate

The reserves for Ana Paula are based on the conversion of the Measured and Indicated resources within the current Ana Paula Report mine plan. Measured resources are converted directly to Proven Reserves and Indicated resources to Probable Reserves. The total reserves for Ana Paula are shown in Table 2-4.

Table 2-4: Proven and Probable Reserves – Ana Paula

Category	Tonnes (kt)	Gold Grade (g/t)	Gold (ounces)	Silver Grade (g/t)	Silver (ounces)
Proven	6,533	2.62	550,000	5.31	1,115,000
Probable	6,907	2.12	471,000	5.13	1,139,000
Total	13,440	2.36	1,021,000	5.22	2,254,000

The reserves are based solely on the Ana Paula open pit. The underground resources have not been converted and remain resources only for the Ana Paula Report.

Mining

The Ana Paula Project will be mined by open pit methods with a contractor using conventional truck and loader production equipment. Pit optimization and mine planning was carried out on that basis to support a plant capacity of 5,000 tonnes-per-day. The mine design work used only measured and indicated resources provided in the latest resource model dated May 16, 2017. Inferred material was considered as waste with zero grade applied.

A series of pit optimizations were examined at various metal prices with a base price of US\$1,200/oz for gold. Metal prices lower than this were examined to determine the best mixture of resource utilization, strip ratio and project economics. The pit design was created using a gold price of US\$984/oz after completing the analysis.

The geologic model provided was a whole block, internally diluted grade model. AGP considered that contact dilution would also play a role in the ore sent to the mill. Dilution is calculated for each contact side using a 0.5 m contact dilution distance. If one side of the block is touching waste, then it is estimated that dilution of 9.1% would result. If two sides are contacting, it would rise to 16.7%, three sides are 23.1% and four sides is 28.6%. Four sides represent an isolated block of ore. The model was examined and the appropriate dilution percentage added to the model blocks at the contact dilution grade. Comparison of the in-situ to the diluted value for the design pit optimization shell showed ore tonnage dilution of 5.1% and gold grade dilution of 4.2% and silver grade dilution of 1.9%. Tonnes and grade for the pit designs and reserves are reported with the diluted tonnes and grade.

Three pit phases were designed for Ana Paula. Due to the topography present at the Ana Paula Project site, access to each of the phases was considered crucial and was incorporated into the designs. Slopes for the pit design were based on Knight Piésold recommendations. They have safety benches of 8.1 m in width every 18 m vertically with an 80 degree bench face angle. This provides for a 58 degree inter-ramp angle in all sectors of the pit.

Equipment sizing for ramps and working benches is based on the use of 63 tonne rigid frame trucks although the final contractor will use 56 tonne trucks. Single lane access is 17.8 m (2 x operating width plus berm and ditch) and double lane widths are 23.5 m (3 x operating width plus berm and ditch). Ramp gradients are 10% in the pit for uphill gradients and 8% uphill on the dump access roads. Working benches are designed for 35 to 40 m minimum on push backs.

The Ana Paula Project life will extend over a period of 10 years, including two years of pre-stripping followed by 8-years of production operations as shown in the mine production schedule provided in Table 2-5. The cutoff for the mine schedule is based on a gold only cutoff of 0.67 g/t gold. The life of mine (“**LOM**”) schedule delivers 13.44 Mt of ore grading 2.36 g/t gold and 5.13 g/t silver. Waste totals 43.74 Mt for a LOM strip ratio of 3.25:1.

Table 2-5: Mine Production Schedule by Year

Year	Mill Feed (Mt)	Au (g/t)	Ag (g/t)	Waste (Mt)	Mine to Mill (Mt)	Mine to Stock (Mt)	Stock to Mill (Mt)	Total Material (Mt)	Strip Ratio (W:O)
-2	-	-	-	2.27	-	0.12	-	2.39	-
-1	-	-	-	4.94	-	0.33	-	5.27	-
1	1.70	2.09	6.92	7.26	1.38	0.36	0.31	9.31	4.17
2	1.80	1.96	5.67	7.15	1.79	0.07	0.01	9.01	3.85
3	1.80	2.59	6.86	7.40	1.60	-	0.20	9.20	4.61
4	1.80	2.13	5.06	7.35	1.65	-	0.15	9.15	4.45
5	1.80	3.11	5.50	4.53	1.80	-	-	6.33	2.52
6	1.80	1.82	3.32	2.19	1.80	-	-	3.99	1.21
7	1.80	2.97	3.63	0.55	1.80	-	-	2.35	0.31
8	0.94	2.09	4.56	0.10	0.74	-	0.21	1.05	0.14
Total	13.44	2.36	5.13	43.74	12.56	0.88	0.88	58.06	3.25

The plant is anticipated to take 3 months to commission in Year 1. Lower grade material will be sent initially as the plant starts. Month 4 will see the plant at full capacity. Ore grades will fluctuate monthly depending on material available in the pit. Higher grade material is direct shipped to the mill with lower grade material stockpiled for later use to maximize the feed grade to the plant in the early years.

All mine equipment is modelled as provided by contractors. Total material movement peaks at approximately 9.3 million tonnes per year, which requires a modest production fleet of up to 8 conventional 56-tonne class haul trucks and two 6.4 m³ class wheel loaders. Drilling can be completed with two DTH drill rigs, a single rotary machine capable of drilling 127 mm diameter holes.

During the mine life, two stockpiles will be required to manage the mill throughput. One will be a temporary location on the Valley WRF to be used in Year 1. The second will be located adjacent to the primary crusher for use as required during the mine life.

Underground mining was not considered for the PFS but warrants further investigation. It has the potential to add additional high grade tonnage to the mine plan. Alio Gold has taken steps to develop an underground drift to allow access to the material beneath the design pit. This is proposed to be started in Q3 2017 with development, drilling and evaluation to follow.

Mine Rock Management

Rock management facilities (“**RMF**”) will be constructed during operations in various locations surrounding the open pit. As required, material mined in year 1 and onwards will also be used for tailing management facility (“**TMF**”) embankment construction. The various RMF will be designed at later stages to be reclaimed concurrent with operations to reduce ultimate liability upon mine closure.

In pre-production 7.2 million tonnes of mine rock and 0.45 million tonnes of mill-feed will be pre-stripped. Life-of-mine, a total of 43.7 million tonnes of mine rock will be moved at a strip ratio of 3.25 to 1.

Recovery Methods

The Ana Paula processing facility will recover gold and silver by gravity concentration, flotation, oxidation of flotation concentrate and cyanidation of the oxidized concentrate by the carbon-in-leach process. The mill is designed at a nominal capacity of 5,000 t/d at 92% availability. Gold and silver adsorbed on activated carbon are desorbed into solution and then recovered by electrowinning. The recovered metals are smelted into doré bullions, which are the final product of the operations.

Comminution and Stockpile

Run-of-Mine is delivered to the 42" x 48" Kolberg-Pioneer jaw crusher (187 kW or 250 hp) for primary crushing at a closed-side setting of 150 mm. Oversized rocks are removed from the feed with a stationary grizzly (opening: 800 mm). This is followed by a scalping grizzly, which bypasses rocks smaller than 100 mm to the transfer conveyor. The oversize of the second grizzly reports to the primary crusher, to where the crushed ore is discharged.

The transfer conveyor is also the stacking conveyor feeding the coarse-ore stockpile. The live capacity of the stockpile is 10,500 tonnes, which is nominally two days' worth of feed to the mill.

Crushed ore is reclaimed via a reclaim tunnel beneath the stockpile, with three reclaim feeders (two operating and one standby) onto the SAG mill feed conveyor.

Grinding and Pebble Crushing

The grinding circuit for the Ana Paula Project is a conventional SABC circuit with one SAG mill, a pebble wash screen, one ball mill, one cyclone cluster, and a pebble crusher. The SAG mill is in a closed circuit with the screen and pebble crushing. The ball mill is in a closed circuit with the hydrocyclone cluster.

The SAG mill is an FFE Minerals mill, 7.32 m diameter by 2.74 m effective grinding length (24 ft x 9 ft EGL), powered by a new 2,872 kW (3,850 hp) drives on VFD. The ball mill was also supplied by FFE Minerals, 4.72 m diameter and 6.55 m long, driven by a fixed-speed 2,313 kW (3,100 hp) motor. Pebbles from the SAG mill is crushed by a cone crusher similar to a Metso HP100.

The SAG mill and ball mill share a common discharge sump. The combined discharge slurry is pumped from this sump to the hydrocyclone cluster by a 260 kW (350 hp) centrifugal pump on variable frequency drive. A second pump is installed as standby. The hydrocyclone cluster has five 26 inch hydrocyclones, with four operating and one on standby. The target grind size for the grinding circuit product is 80 percent finer than 160 microns.

Gravity Concentration

A split from the hydrocyclone overflow is processed for gold recovery by gravity concentration and intensive cyanidation. Gravity concentration is achieved using a centrifugal concentrator (Knelson KC-QS40 or equivalent). The gravity concentrate is then leached with cyanide in the presence of an oxidizer using an intensive leach package (Acacia CS200 ore equivalent). The pregnant solution produced is sent to the same electrowinning circuit serving the oxidized concentrate leach circuit.

Flotation

Sulfides in the ore are floated at the ore's natural pH using PAX as collector, AERO 3418A as promoter, copper sulfate as activator, and F131A as frother.

Flotation of sulfides is accomplished by single-stage rougher flotation. Cyclone overflow is first sent to a 41.2 m³ conditioning tank, then to a bank of six 70 m³ tank flotation cells. Each flotation cell mechanism is driven by a 93 kW (125 hp) motor through a gear reducer. Flotation air is supplied by a 70 kW (94 hp) blower, which can deliver 95 Nm³/min of air.

The tailing is pumped to one flotation tailing thickener (28 m diameter high-rate thickener) to be thickened to 55% solids, in preparation for pumping to the tailing storage facility.

Concentrate Thickening and Regrind

Concentrate from the rougher flotation circuit is dewatered in the 10.5 m diameter high-rate thickener to a pulp density of 55% solids. Underflow from the concentrate thickener is pumped using variable speed horizontal centrifugal slurry pumps to the regrind mill feed box. The thickener overflow, is pumped to the reclaim solution tank.

The concentrate regrind mill is a 900 kW tower mill with ceramic grinding media. It operates in open circuit while being monitored by an online particle size analyzer. The target grind of 80% finer than 25 microns is attained by controlling mill speed with a variable speed drive. The reground concentrate is pumped to the atmospheric oxidation feed box.

Atmospheric Oxidation

Atmospheric oxidation (“**AOX**”) of the sulfide concentrate is conducted in five agitated tanks. Each tank is 9 meters in diameter and 10 meters high (operating volume of 608 m³), made of 2205 duplex stainless steel. Each agitator is powered by a 56 kW (75 hp) motor through a gear reducer. Oxygen is injected into each tank through fine-bubble spargers.

The reaction kinetics was found to be optimized in the laboratory at around 75 °C. It is exothermic and expected to be autothermic if the feed concentrate grade is kept at 10% sulfide sulfur or higher. However, during cold startup, for example after a long shutdown, pulp in the first, and possibly the second AOX tank, will need to be preheated to get the reaction started and provide its own heat. The preheat temperature may be as low as 50 °C up to the actual minimum reaction temperature of 75 °C. The required preheat temperature will have to be established at the start of actual operation.

Carbon-in-Leach (Cyanidation)

The oxidized slurry neutralized to pH 10 to 10.5 with milk of lime. The neutralized slurry is then pumped to a pre-leach thickener (10.5 m diameter) to increase the pulp density to 55% solids. Once thickened, slurry is pumped to the carbon-in-leach feed tank where it combines dilution water, sodium cyanide reagent feed, and other process streams, into the first CIL tank.

Cyanide leaching is achieved in six CIL tanks (9.8 m diameter, 9.8 m high, 696 m³ operating capacity) for 48 hours. Each equipped with 30 kW (40 hp) agitators with two narrow-blade hydrofoil impellers. Air is delivered by a pipe under an inverted cone located directly below the agitator. After leaching, loaded activated carbon is sent to the carbon plant for stripping and electrowinning.

Carbon Handling Plant – Carbon Elution and Metal Recovery by Electrowinning

Loaded carbon is first acid washed with a dilute solution of hydrochloric acid to remove scale from the carbon, rinsed, and then pumped to the carbon stripping vessel. Five tonnes of carbon is stripped per batch, following the pressure Zadra procedure. Hot strip solution (135 °C) is introduced at the bottom of the carbon bed and overflows at the top of the vessel, carrying with it gold and silver that desorbs from the loaded carbon. Because of the elevated temperature, the strip vessel is kept at about 550 kPa to prevent boiling. The filtered residue is finally dried in retorts to remove and collect any mercury, and smelted in a tilting furnace. Metallic gold and silver melt is then poured into bullion molds to produce the final product of the operations – doré bullions.

Cyanide Destruction

Residual weak-acid dissociable (“WAD”) cyanide in the leach tailing is destroyed (detoxified) by oxidation using oxygen (from air) and sodium metabisulfite. Milk-of-lime is added to maintain a slurry pH in the range of 8.0 to 8.5. The reaction is catalyzed by copper (5 ppm), which will need to be supplied if the ore does not contain enough cyanide-soluble copper. The detoxified slurry is sampled prior to thickening to ensure that the WAD cyanide content meets the target discharge level (<50 ppm WAD cyanide, per the Cyanide Code).

Slurry discharged from the detoxification circuit overflows into a discharge box, from where it is pumped to the tailing thickener (28 m diameter thickener).

Tailing Slurry Transport

Thickened tailing is discharged to a final tailing tank, from which the slurry is pumped to the tailing storage facility (“TSF”). The tailing pipeline will be a DN250/PN16 PE100 HDPE pipe, which is 2,700 m long, 250 mm bore, and will distribute tailing to Zone A spigots as well as to the dump spigot. This pipe connects to a 600 m long, 150 mm bore DN150/PN10 PE100 HDPE distribution header that will deposit tailing through Zones B and C spigots.

Solution from the pond reservoir is reclaimed by barge-mounted turbine pumps, one operating, and one standby to the reclaim solution tank) through a 700 m long DN225/PN20 PE100 HDPE pipe.

Sodium Carbonate Handling

Sodium carbonate is delivered to the site by trucks and off loaded to two 1700 tonne silo system. The aim is to provide enough storage capacity to supply 28 days of operation. This would provide sufficient buffer capacity for the supply and transport of sodium carbonate from the supplier to the mine site.

Sodium carbonate is added as a solution to the regrind ball mill and to the oxidation tanks, sodium carbonate is diluted in an automatic dilution system located bellow the silos.

Mill Power Consumption

The average total power consumption in the process plant is 733 million kWh. This translates to about 35.6 kWh/tonne of ore processed.

Project Infrastructure

Roads

The current mine access road is off of the main road between Cuetzala del Progreso and Nuevo Balsas. The access road is approximately 4.5 km from the main road to the plant site. The road from Cuetzala to the mine site will need to be improved to provide access for the larger loads required to construct the Ana Paula Project.

Process Plant Facilities

The process plant is located east of the waste rock management facilities and southeast of the mine pit. Process facilities include the laydown area, initial crushed ore stockpile, primary crusher, mine support buildings, mill area, gravity concentrator, reagents area, flotation, regrind, concentrate thickener, AOX leach tanks, CIL tanks, carbon plant, refinery, cyanide treatment, tailing thickener, oxygen plant, generator area, and electrical substation. Adequate warehouse and office space have been accounted for along with sewage treatment and potable water treatment facilities.

Camp and Ancillaries

Support and ancillary buildings for the site include a covered, partially enclosed equipment maintenance shop, administration office building, fuel storage/dispensing system, truck scale, warehouse, security gate and guard house. Some additional facilities may be brought in by the contract miner.

Mine support buildings include a warehouse, truck shop, and two mine shops.

The mine scenario evaluated in the PFS includes the construction of an on-site camp capable of housing up to approximately 790 people. The site camp area is intended to be developed initially for the construction camp and evolve into the permanent operations camp.

Power

Line power is available within 2.5 km of the proposed plant site and is supplied via a 115 kV line running generally east-west adjacent to the site property. A 1.5 km power line will be constructed with appropriate tie-ins and switching to deliver power at 115 kV to a substation that will be constructed in close proximity to the plant site. The substation will drop the supply voltage to 4,160 V for general distribution around the site and for distribution to the large motor loads such as the crusher facilities. Design power load has been estimated at approximately 15 megawatts (MW). The power supply for the operation of the well system will be carried out by an existing 34.5 kV overhead line.

Water

An average of 84 m³/h of raw water will be required, which will comprise 31.6 m³/h from the well field and 53.2 m³/h from the rainfall diversion channel runoff.

Well water will be used for camp site potable water (4.9 m³/h), mine dust suppression (10 m³/h), gland seal water (12.5 m³/h), cyanide recovery (2.2 m³/h), and crushing dust suppression (2 m³/h). Fire protection water is stored is also derived from well water.

All runoff water is used as mill makeup water. It is introduced to the mill through the tailing thickener and reaches the reclaim water tank with the tailing thickener overflow.

A waste water treatment plant will handle sewer discharge; the effluent will discharge to the tailing storage facility. A smaller specialized treatment system will be installed at the food preparation facilities to mitigate oils and food solids entering the waste water treatment plant.

Tailing Storage Facility

The tailings storage facility was designed to contain tailings and storm water runoff. It has been sized to provide storage capacity for approximately 15.5 million tonnes of tailings and the 0.1 percent chance of exceedance water volume. The maximum height of the dam will be approximately 100 m, which will be constructed in four stages over the life of the mine. The dam will be a zoned earthfill/rockfill structure, with the upstream face lined with 80-mil HDPE geomembrane. The dam will be constructed using conventional downstream methods, and the zone behind the upstream 80-mil HDPE geomembrane liner will consist of, from upstream to downstream: (1) Core zone, (2) Filter/drain zone, (3) Transition zone, and (4) Rockfill Zone. Both upstream and downstream slopes will be 2H:1V. Based on the geochemical characterization and a preliminary surface geology assessment, the basin is not expected to require a liner; however, characteristics of leached concentrate tailings are needed prior to finalizing management needs of these materials. Geotechnical analysis shows that the structure will be stable under static conditions but may experience large deformations under design seismic events, and methods to improve this are being investigated.

It should be noted that the tailing storage facility described above may be subject to changes due to unfavorable foundation characteristics encountered during recent field investigations. In addition, based on preliminary test results of leachate concentrate samples, a separate tailing storage facility may be required for storage of the AOX material, which may require a lined facility for proper containment.

Waste Rock Facility

Two waste rock facilities (“**WRFs**”) have been located downgradient and south of the pit area which will have sufficient capacity to store 53 million tonnes of waste rock. Configurations for the WRFs (East and West WRFs) were developed by AGP Mining Consultants Inc. based on the mine plan for the Ana Paula Project. The East facility will have the downstream toe at 840 masl and will reach a final elevation of 980 masl. The West facility will have the downstream toe at 848 masl and will reach a final elevation of 1,050 masl. Waste rock material in both facilities will be placed to form slopes of approximately 1.4H:1V. Slope stability and deformation analyses confirm that the proposed configurations meet commonly accepted minimum factors of safety and the estimated seismic-induced deformations for both facilities are acceptable. Geochemical analysis of waste rock samples tested indicate that this material will contain an excess of neutralization potential (NP) over acid potential (AP), with capacity to neutralize potential production of acid solutions; in addition, seepage from the waste rock is unlikely to contain mobilized metals at levels of concern; based on this the WRFs will not need a liner or containment system.

Environmental Considerations and Permitting

Mining in Mexico is subject to a well-developed system of environmental regulation that applies from the period of mine exploration, to mine development, operation and ultimately through mine closure.

In April 2017, the SEMARNAT approved the “Manifestación de Impacto Ambiental” (MIA), Environmental Impact Statement, submitted by Minera Aurea.

In September 2016, Mc. Terra Emprendimientos Sustentables (Terra) commenced the environmental baseline study for the Ana Paula Project. The study is expected to be completed in mid-2017.

No known environmental condition exists that would preclude development of the Ana Paula Project.

Capital Costs

M3 was engaged by Alio Gold to compile the PFS, including estimation of the capital and operating costs. The capital cost estimate was completed by obtaining budgetary quotations for major equipment not already owned by Alio Gold. Installation costs were based on M3’s experience building mines in Guerrero State. The estimate is considered a Class 3 estimate which implies a level of accuracy of -10% to +30%. The capital cost estimate, expressed in millions of US dollars (“**US\$M**”) is shown in Table 2-6.

Table 2-6: Capital Cost Estimate

Area	Capital (US\$M)
Process Plant, General, Site Utilities	67.2
Indirects*	9.6
Tailings/Waste Facilities	12.7
Camps	4.0
EPCM	12.9
Owner's Costs**	8.3
Pre-Strip and Mine Establishment	19.9
Contingency***	15.9
Total Capital	150.5
Less Capital Spend in Year 1	(13.3)
Upfront Capital	137.2

* Bussing, Mobilization, Construction Camp Operating, Freight

** Used equipment refurbishment and transport to site, miscellaneous other owners costs

***Contingency calculated as 15% of Directs + Indirects + EPCM

Operating Costs

The operating cost estimates are based on a combination of first-principles build-up, reference projects, budgetary quotes and factors as appropriate for a preliminary study.

These costs include direct mining and re-handle by a contractor, and processing and disposal of the mineralized feed to the plant including doré produced on-site and transportation and refining charges, shown in Table 2-7.

Table 2-7: Operating Costs Summary

Operating Cost	US\$/t processed	LOM US\$M
Mining	8.01	107.7
Processing	20.25	272.2
G&A	2.56	34.4
Total	32.53	418.7

‡Mining Cost is based on US\$2.17/t mined

Economic Analysis

An engineering economic model was developed to estimate annual cash flows and sensitivities of the Ana Paula Project. Pre-tax estimates of project values were prepared for comparative purposes, while after-tax estimates were developed to approximate the true investment value. It must be noted that tax estimates involve many complex variables that can only be accurately calculated during operations and, as such, the after-tax results are approximations to represent an indicative value of the after-tax cash flows of the Ana Paula Project.

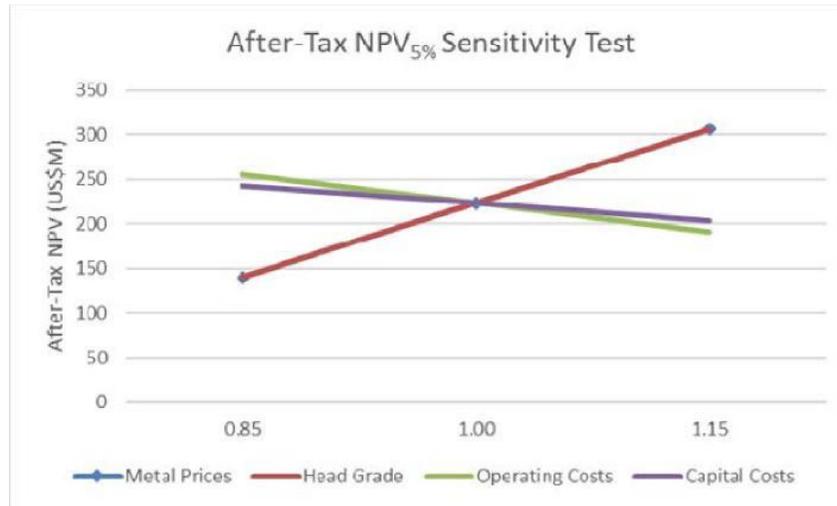
Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. It includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is no certainty that the preliminary economic assessment will be realized.

The results of the economic analysis are shown in Table 2-8.

Table 2-8: Results of the Economic Analysis

Summary of Results	Unit	Value
Mine Life	Years	7.5
Total Reserve	M tonnes	13.4
Total Waste	M tonnes	36.5
Total Capitalized Waste	M tonnes	7.2
Total Mined	M tonnes	57.2
Strip Ratio (Operations)	w:o	2.81
Mining Rate (Maximum)	t/d	24,658
Plant Throughput (Maximum)	t/d	4,932
Average Head Grades		
Au	g/t	2.36
Ag	g/t	5.22
Metal produced		
Au	LOM k oz	868
	k oz/yr	116
Ag	LOM k oz	1,240
	k oz/yr	166
NSR (Net of Royalties)	US\$M	1,081
	US\$/t processed	80.67
Operating Costs	US\$M	445.4
	US\$/t processed	33.14
Au Cash Cost	US\$/Au oz	513
Au Cash Cost (Net of By-Product)	US\$/Au oz	489
Capital Costs		
Initial Capital excluding Contingency	US\$M	134.6
Initial Capital Contingency	US\$M	15.9
Total Initial Capital	US\$M	150.5
	US\$/t processed	11.20
Sustaining & Closure Capital	US\$M	30.2
Sustaining & Closure Contingency	US\$M	0.0
Total Sustaining & Closure Capital	US\$M	30.2
	US\$/t processed	2.25
Total Capital Costs Incl. Contingency	US\$M	180.7
	US\$/t processed	13.45
Pre-Tax Cash Flow	US\$M	479.9
Taxes	US\$M	161.9
After-Tax Cash Flow	US\$M	318.0
Economic Results		
Pre-Tax NPV5%	US\$M	347.2
Pre-Tax IRR	%	44%
Pre-Tax Payback	Years	2.3
After-Tax NPV5%	US\$M	223.4
After-Tax IRR	%	34%
After-Tax Payback	Years	2.6

Sensitivity analyses were performed on the Base Case economics to determine which factors most affected the Ana Paula Project performance. The analysis revealed that the Ana Paula Project is most and equally sensitive to metal prices and head grades, followed by operating costs.

Figure 2-5: Sensitivity Results for Base Case Scenario

Conclusions

It is the conclusion of the Qualified Persons preparing the Ana Paula Report that the information contained within adequately supports the positive economic results obtained for the Ana Paula Project. The Ana Paula Project contains 13.4 million tonnes of gold-bearing sulphide mineralization that can be mined by open pit methods and recovered using common processing methods consisting of milling, gravity, flotation, atmospheric oxidation and cyanide leaching of flotation concentrates.

Based on the information contained in the Ana Paula Report, the Ana Paula Project is technically and economically viable; further study at a feasibility level should be performed in order to verify these conclusions.

As with any mining project, there are risks that could affect the economic viability of the Ana Paula Project, as well as opportunities to improve the economics, timing, and/or permitting potential of the Ana Paula Project. These risks and opportunities are detailed in Section 25 of the Ana Paula Report.

Recommendations

M3 recommended that the Ana Paula Project advance to a feasibility-level study, including associated test work, engineering and exploration. These recommendations, as provided by the Qualified Persons, are detailed in Section 26 of Ana Paula Report.

The feasibility study (“FS”) would encompass the following items:

- Metallurgical test work including pilot plant testing described herein to optimize the process flowsheet and quantify operating parameters and reagent consumptions.
- Complete TSF and WRF engineering including hydrology model and site wide water balance.
- Optimization studies on WRF design and sequencing should be completed, including design updates based on further geochemical and geotechnical information.
- Alio Gold should strongly consider exploring the underground mineralization beneath the proposed pit. The high grade breccia mineralization extends to depth with multiple intercepts with grade sufficient to support underground mining.
- A surface exploration drilling program should be carried out to the north-east section of the proposed pit where high grade mineralization have been identified.

It was recommended that environmental baseline study be completed and a socio-economic program also be initiated.

Further hydrologic studies including well tests to define water resources and make application for their use should be conducted.

Geochemical characterization of cyanide leach tailings must be completed to generate a basis for further engineering of storage methods and design.

Detailed costs of the recommended work are included in Section 26 of the Ana Paula Report. Estimated costs for a FS-level study specific to the Ana Paula Project total US\$16.59 million and are itemized in Table 2-9.

Table 2-9: Feasibility Study Estimated Costs

Item	Cost in US\$000s	Description
Metallurgical Test Work	1,280	Metallurgical Core Sampling, Pilot Plant Test Work, Analysis, and Interpretation.
Tailings Management and Waste Rock, Facilities and Water Supply	570	Geotechnical and Design Engineering for Tailing Management and Waste Rock Facilities. Hydrogeology and Geochemical.
FS Engineering & Services	700	FS-Level Mine, Infrastructure and Process Designs.
Environment and Social Studies	900	Geochemistry, Environmental and Social Impact Studies.
Other Studies	385	Mining, Geology & Peer Review.
Local Infrastructure Engineering	350	Access Roads, Power Studies.
EPCM Engineering	750	Infrastructure & Plant Design and Engineering.
Underground Exploration	7,500	Underground Exploration Adit.
Surface Exploration	875	Delineation of High Grade Breccia.
Hydrology Drilling	640	Well Testing.
Site G&A	1,140	
Subtotal	15,090	
Contingency (10%)	1,500	
Total	16,590	Excludes Owner's Costs and Permitting Fees.

Other Mineral Properties

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 the Plan of Arrangement with Newstrike. No exploration was performed on these properties during 2017. The Company will conduct further exploration on these properties if resources allow.

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 44,678,701 common shares were issued and outstanding as at December 31, 2017, and 44,678,701 common shares are currently issued and outstanding. 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, 2017, and none of which are currently issued and outstanding.

Options

As at December 31, 2017, 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 May 24, 2016. These options are exercisable into common shares.

Number of Options ⁽³⁾	Exercise Price ⁽³⁾ C\$	Issue Date	Expiry Date
50,000	12.50	December 18, 2013	December 18, 2018
50,000	12.50	December 31, 2013	December 31, 2018
140,000	20.00	August 6, 2014	August 6, 2019
65,000	10.30	December 31, 2014	December 31, 2019
65,000	7.50	May 8, 2015	May 7, 2020
160,000	7.60	May 26, 2015	May 26, 2020
220,500	7.80	May 26, 2015	June 27, 2020 ⁽¹⁾
80,000	2.50	November 5, 2015	November 5, 2020
127,500	2.90	November 5, 2015	November 5, 2020
64,350	6.50	May 26, 2015	November 29, 2020 ⁽¹⁾
31,500	15.00	May 26, 2015	March 21, 2021 ⁽¹⁾
31,500	9.60	May 26, 2015	May 20, 2021 ⁽¹⁾
195,000	3.30	June 1, 2016	June 1, 2021
102,600	31.20	May 26, 2015	August 10, 2021 ⁽¹⁾
120,000	4.40	January 16, 2017	January 16, 2022
60,000	4.70	March 13, 2017	March 13, 2022
40,000	5.10	March 28, 2017	March 28, 2022
10,000	5.10	April 9, 2017	April 9, 2022
25,000	5.30	April 12, 2017	April 12, 2022
120,000	5.60	April 18, 2017	April 18, 2022
75,000	6.33	May 18, 2017	May 18, 2022 ⁽²⁾
301,900	5.32	September 13, 2017	September 13, 2022 ⁽²⁾
2,134,850			

Notes:

- (1) Newstrike options converted to options in the Company as of May 26, 2015.
- (2) Grant made on a post-Consolidation basis.
- (3) 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.

Warrants

As at December 31, 2017, the Company had the following outstanding warrants issued in the capital of the Company and the same number of warrants are outstanding as at the date of this AIF.

Number of Warrants	Exercise Price C\$	Issue Date	Expiry Date
1,820,000	7.00	November 30, 2016	May 30, 2018 ⁽²⁾
4,031,000	8.00	July 20, 2017	July 20, 2018 ⁽¹⁾

Notes:

- (1) This grant was made on a post-Consolidation basis.
- (2) 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.

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". Prior to May 16, 2017, the Company's common shares 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-V 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 TSX

2017 ⁽¹⁾	High ⁽²⁾ C\$	Low ⁽²⁾ C\$	Close ⁽²⁾ C\$	Volume ⁽³⁾
January	5.30	4.10	5.30	2,346,520
February	5.60	4.70	5.10	2,221,474
March	5.30	4.55	5.00	1,069,348
April	6.00	4.95	5.30	1,642,661
May	6.66	5.20	6.24	4,631,491
June	7.99	5.76	5.87	5,350,390
July	6.05	4.98	5.24	4,122,633
August	5.40	4.82	5.32	2,046,345
September	6.05	5.11	5.50	2,018,675
October	5.68	4.93	5.12	2,427,784
November	5.23	3.72	3.87	5,050,191
December	4.67	3.60	4.62	2,525,611

Notes:

- (1) On May 12, 2017, the Company effected the Name Change and the Consolidation. The common shares of the Company began trading on a post-Consolidation basis on May 16, 2017.
- (2) Includes intra-day lows and highs, adjusted to reflect the Consolidation for all months listed.
- (3) TSX volume traded in the month, adjusted to reflect the Consolidation for all months listed.

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 our 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		
Greg McCunn ⁽⁴⁾⁽⁵⁾ British Columbia, Canada <i>Chief Executive Officer and Director</i>	February 1, 2017	Chief Executive Officer and Director of the Company (February 2017 to present); Chief Financial Officer of Asanko Gold Inc. (April 2011 to January 2017); Chief Executive Officer and Director of Stratton Resources Inc. (May 2011 to June 2013); Director of Auryn Resources Inc. (September 2012 to May 2013).
Mark D. Backens ⁽⁴⁾⁽⁵⁾ British Columbia, Canada <i>Director</i>	May 26, 2015	Corporate Director; Corporate Development and Mining Consultant (February 2013 to present); Company's Interim Chief Executive Officer (October 2015 to January 2017); Director of Investment Banking - Mining for Scotia Capital (January 2006 to January 2013).
George Brack ⁽²⁾⁽³⁾ British Columbia, Canada <i>Director</i>	July 31, 2014	Corporate Director.
Bryan A. Coates ⁽¹⁾⁽²⁾⁽³⁾ Quebec, Canada <i>Director and Chair of the Board</i>	July 31, 2014	President of Osisko Gold Royalties Ltd. an intermediate mining royalty and streaming company (July 2014 to present); Vice-President Finance and Chief Financial Officer Osisko Mining Corp. (2007 to 2014).
Stephen Lang ⁽¹⁾⁽⁴⁾ Missouri, USA <i>Director</i>	July 31, 2014	Corporate Director (2012 to present); President and Chief Executive Officer of Centerra Gold Inc. (2008 to 2012).
Paula Rogers ⁽¹⁾⁽²⁾⁽³⁾ British Columbia, Canada <i>Director</i>	August 3, 2011	Corporate Director (2011 to present); Chief Financial Officer of Castle Peak Mining Ltd. (2010 to 2014).
José Vizquerra-Benavides ⁽²⁾⁽³⁾⁽⁴⁾ Ontario, Canada <i>Director</i>	November 27, 2013	Corporate Director (2013 to present); Executive Vice-President of Strategic Development and Director of Osisko Mining Corp. a mineral exploration company (June 2016 to present); Chief Operating Officer and Director of Oban Mining Corporation (August 2015 to June 2016); President, Chief Executive Officer and Director of Oban Mining Corporation (April 2014 to August 2015); President, Chief Executive Officer and Director of Breval Mining Corporation and Oban Exploration (August 2011 to April 2014).

Name, Province and Country of Residence and Position with the Company	Director/ Officer Since	Principal Occupation for the Past Five Years
OFFICERS		
Colette Rustad British Columbia, Canada <i>Chief Financial Officer and Executive Vice President</i>	May 15, 2017	Company's Executive Vice President and Chief Financial Officer at (May 2017 to present); Principal, CBR Consulting (June 2016 - May 2017); Senior Vice President, Treasurer, Goldcorp Inc. (2015-2016); and Senior Vice-President Controller, Goldcorp Inc. (April 2007 to August 2014).
José Hector Figueroa⁽⁶⁾ Sonora, Mexico <i>Vice President, Operations</i>	February 1, 2017	Company's Vice President, Operations (February 2017 to February 28, 2018); Mining Consultant of Exploraciones Mojave (June 2016 to February 2017); General Manager of Cobre del Mayo (May 2014 to June 2016).
Paul Hosford British Columbia, Canada <i>Vice President, Project Development</i>	July 1, 2017	Company's Vice President, Project Development (July 2017 to present); Project Director, Rainy River of Newgold (January 2014 to February 2017); Feasibility Study Director of Newgold (December 2011 to December 2013).
Jason Gregg British Columbia, Canada <i>Executive Vice President, Human Resources</i>	March 1, 2017	Company's Executive Vice President, Human Resources (March 2017 to present); Vice President, Human Resources of Kirkland Lake Gold (December 2016 to February 2017); Vice President, Human Resources & Environment of Newmarket Gold (acquired by Kirkland Lake Gold) (July 2015 to November 2016); Senior Human Resources Consultant of Invictus Management Services (November 2014 to June 2015); Executive Human Resources Consultant (self- employed) (Feb 2014 to Oct 2014); Group Human Resources Manager- Americas of Nyrstar (August 2011 to July 2013).
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).
Miguel Soto⁽⁶⁾ Sonora, Mexico <i>Vice President, Exploration</i>	September 2005	Vice President Exploration (2012 to February 2018); Director of the Company (2005 to 2014); Chief Operating Officer of the Company (2005 to 2012).

Notes:

- (1) Denotes a member of the Audit Committee of the Company
- (2) Denotes a member of the Compensation Committee of the Company
- (3) Denotes a member of the Corporate Governance and Nominating Committee of the Company
- (4) Denotes a member of the Health, Safety, Environment and Community Committee of the Company
- (5) Effective February 1, 2017, Greg McCunn was appointed Chief Executive Officer and a director of the Company, Mark Backens resigned as Interim Chief Executive Officer of the Company and remained as a director.
- (6) Resigned on February 28, 2018.

Shareholdings of Directors and Officers

To the best of the Company's knowledge, as at December 31, 2017, directors and executive officers, as a group, beneficially owned, directly, or exercised control over 355,590 common shares (not including common shares issuable upon the exercise of stock options or common shares issuable upon the exercise of share purchase warrants) of the Company, representing 1% 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 Corporate Governance and Nominating Committee has developed, and the board of directors has adopted, guidelines which require all Company directors 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:

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 Project concessions. The Company has appealed the order.

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 of 3rd Floor, 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, 2017, or before that period but are still in effect:

1. Amended and Restated Stock Option Plan dated May 24, 2016, and the granting of stock options thereunder to directors, officers, employees and consultants of the Company; and,
2. Asset Purchase Agreement dated May 11, 2016, among the Company, Molimentales, Candelaria Mining Corp. and Grupo Minero Candelaria S.A.P.I de C.V. with respect to the disposition by the Company of the Caballo Blanco Project for cash consideration of \$12,500,000 and the assumption of a \$5,000,000 contingent liability.

TECHNICAL INFORMATION

The Company has included “scientific and technical information” concerning material mineral projects of the Company (“**Technical Information**”) in this AIF.

INTEREST OF EXPERTS

In May 2017, the Company filed the San Francisco Report prepared by Micon. The San Francisco 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 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.

Jorge Lozano, BSc, a certified member of the Mining and Metallurgical Society of America, a Qualified Person under NI 43-101 and the San Francisco Mine Manager of the Company, has approved the Technical Information disclosed regarding the San Francisco Property contained in this AIF.

In May 2017, the Company filed the Ana Paula Report. The Ana Paula Report is dated June 7, 2017, with an effective date of May 16, 2017. The Ana Paula Report was prepared by Daniel H. Neff, P.E., Art Ibrado, PhD, P.E., Taj Singh, P.Eng., Andrew Kelly, P.Eng, Gordon Zurowski, P.Eng., Pierre Desautels, P.Geo., Gilberto Dominguez, P.E. and James A. Cremeens, P.E., P.G. all of whom are independent Qualified Persons as defined in NI 43-101, other than Taj Singh who was the Company’s Vice President Engineering and Project Development.

Messrs. Neff, Ibrado, Kelly, Zurowski, Desautels, Dominguez, Cremeens and M3 Engineering & Technology Corp. 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.

At December 31, 2017, and at March 14, 2018, Taj Singh holds options in the Company that, if exercised, represent less than one percent of the outstanding common shares of the Company as at those dates.

Paul Hosford, BSc, P.Eng, a Qualified Person under NI 43-101 and the Vice President of Project Development of the Company, has approved the Technical Information disclosed regarding the Ana Paula Project contained in this AIF.

Deloitte LLP is independent within the meaning of the Rules of Professional Conduct of Chartered Professional Accountants of British Columbia and within the meaning of the U.S. Securities Act and the applicable rules and regulations thereunder adopted by the SEC and the PCAOB.

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 Paula Rogers, Stephen Lang and Bryan Coates, 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, Ms. Rogers, Mr. Lang and Mr. Coates 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 it has at least one audit committee financial expert serving on its Audit Committee. The Company's Board of Directors has determined that Paula Rogers and Bryan Coates 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
<p>Paula Rogers</p> <ul style="list-style-type: none"> - Director and Chair of the Audit Committee - Independent - Financially Literate 	<p>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. 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 extensive experience in multi-million dollar financings in the Canadian and US bank and public debt markets. Ms. Rogers has served as an officer of several public companies including Vice-President, Treasurer of NYSE-listed Goldcorp Inc. and Treasurer of Wheaton River Minerals Ltd. and Silver Wheaton Corp. Previous to that, she held various senior management roles at Finning International Inc. over a period of nine years. She currently serves on the board of Diversified Royalty Corp., where she also serves as the Chair of the Audit Committee.</p>
<p>Stephen Lang</p> <ul style="list-style-type: none"> - Director - Independent - Financially Literate 	<p>Mr. Lang has over 32 years of experience in the mining industry. He is a director of Centerra Gold Inc. and served as Centerra's President and CEO from 2008 to 2012, having joined Centerra in 2007 as Chief Operating Officer. Mr. Lang served as a director and Audit Committee member of Allied Nevada Gold Corp. from 2013 to 2015. Between 2003 and 2007, Mr. Lang served as Executive Vice President and Chief Operating Officer of Stillwater Mining Company. Prior to joining Stillwater, he was employed with Barrick Gold Corporation as Vice President and General Manager of Barrick Gold's Goldstrike/Meikle operation from 2001 to 2003. Prior to this he served as Vice President of Engineering and Project Development of Rio Algom, Limited in Santiago, Chile from 1999 to 2001. From 1996 to 1999, he served as Vice President and General Manager of Kinross Gold</p>

Committee Member	Relevant Education and Experience
	Corporation/Amex Gold Corporation's Fort Knox Mine in Fairbanks, Alaska. From 1981 to 1996, he held various positions with Santa Fe Pacific Gold Minerals Corporation.
Bryan Coates - Director - Independent - Financially Literate	Mr. Coates is President of Osisko Gold Royalties Ltd since June 2014 and has more than 30 years of progressive experience within the Canadian and international mining industry. He was previously Vice President Finance and Chief Financial Officer at Osisko Mining Corporation (2007-2014), which developed Canada's largest gold mine, Canadian Malartic. Prior to joining Osisko, he was Chief Financial Officer of Iamgold Corporation (2006-2007), Cambior Inc. (2001-2006) and Compañia Minera Antamina (1998-2001). Mr. Coates is a member of the Board of Directors of Falco Resources Ltd. and Golden Queen Mining Co. Ltd. Mr. Coates holds an Honours Bachelor of Commerce from Laurentian University, is a member of the Chartered Professional Accountants of Ontario and obtained ICD.D. designation from the Institute of Corporate Directors.

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, 2017, and the year ended December 31, 2016, in Canadian dollars were as follows:

	Year Ended December 31, 2017	Year Ended December 31, 2016
Audit fees ⁽¹⁾	C\$419,000	C\$280,000
Audit related fees ⁽²⁾	C\$80,500	C\$51,500
Tax fees ⁽³⁾	C\$nil	C\$nil
All other fees ⁽⁴⁾	C\$nil	C\$nil
Total	C\$499,500	C\$331,500

Notes:

- (1) "Audit Fees" means the aggregate fees billed by the Company's external auditor for audit and interim review services. The increase for the year ended December 31, 2017, is primarily due to timing of final billings related to the year ended December 31, 2016, and increase in the scope of the Company's activities at the San Francisco Mine and Ana Paula Project.
- (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 primarily relate to required services provided by Deloitte in connection with prospectus' filed by the Company during the years ended December 31, 2017 and 2016.
- (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 May 12, 2017, 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

ALIO GOLD INC.

(the “Company”)

AUDIT COMMITTEE MANDATE

As of March 1, 2018

1. Introduction

The Audit Committee (the “**Committee**” or 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.

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*, 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 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.

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 Chairman of the Board, or 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 circulated to the members of the Board. 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 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 functions and responsibilities set out below as well as any other functions 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 functions 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 the 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 as issued by the International Accounting Standards Board;
- (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 a prospectus or other securities offering document of the Company, press releases disclosure, or 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; and accounting, financial and disclosure controls (including, without limitation, controls over financial reporting), non-financial controls, and 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.

Audit Committee Hotline Whistleblower Procedures

The Audit Committee shall establish for (a) the receipt, retention, and treatment of complaints received by the Company regarding accounting, internal accounting controls, or auditing matters; and (b) the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters. Any such complaints or concerns that are received shall be reviewed by the Audit Committee and, if the Audit Committee determines that the matter requires further investigation, it will direct the Chair of the Audit Committee to engage outside advisors, as necessary or appropriate, to investigate the matter and will work with management and the general counsel to reach a satisfactory conclusion.

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: March 1, 2018