Empress Royalty Corp.

Annual Information Form
For The Fifteen Months Ended December 31, 2021
(Expressed in US dollars)

Dated as of April 29, 2022

ANNUAL INFORMATION FORM

ARTICLE 1
EXPLANATORY NOTES AND CAUTIONARY STATEMENTS

Section 1.1 Explanatory Notes

The information in this annual information form ("**AIF**"), unless otherwise indicated is given as of December 31, 2021. More current information may be available on our public website www.empressroyalty.com or on our SEDAR profile at www.sedar.com.

Unless otherwise noted or the context otherwise indicates, references to the "**Company**" or "**Empress**" mean Empress Royalty Corp. References to Empress Holding means Empress Royalty Holding Corp., the Company's wholly owned subsidiary.

In 2021, the Company changed its financial year-end from September 30 to December 31. The Company filed a notice of change in financial year-end on September 27, 2021 pursuant to Part 4 of NI 52-102 – Continuous Disclosure Obligations, which can be found on the Company's profile at www.sedar.com.

Consequently, the Company is reporting annual financial results for the fifteen (15) month transition period from September 30, 2020 to December 31, 2021. Going forward, the Company will revert to a customary quarterly reporting calendar based on a December 31 financial year, with fiscal quarters ending on the last day of March, June, September, and December each year.

The new fiscal year will better align the Company's financial reporting periods to those of its peer group in the mineral resource sector and better facilitate marketplace assessment of the Company's business performance.

Unless otherwise indicated, references in this AIF to "**$**" refer to United States dollars and references to "**C$**" refer to Canadian dollars. The Company elected to change its presentation currency from Canadian dollars to United States ("**US**") dollars. The change in presentation currency is a voluntary change which is accounted for retrospectively. Historical financial statements of Empress incorporated by reference in this AIF have been restated to US dollars and have been prepared in accordance with International Financial Reporting Standards.

Section 1.2 About Forward-Looking Information

This AIF and the documents incorporated into this AIF by reference, contain "**forward-looking statements**" within the meaning of applicable U.S. securities laws and "**forward-looking information**" within the meaning of the applicable Canadian securities legislation (forward-looking information and forward-looking statements being collectively herein after referred to as "**forward-looking statements**") that are based on expectations, estimates and projections as at the date of this AIF or the dates of the documents incorporated herein by reference, as applicable. These forward-looking statements include but are not limited to statements and information concerning the Company's investments, statements or information concerning the Company's growth strategy and the Company's future performance and

business prospects and opportunities. These statements reflect management's current assumptions and expectations and by their nature are subject to certain underlying assumptions, known and unknown risks and uncertainties and other factors which may cause actual results, performance or events to be materially different from those expressed or implied by such forward looking statements.

Any statements that involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "budget", "scheduled", "forecasts", "estimates", "believes" or "intends" or variations of such words and phrases or stating that certain actions, events or results "may" or "could", "would", "might", or "will" be taken to occur or be achieved) are not statements of historical fact and may be forward-looking statements and are intended to identify forward-looking statements, which include statements relating to, among other things, the ability of Empress to continue to successfully compete in the market.

These forward-looking statements are based on the beliefs of Empress' management, as well as on assumptions, which such management believes to be reasonable based on information currently available at the time such statements were made. However, there can be no assurance that the forward-looking statements will prove to be accurate.

By their nature, forward-looking statements are based on assumptions and involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance, or achievements of Empress to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements are subject to a variety of risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking statements.

There are risks associated with an investment in securities of Empress, including but not limited to risk factors relating to Empress and its business, and risks related to mining operations that may affect Empress due to royalty and stream acquisition business, which involves investing in mining issuers. A discussion of these risk factors may be found under the heading "Risk Factors" and "Information Concerning Empress — Risk Factors".

This list is not exhaustive of the factors that may affect any of forward-looking statements of Empress. Forward-looking statements are statements about the future and are inherently uncertain. Actual results could differ materially from those projected in the forward- looking statements as a result of the matters set out or incorporated by reference in this AIF generally and certain economic and business factors, some of which may be beyond the control of Empress. Some of the important risks and uncertainties that could affect forward- looking statements are described further under the heading "Risk Factors" and "Information Concerning Empress — Risk Factors" and in other documents incorporated by reference in this AIF. Empress do not intend, and do not assume any obligation, to update any forward-looking statements, other than as required by applicable law.

Section 1.3 Technical and Third-Party Information

Except where otherwise stated, the disclosure in this AIF relating to properties and operations on the properties in which Empress holds royalty and stream interests is based on information publicly disclosed

by the owners or operators of these properties and information/data available in the public domain as at April 29, 2022 (except where stated otherwise), and none of this information has been independently verified by Empress. Specifically, as a royalty and stream holder, Empress has limited, if any, access to properties included in its portfolio of royalties and streams. Additionally, Empress may from time to time receive operating information from the owners and operators of the properties, which it is not permitted to disclose to the public. Empress is dependent on the operators of the properties and their qualified persons to provide information to Empress or on publicly available information to prepare disclosure pertaining to properties and operations on the properties on which Empress holds royalty and stream interests and generally has limited or no ability to independently verify such information. Although Empress does not have any knowledge that such information may not be accurate, there can be no assurance that such third-party information is complete or accurate. Some information publicly reported by operators may relate to a larger property than the area covered by Empress's royalty interests. Empress's royalty interests often cover less than 100% and sometimes only a portion of the publicly reported Mineral Reserves and Mineral Resources.

Except where otherwise noted, the disclosure in this AIF relating to Mineral Reserve and Mineral Resource statements for individual properties is made as at December 31, 2021. In addition, numerical information presented in this AIF which has been derived from information publicly disclosed by owners or operators may have been rounded by Empress and, therefore, there may be some inconsistencies between the significant digits presented in this AIF and the information publicly disclosed by owners and operators of mineral properties. Empress considers its royalty and stream interests in the Pinos Royalty, the Sierra Antapite Stream, the Tahuehueto Stream, the Manica Royalty to be its only material mining investment projects (the "**Material Projects**") for the purposes of NI 43-101.

Information contained in this AIF with respect to each of the Material Projects has been prepared in accordance with the exemption set forth in section 9.2 of NI 43-101, unless otherwise noted.

The disclosure contained in this AIF of a scientific or technical nature for the Pinos Project is based on the technical report entitled NI 43-101 Preliminary Economic Assessment Study for the Pinos Project, Zacatecas, Mexico dated effective September 13, 2018, prepared by José Antonio Olmedo, Geol. Eng., M.Sc. and David J. Salari, P.Eng. filed by Candelaria with the British Columbia, Alberta and Ontario Securities Commissions and available under Candelaria's profile at www.sedar.com.

The disclosure contained in this AIF of a scientific or technical nature for the Manica project is based on a technical report entitled "NI 43-101 Technical Report on the Fair Bride Gold Project, Mozambique" dated February 22, 2021 with an effective date of February 1, 2021 (the "**Fair Bride Technical Report**"). The Fair Bride Technical Report was prepared in accordance with NI 43-101 and is available on the Company's profile at www.sedar.com.

The disclosure contained in this AIF of a scientific or technical nature for the Tahuehueto Gold Mine Project is based on the technical report entitled NI 43-101 Preliminary Feasibility Study dated April 25, 2022 with an effective date of February 23, 2022 (the "**Tahuehueto Technical Report**") prepared by Resource Development Associates Inc. filed by Altaley with the British Columbia and Alberta Securities Commissions and which is available under Altaley's profile at www.sedar.com.

Section 1.4 Glossary

The following is a glossary of certain definitions used in this AIF. Terms and abbreviations used in the schedules to this AIF are defined separately and the terms and abbreviations defined below are not used therein, except where otherwise indicated.

"**Accendo**" has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF.*

"Accordion Facility" has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF.*

"**Alliance Agreement**" has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF.*

"Altaley" means Altaley Mining Corporation (formerly Telson Mining Corporation).

"**Arrangement**" has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF.*

"**Audit Committee**" has the meaning ascribed to that term in *Section 9.6: Audit Committee.*

"**Big Ridge**" means Big Ridge Gold Corp. (formerly Alto Ventures Ltd.) has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF*.

"**Big Ridge Royalties Purchases**" has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF.*

"**Board**" means the board of directors of Empress as it may be comprised from time to time

"**Bond Agreement**" has the meaning ascribed to that term in *Section 11.1: Interests of Management and Others in Material Transactions.*

"**Business Investments**" has the meaning ascribed to that term in *Section 11.1: Interests of Management and Others in Material Transactions.*

"**Candelaria**" means Candelaria Mining Corp. and its Mexican subsidiaries.

"**Candelaria Pinos Royalty**" means the net smelter return royalty acquired by Empress pursuant to the Candelaria Pinos Royalty Agreement.

"Candelaria Pinos Royalty Agreement" means a 0.5% net smelter return royalty agreement between Candelaria and Empress dated November 24, 2020.

"**CRA**" means the Canada Revenue Agency.

"**Empress**" or the "**Company**" means Empress Royalty Corp.

"**Empress Holding**" means Empress Royalty Holding Corp.

"**Endeavour Cayman Agreement**" has the meaning ascribed to that term in *Section 11.1: Interests of Management and Others in Material Transactions.*

"Endeavour Financial" means Endeavour Financial AG.

"Endor" means Endor (Mauritius) Limited

"**Escrow Agent**" means Computershare Investor Services Inc.

"**Escrow Agreement**" has the meaning ascribed to that term in *Section 8.1: Escrowed Securities and Securities Subject to Contractual Restriction on Transfer.*

"**Escrow Shares**" has the meaning ascribed to that term in *Section 8.1: Escrowed Securities and Securities Subject to Restriction on Transfer.*

"**Explorator**" means Explorator LDA.

"Final Exchange Bulletin" means the bulletin which is issued following the submission of all required document and that evidence is the final TSXV acceptance of the listing of the Company.

"**Loan**" means the Company's initial draw of $4.5 million funded on closing the Accordion Facility.

"**Manica Project**" has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF*

"**Manica Royalty**" means the net smelter return royalty acquired by Empress pursuant to the Manica Royalty Agreement.

"Manica Royalty Agreement" means a 3.375% royalty until a total of 95,000 ounces of gold have been sold from the Manica Project and thereafter the percentage shall reduce to 1.125% and shall continue into perpetuity between Endor, MMP and Empress dated February 21, 2021, as amended.

"**McLeroy Pinos Royalty**" means the net smelter return royalty acquired by Empress pursuant to the McLeroy Pinos Royalty Agreement.

"**McLeroy Pinos Royalty Agreement**" means, collectively, a 0.5% net smelter return royalty agreement between Maria Guadeloupe McLeroy and Empress dated November 24, 2020.

"**Mineral Reserves"** and **Mineral Resources"** have the meanings defined NI 43-101.

"**MMP**" means Mutapa Mining & Processing LDA.

"**Nebari**" means Nebari Natural Resources Credit Fund I, LP.

"**NSRs**" has the meaning ascribed to that term in *Section 3: General Development of the Business.*

"**OID**" means an original issue discount of 6% is applicable to all loans made under the Accordion Facility.

"**Pinos Project**" has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF.*

"**Pinos Royalty**" means the Candelaria Pinos Royalty and the McLeroy Pinos Royalty.

"**Pinos Technical Report**" means a technical report entitled *NI 43-101 Preliminary Economic Assessment Study for the Pinos Project, Zacatecas, Mexico* dated effective September 13, 2018, prepared by José Antonio Olmedo, Geol. Eng., M.Sc. and David J. Salari, P.Eng. filed by Candelaria with the British Columbia, Alberta and Ontario Securities Commissions and available under Candelaria's profile at www.sedar.com.

"**Principals**" has the meaning ascribed to that term in *Section 8.1: Escrowed Securities and Securities Subject to Restriction on Transfer of this AIF*

"**Resources**" means Empress Resources Corp.

*"***Shares"** means common shares of Empress Royalty Corp. or Empress*.*

"**Sierra Antapite**" means Sierra Antapite S.A.C.

"Sierra Antapite Gold Stream Agreement" means the metal (gold) purchase and sale agreement with Sierra Antapite dated July 28, 2021.

"**Sierra Antapite Mine"** has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF.*

"Sierra Antapite Stream" has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF.*

"**Streams**" has the meaning ascribed to that term in *Section 3: General Development of the Business.*

*"***Tahuehueto Project***"* has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF.*

"Tahuehueto Silver Stream Agreement" means the metal (silver) purchase and sale stream agreement with Real de la Bufa SA de CV, a Mexican subsidiary of Altaley dated April 14, 2021.

"**Tahuehueto Stream**" has the meaning ascribed to that term in *Section 3.2: History from date of incorporation to date of AIF.*

"Tahuehueto Technical Report" means a technical report entitled NI 43-101 Preliminary Feasibility Study dated April 25, 2022 with an effective date of February 23, 2022 (the "Tahuehueto Technical Report" prepared by Resource Development Associates Inc. filed by Altaley with the British Columbia and Alberta Securities Commissions and which is available under Altaley's profile at www.sedar.com.

"**Terra Capital**" Terra Capital Natural Resource Fund Pty Ltd.

"**TSXV**" means the TSX Venture Exchange.

ARTICLE 2
CORPORATE STRUCTURE

Section 2.1 Name, Address, and Incorporation

Empress was incorporated under the *Business Corporations Act* (British Columbia) on March 2, 2020 with an unlimited number of common shares without par value authorized for issue. Empress is a reporting issuer in the provinces of British Columbia and Alberta, and its head office and registered and records office is located at Unit 1 – 15782 Marine Drive, White Rock, B.C., Canada, V4B 1E6. There have been no amendments to its articles or other constating documents since its incorporation.

Empress began trading as Tier 2 investment issuer on the TSX Venture Exchange under the symbol "EMPR" on December 29, 2020.

Section 2.2 Intercorporate Relationships

Empress Royalty Holding Corp. ("**Empress Holding**") was incorporated under the Business Corporations Act on November 15, 2021, as a wholly owned subsidiary of Empress for the sole purpose of holding the Nebari security. In December 2021, the Company assigned all of its royalty and stream interests to Empress Holding. All future royalty and stream investments funded by Nebari will also be held by Empress Holding.

ARTICLE 3

GENERAL DEVELOPMENT OF THE BUSINESS

Empress was incorporated as an investment based company focused on creating gold and silver metal purchase agreements ("**Streams**"), net smelter return ("**NSR**") royalties, gross value return royalties, net profit interests, gross proceeds royalties, and non-operating interests in mining projects that provide the right to the holder of a percentage of the gross revenue from metals produced from the project or a percentage of the gross revenue from metals produced from the project after deducting specified costs, if any, respectively.

Section 3.1 General

Narrative Description of Empress' Business.

Empress is a growth-oriented precious metal royalty and streaming company that is focused on maximizing returns for its shareholders by growing its asset base, both organically and through accretive investments and other high-quality royalties, streams and similar interests.

Empress' main focus is on high quality, long-life precious metal assets located in jurisdictions that are favourable to mining and operated by established mining companies, as these assets provide the best

risk/return profile. Given that a core aspect of Empress' business is the ability to compete for investment opportunities, Empress plans to maintain a strong balance sheet and ability to deploy capital.

Section 3.2 History from date of incorporation to date of AIF

Since inception on March 2, 2020 to December 31, 2020

Big Ridge Royalties Purchases

On July 7, 2020, Empress Resources Corp. ("**Resources**") and Big Ridge Gold Corp. (formerly Alto Ventures Ltd.) ("**Big Ridge**") completed a business combination which was effected by a plan of arrangement approved by the shareholders of Resources (the "**Arrangement**"). Under the Arrangement, Big Ridge acquired all of the issued and outstanding common shares of Resources in exchange for approximately one common share of Big Ridge such that at the effective time of the Arrangement, Resources shareholders held 52% of the outstanding common shares of Big Ridge.

In conjunction with the Arrangement, Empress acquired 13 NSR royalties on exploration properties from Big Ridge (the "**Big Ridge Royalties Purchase**") and a portfolio of marketable securities in exchange for 4,615,384 Shares of Empress, which Big Ridge subsequently distributed as a dividend to the shareholders of Big Ridge. In addition, Empress issued Resources 5,000,000 Shares for proceeds of C$250,000, which Resources then distributed to the shareholders of Resources. After giving effect to these transactions, Empress had a total of 9,615,385 Shares outstanding; former shareholders of Resources held 52% of Empress' then outstanding Shares, and Big Ridge shareholders held 48% of Empress' then outstanding Shares.

The 13 NSR royalties acquired from Big Ridge pursuant to the Big Ridge Royalties Purchase are not material investments of the Company as at the date of this AIF.

Alliance Agreement

In August 2020 Empress entered into an agreement (the "**Accendo Agreement**") with Accendo Banco, S.A. ("**Accendo**"). The Alliance Agreement terminated automatically without obligation on behalf of the Company on September 30, 2021, the commencement date of the Accendo liquidation process.

During the term of the Accendo Agreement the Company paid Accendo success fees of $30,000 on the completion of the acquisition of the Candelaria Pinos Royalty and $100,000 on the completion of the streaming agreement on production from the Tahuehueto Project, located in Mexico, owned and operated by Altaley Mining Corporation.

Pinos Royalty Agreements

In November 2020, Empress completed the acquisition of the Pinos Royalty in Mexico from Candelaria Mining Corp. and its wholly owned subsidiaries ("**Candelaria**"), (the "**Candelaria Pinos Royalty Agreement**") for aggregate consideration of $750,000. Under the terms of the Candelaria Pinos Royalty Agreement, Empress acquired a 0.5% NSR royalty on the Pinos Project. The Candelaria Pinos Royalty is a new royalty.

Further in November 2020, Empress purchased an existing 0.5% NSR royalty (the "**McLeroy-Pinos Royalty Agreement**") on the Pinos Project from existing royalty holder Maria Guadalupe McLeroy pursuant to the McLeroy-Pinos Royalty Agreement on the same terms and conditions as the Candelaria Pinos Royalty Agreement.

The Candelaria Pinos Royalty and the McLeroy Pinos Royalty combine to a 1% NSR royalty (the "**Pinos Royalty**").

2021 and subsequently to the date of the AIF

Manica Royalty Agreement

In February 2021, Empress, Mutapa Mining & Processing LDA ("**MMP**") and Endor (Mauritius) Limited (**"Endor**") entered into a royalty purchase agreement (the "**Manica Royalty Agreement**") for the creation of a royalty on gold sales from the Manica hard rock gold project (the "**Manica Project**"), located in Mozambique and operated by MMP, for consideration of $2,000,000 (the "**Manica Royalty**"). The royalty is secured by a first ranking security interest in certain assets of MMP.

Explorator LDA ("**Explorator**") is a company incorporated and tax resident in Mozambique. Explorator is a mining company with interests in the Manica Project. MMP is a company incorporated and tax resident in Mozambique with experience and know-how in the mining sector, and with the necessary manpower and equipment to assist Exporator in the development of its mining rights. Explorator and MMP have entered into an agreement for the development of the Manica Project. Endor is a company incorporated and tax resident in Mauritius and is a company engaged in the international market of commodities. Endor provides services to Explorator and MMP for the sale of gold extracted from the Manica Project. Endor and MMP entered into a royalty purchase agreement that provides that Endor shall grant to Empress the royalty as defined in the agreement. Neither Endor nor MMP hold any underlying right, claim or concession in relation to the Manica mineral property.

The Manica royalty is 3.375% generated from the sale of gold from the Manica project until a total of 95,000 oz of gold have been sold, and thereafter the total royalty percentage shall reduce to 1.125% and shall continue into perpetuity.

Empress closed the initial Manica Royalty Agreement in April 2021 and paid the $2,000,000 consideration for 2.25% of the revenues generated from the sale of gold from the Manica Project until a total of 95,000 oz of gold have been sold, and thereafter the percentage shall reduce to 0.75% and shall continue into perpetuity. In January 2022, the Company increased its royalty on the Manica Project by amending the Manica Royalty Agreement by investing an additional $1,000,000 resulting in a total royalty of 3.375% until a total of 95,000 oz of gold have been sold, and thereafter the total royalty percentage shall reduce to 1.125% and shall continue into perpetuity.

Tahuehueto Silver Stream Agreement

April 2021, Empress entered into a metal (silver) purchase and sale stream agreement (the "**Tahuehueto Silver Stream Agreement**") with Real de la Bufa SA de CV, a Mexican subsidiary of Altaley Mining

Corporation (formerly Telson Mining Corporation) ("**Altaley**"), a Canadian corporation, that operates the Tahuehueto silver project located in Mexico (the "**Tahuehueto Project**").

A trust agreement ("**Trust Agreement**") was executed in November 2020, between (i) Minas de Campo Morado, S.A. de C.V., Altaley, Samarkand de México, S.A. de C.V. and Real de la Bufa de CV (jointly as Trustors and Second Place Beneficiaries); (ii) Trafigura México, S.A. de C.V. as First Place Beneficiary; and (iii) Banco Nacional de México, S.A., as Trustee (the "**Trust**").

Altaley, through its wholly owned subsidiary Samarkand de México, S.A. de C.V., owns, through the Trust Agreement, 99.99% of Real de la Bufa SA de CV. The Trust is the registered owner of the Tahuehueto Project and Real de la Bufa SA de CV is the operator of the Tahuehueto Project.

Empress made an upfront deposit of $5,000,000 to Real de la Bufa SA de CV paid in two tranches ($2,000,000 paid in April 2021 and $3,000,000 paid in July 2021).

The upfront deposit represents a prepayment of a portion of the purchase price for the sale of silver to Empress. In return for the deposit, Real de la Bufa SA de CV promises to deliver to Empress an applicable silver percentage (as defined) of the silver production from the Tahuehueto Project.

Pursuant to the Tahuehueto Silver Stream Agreement, the Company has the right to acquire 100% of payable silver production at 20% of the related off-take price for the first 1,250,000 payable ounces, and thereafter the percentage will step down to 20% of payable silver production for a maximum of 10 years from the date the first concentrate is shipped out of the on-site Tahuehueto milling facility at completion of its construction (the "**Tahuehueto Stream**").

Empress has no right in respect of the mining operation other than a right to purchase silver under the metal stream arrangement.

Sierra Antapite Gold Stream Agreement

In July 2021, Empress entered into a metal (gold) purchase and sale agreement (the "**Sierra Antapite Gold Stream Agreement**") on the Sierra Antapite mine (the "**Sierra Antapite Mine**") with Sierra Antapite S.A.C. (the "**Sierra Antapite**"), a Peruvian company that owns and operates the Sierra Antapite Mine (the "**Sierra Antapite Stream**").

The Sierra Antapite Stream is on gold production from the Sierra Antapite Mine at 20% of the gold spot price based on 4.5% of gold production for the first 11,000 gold ounces and 1% thereafter for life of mine. The stream is registered and secured against the Sierra Antapite Mine. In consideration, the Company paid $5,000,000 in July 2021 for 2.25% of gold production, a further $2,500,000 in October 2021 for a total 3.375% of gold production, and finally in December 2021, the Company invested a final $2,500,000 for a total 4.5% of gold production.

Empress would not have any right in respect of the mining operation other than a right to purchase gold under the metal stream arrangement.

Nebari Accordion Facility

In December 2021, the Company closed a $15,000,000 accordion credit facility (the "**Accordion Facility**") agreement with Nebari Natural Resources Credit Fund I, LP (**"Nebari**"). The Company's initial draw of $4,500,000 (the **"Loan**") was funded on closing. The Company may apply to Nebari to draw down additional loans as the Company identifies investments it wishes to fund under the Accordion Facility.

The Accordion Facility bears interest at Libor (1% floor) plus 10% per annum. The Accordion Facility has an initial term of two years from the date of the Loan and is secured against the existing investment assets of the Company. The Accordion Facility is subject to standard events of default, as well as a requirement to maintain positive working capital and no less than C$750,000 of cash. As at December 31, 2021 and the date of this AIF, the Company is not in default of these covenants.

An arrangement fee of 2.0% of each loan made under the Accordion Facility is payable on closing together with reimbursement of Nebari's costs for each loan made. In addition, an original issue discount (the "**OID**") of 6% is applicable to all loans made under the Accordion Facility resulting in the Loan being $4,787,234.

Pursuant to the terms of the Accordion Facility, the Company issued Nebari 7,500,000 warrants exercisable into common shares of the Company at an exercise price of C$0.27 until December 23, 2023. Additional warrants will be issued for each additional loan drawn down under the Accordion Facility.

ARTICLE 4
DESCRIPTION OF THE BUSINESS

Section 4.1 General

Empress intends to focus the majority of its resources on investing in the creation of precious metals royalty or streaming opportunities with small to mid-tier producing or development stage mining companies, where immediate or near-term revenue can be generated. In very limited cases, Empress may invest in new grass roots royalties.

Royalty and Stream Portfolio

The following table summarizes the royalty and stream interests that Empress owns indirectly through Empress Holding.

Property	Operator	Location	Stage	Metal	Terms
Producing					
Sierra Antapite	Sierra Sun Group	Peru	Production	Gold	4.5% Stream
Near Production					
Pinos	Candelaria Mining Corp.	Mexico	Development	Gold & Silver	1% NSR

Manica	Mutapa Mining & Processing	Mozambique	Development	Gold	3.375% NSR
Tahuehueto	Altaley Mining Corp.	Mexico	Development	Silver	100% Stream
Exploration					
Windfall East	Osisko Mining Inc.	Quebec	Exploration	Gold	1% NSR
Destiny	Big Ridge Gold Corp.	Quebec	NI 43-101	Gold	0.5% NSR / 1% NSR
Oxford Lake	Big Ridge Gold Corp.	Manitoba	Exploration	Gold	0.5% NSR / 1% NSR
Coldstream	Goldshore Resources Inc.	Ontario	Exploration	Gold	0.5% NSR / 1% NSR
Fisher	Big Ridge Gold Corp.	Ontario	Exploration	Copper/Zinc	0.5% NSR / 1% NSR
Dog Lake	Big Ridge Gold Corp.	Ontario	Exploration	Gold	1% NSR
Brookbank East	Caprock Mining Corp.	Ontario	Exploration	Gold	1% NSR
Miner Lake	Caprock Mining Corp.	Ontario	Exploration	Gold	0.5% NSR / 1% NSR
Greenoaks	Caprock Mining Corp.	Ontario	Exploration	Gold	0.5% NSR
Mud Lake	Caprock Mining Corp.	Ontario	Exploration	Gold	0.5% NSR / 1% NSR
Three Towers	Caprock Mining Corp.	Ontario	Exploration	Gold	0.5% NSR
Golden Heart	Caprock Mining Corp.	Ontario	Exploration	Gold	1% NSR
Empress	Sanatana Resources Inc.	Ontario	Exploration	Gold	1% NSR

Further details regarding the agreements entered into by Empress can be found under the heading "*Section 3.2 History from Incorporation to date of AIF".*

Competitive Conditions

Empress competes with other companies that operate in the royalty and streaming market segment to create or acquire royalties and streams. Empress also competes with other companies which provide financing to mining companies. The Company faces significant competition as it seeks to partner with a limited pool of operators of mineral projects that are seeking financing through the creation of new cash or near cash generating royalties and streams . Empress's current employees and advisors have

experience in mining analysis and investments, with a particular understanding of the royalty and stream sector.

Components

Empress expects to continue to create royalties, streams and other rights in the future. Commodity market trends can be cyclical in nature, and a general change in commodity prices would result in changes in revenue received.

Employees

As at the date of this AIF, Empress has one full time employee and two full time consultants. Empress is further supported by Endeavor Financial and Jeremy Bond pursuant to investment management services agreements. The Company's corporate compliance and financial reporting functions including the duties and responsibilities of the Chief Financial Officer and of the Corporate Secretary are performed pursuant to a professional services agreement.

Skill and Knowledge

The Company and its investment advisors have the requisite skill and knowledge to identify and evaluate potential opportunities including: (i) conducting and overseeing due diligence; (ii) identifying, structuring and negotiating transactions for possible investment; (iii) developing and assisting in the execution of business investments; (iv) review cash flow models, valuations of streams/royalties.

Foreign Operations

Empress currently receives or expects to receive royalty and stream payments from mines or operations in Mexico, Mozambique, Peru and Canada. Empress may in the future receive payments from mines or operations in other countries. Changes in legislation, regulations or governments in such countries are beyond Empress's control and could adversely affect the Company's business. The effect of these factors cannot be predicted with any accuracy by Empress or its management.

Section 4.2 Risk Factors

Due to the nature of Empress' business, the legal and economic climate in which it operates and its present stage of development and proposed operations, Empress will be subject to significant risks. Empress' future development and actual operating results may be very different from those expected as at the date of this AIF.

The following is a summary of certain risk factors relating to the business of Empress and is qualified in its entirety by reference to, and must be read in conjunction with, the detailed information appearing elsewhere in this AIF.

Risk Factors Relating to Empress

The market price of Empress Shares may be volatile, which could result in substantial losses for holders of Empress Shares

The market price of Empress Shares could be subject to significant fluctuations. In addition, securities markets worldwide have experienced, and are likely to continue to experience, significant price and volume fluctuations. This market volatility, as well as general economic, market or political conditions and the risk factors described in this AIF could subject the market price of Empress Shares to wide price fluctuations regardless of Empress's operating performance.

The ability of Empress to pay dividends will be dependent on the financial condition of Empress

The declaration, timing, amount and payment of dividends are at the discretion of the Board and will depend upon Empress' future earnings, cash flows, acquisition capital requirements and financial condition, and other relevant factors. There can be no assurance that Empress will declare a dividend on a quarterly, annual or other basis. See *Section 5: Dividends and Other Distributions*.

The Company may have to raise additional capital through the issuance of additional equity, which could result in dilution to shareholders

The issuance of additional Common Shares or of securities convertible into or exchangeable or exercisable for Common Shares may have a dilutive effect on the interests of shareholders. The number of Common Shares that the Company is authorized to issue is unlimited. The Company may, in its sole discretion, subject to applicable law and the rules of the TSX-V, issue additional Common Shares from time to time (including pursuant to any equity-based compensation plans that may be introduced in the future), and the equity interest in the Company of the holders of its Common Shares may be diluted thereby.

The Company may require new capital to continue to grow its business and there are no assurances that capital will be available when needed, if at all. It is likely that, at least to some extent, such additional capital will be raised through the issuance of additional equity, which could result in substantial dilution to shareholders.

The CRA's recent focus on foreign income earned by Canadian companies may result in adverse tax consequences for Empress

There has been a recent focus by the CRA on income earned by foreign subsidiaries of Canadian companies. Empress does not currently have any foreign subsidiaries but may in the future. Although management believes that Empress will be in full compliance with Canadian tax law, there can be no assurance that Empress' structure may not be challenged in future. In the event the CRA successfully challenges Empress' structure, this could potentially result in additional federal and provincial taxes and penalties, which may have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Changes in or in the interpretation of tax legislation or accounting rules could affect the profitability of Empress

Changes to, or differing interpretation of, taxation laws or regulations in any of Canada or any of the countries in which Empress' assets or relevant contracting parties or underlying properties are located could result in some or all of Empress' profits being subject to additional taxation. No assurance can be given that new taxation rules or accounting policies will not be enacted or that existing rules will not be applied in a manner which could result in Empress' profits being subject to additional taxation or which could otherwise have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities. In addition, the introduction of new tax rules or accounting policies, or changes to, or differing interpretations of, or application of, existing tax rules or accounting policies could make royalties or other interests held by Empress less attractive to counterparties. Such changes could adversely affect Empress' ability to acquire new assets or make future investments.

The Company may be unable to repay its indebtedness and comply with its obligations under a credit facility

The Company entered into the Facility Agreement to be used primarily to fund the creation of royalties and streams. These investments resulted in significant drawings under the Facility Agreement and the Company would be required to use a portion of its cash flow to service principal and interest on the debt thereunder, which will limit the cash flow available for other business opportunities. The Company's ability to make scheduled payments of the principal of, to pay interest on, or to refinance indebtedness will depend on its future performance, which is subject to economic, financial, competitive and other factors beyond its control. The Company may not generate future cash flow that is sufficient to service debt and make necessary capital expenditures. If the Company is unable to generate such cash flow, it may be required to adopt one or more alternatives, such as reducing or eliminating dividends, if any, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. The Company's ability to refinance indebtedness will depend on the capital markets and its financial condition at such time. The Company may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on its debt obligations.

The terms of the Facility Agreement require the Company to satisfy various affirmative and negative covenants. These covenants may limit, among other things, the Company's ability to incur further indebtedness, create certain liens on assets or engage in certain types of transactions. These covenants could also limit the ability of the Company to amend its royalty or stream contracts without the consent of the lenders. There can be no assurances that, in the future, the Company will not be limited in its ability to respond to changes in its business or competitive activities or be restricted in its ability to engage in mergers, acquisitions or dispositions of assets. Furthermore, a failure to comply with these covenants, could likely result in an event of default under such credit facilities and would allow the lenders to accelerate the debt, which could materially and adversely affect the Company's business, financial condition, results of operations and the trading price of its securities.

Empress' operations will depend on information systems that may be vulnerable to cyber security threats

The Company's operations depend, in part, on its IT systems, networks, equipment and software and the security of these systems. The Company depends on various IT systems to process and record financial and technical data, administer its contracts with its counterparties and communicate with employees and third parties. These IT systems, and those of its third-party service providers and vendors and the counterparties under its contracts for royalties may be vulnerable to an increasing number of continually evolving cyber security risks. Unauthorized third parties may be able to penetrate network security and misappropriate or compromise confidential information, create system disruptions or cause shutdowns. Any such breach or compromise may go undetected for an extended period of time.

A significant breach of the Company's IT systems or data security or misuse of data, particularly if such breach or misuse goes undetected for an extended period of time, could result in significant costs, loss of revenue, fines or lawsuits and damage to reputation. The costs to eliminate or alleviate cyber or other security problems, including bugs, viruses, worms, malware and other security vulnerabilities, could be significant, and the Company's efforts to address these problems may not be successful. The significance of any cyber-security breach is difficult to quantify but may in certain circumstances be material and could have a material adverse effect on the Company's financial condition, results of operations and the trading price of its securities.

Global financial conditions may destabilize

Global financial conditions could suddenly and rapidly destabilize in response to future events, as government authorities may have limited resources to respond to future crises. Future crises may be precipitated by any number of causes, including natural disasters, geopolitical instability, changes to energy prices or sovereign defaults. Any sudden or rapid destabilization of global economic conditions could negatively impact Empress' ability, or the ability of the owners or operators of the properties in respect of which it holds royalties or other interests, to obtain equity or debt financing or make other suitable arrangements to finance their projects. In the event of increased levels of volatility or a rapid destabilization of global economic conditions, Empress' profitability, results of operations and financial condition and the trading price of its securities could be adversely affected. To date, the COVID-19 pandemic has had a significantly negative impact on the global economy, as well as on certain commodity prices, and the pandemic may continue to have an adverse effect on the Company.

Risks Factors Relating to the Business of Empress

Royalty acquisitions contemplated by Empress may require third party consents or approvals

Empress may enter into agreements to acquire royalty or other interests that require the consent or approval of third parties (including governments or regulatory bodies) in order to complete the contemplated acquisition. There can be no assurance that such third parties, which may include shareholders of the entity disposing of the royalty interests, regulatory bodies or entities with an interest in the applicable property or others, will provide the required approval or consent in a timely manner or at all and without conditions unacceptable to Empress. Failure to complete royalty acquisitions may result in a material adverse effect on Empress' profitability, results of operation and financial condition.

The Company is exposed to counterparty and liquidity risk, and any delay or failure of counterparties to make payments will affect the revenues of the Company

The Company is exposed to various counterparty risks including, but not limited to (i) the Company's royalty counterparties; (ii) other companies that have payables owing to the Company; (iii) the Company's insurance providers; and (iv) the Company's lenders. The Company is also exposed to liquidity risks in meeting its operating expenditure requirements in instances where cash positions are unable to be maintained or appropriate financing is unavailable. These factors may impact the ability of the Company to obtain loans or other credit facilities or obtain equity financing in the future or to obtain them on terms favourable to the Company.

The properties underlying royalty and other interests are subject to exploration, development and mining risks

Empress seeks to create royalty and other interests in mineral properties from companies that have near term development or producing mines but may also invest in exploration or development projects. Royalties are non-operating interests in mining projects that provide the right to revenue or production from the project after deducting specified costs, if any. Mineral exploration and development involve a high degree of risk and few properties which are explored are ultimately developed into producing mines. The long-term profitability of Empress' operations will be in part directly related to the cost and ultimate success of the operating mines in which Empress has a royalty or other interest, which may be affected by a number of factors beyond Empress' control.

Operating a producing mine involves many risks, which even a combination of experience, knowledge and careful evaluation may not be able to overcome. Operations in which Empress has a direct or indirect interest are and will be subject to all the hazards and risks normally incidental to exploration, development and production of mineral resources, any of which could result in work stoppages, damage to property, and possible environmental damage.

Hazards such as unusual or unexpected geological formations and other conditions such as formation pressures, fire, power outages, flooding, explorations, cave-ins, landslides and other natural or human-caused disasters and the inability to obtain suitable machinery, equipment or labour are involved in mineral exploration, development and operation. Operating companies which operate on properties on which Empress has an interest, or in which Empress may acquire an interest, may become subject to liability for pollution, cave-ins or hazards against which they cannot insure or against which they may elect not to insure. The payment of such liabilities may have a material, adverse effect on the financial position of such operating companies, and in turn, may have a material adverse effect on the financial position of Empress.

In addition, labour disruptions are a hazard to mineral exploration, development and operation. There is always a risk that strikes or other types of conflict with unions or employees may occur at any one of the properties on which Empress may hold a royalty or other interest. Although it is uncertain whether labour disruptions will be used to advocate labour, political or social goals in the future, labour disruptions could have a material adverse effect on the results of operations of the mineral properties in which Empress may hold an interest.

Royalties are based on mine life and in some instances a drop in metal prices or a change in metallurgy may result in a project being shut down with a material, adverse effect on that company's financial position, and in turn, may have a material adverse effect on the financial position of Empress.

Some of the properties in respect of which the Company has an interest may never achieve commercial production

Some of the projects or properties in respect of which the Company has a royalty or stream interest are in the construction or development stage. There can be no assurance that construction or development will be completed on a timely basis or at all.

To the extent that any of the owners or operators of properties in respect of which the Company holds a royalty or stream interest default under their credit and other financing documents, this could delay or inhibit operations at the relevant properties, which could have a material adverse effect on the Company's business, financial condition, results of operations and the trading price of its securities.

The registration of royalty or other interests may not protect interests therein

The right to record or register royalties, streaming arrangements or other interests in various registries or mining recorders offices may not necessarily provide any protection to the royalty or interest holder. Accordingly, the royalty or interest holder may be subject to risk from third parties. While Empress seeks to confirm the existence, validity, enforceability, terms and geographic extent of its royalty interests, there can be no assurance that disputes or other problems concerning these and other matters will not arise. Confirming these matters is complex and is subject to the application of the laws of each jurisdiction to the particular circumstances of each parcel of mining property and to the documents reflecting the stream or royalty interests. Similarly, royalty interests in many jurisdictions are contractual in nature, rather than interests in land, and therefore may be subject to change of control, bankruptcy or insolvency of operators, and Empress' royalty interests could be materially restricted, reduced or set aside through judicial or administrative proceedings. Empress may often not have the protection of security interests, or its security interests may be found to be unenforceable, that could increase its recovery in such situations. In addition, Empress will be subject to the risk that its counterparties under royalty arrangements do not have or lose valid title to the mineral property.

The COVID-19 pandemic may significantly impact Empress

The current COVID-19 (corona virus) global health pandemic is significantly impacting the global economy and commodity and financial markets. The full extent and impact of the COVID-19 pandemic is unknown and to date has included extreme volatility in financial markets, a slowdown in economic activity, extreme volatility in commodity prices (including gold) and has raised the prospect of an extended global recession. The international response to COVID-19 has led to significant restrictions on travel, temporary business closures, quarantines and a general reduction in consumer activity, globally. As well, as efforts are undertaken to slow the spread of the COVID-19 pandemic, the operation and development of mining projects may be impacted. To date, a number of mining projects have been suspended as cases of COVID19 have been confirmed, for precautionary purposes or as governments have declared a state of emergency or taken other actions. If the operation or development of any property in which Empress may hold a royalty, stream or other interest from time to time is suspended

or the development is delayed for precautionary purposes or as governments declare states of emergency or other actions are taken in an effort to combat the spread of COVID-19, it may have a material adverse impact on Empress' profitability, results of operations, financial condition and the trading price of Empress' securities.

The broader impact of the COVID-19 pandemic on investors, businesses, the global economy or financial and commodity markets may have a material adverse effect on the Company.

Changes in commodity prices will affect revenues generated from the portfolio of royalties and ultimately Empress' profitability

The revenue derived by the Company from its asset portfolio will be significantly affected by changes in the prices of the commodities underlying the Company's royalty and stream interests.

Commodity prices fluctuate on a daily basis and are affected by numerous factors including, but not limited to, levels of supply and demand, industrial investment levels, inflation and the level of interest rates, the strength of the US dollar and geopolitical events. Such external economic factors are in turn influenced by changes in international investment patterns, monetary systems and political developments.

Material price declines may result in a decrease in revenue or, in the case of severe declines that cause a suspension or termination of production by relevant operators, a complete cessation of revenue from royalties or other interests applicable to one or more relevant commodities. Moreover, the broader commodity market tends to be cyclical, and a general downturn in overall commodity prices could result in a significant decrease in overall revenue. Any such price decline may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of Empress Shares.

Certain of the precious metal products subject to royalty or other interests are, will or may be produced as by-product metals, therefore, production decisions and the economic cut-off applied to the reporting of Mineral Reserves and Mineral Resources, as applicable, will be influenced by changes in the commodity prices of other metals at the mines. Where Empress' interest is in respect of a by-product metal, commodity prices of the by-product metal and the principal metal may diverge such that the interests of owners or operators and Empress may not be aligned.

Empress may in future acquire royalties or other interests that are subject to buy-back or buy-down rights in favor of the counterparties that could adversely affect the revenues generated from the asset portfolio

Buy-back or buy-down rights (if granted in future by Empress) exercised by an operator may permanently eliminate or reduce Empress' interest or entitlement under the relevant royalty or other interest. The exercise of any buy-back or buy-down rights may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

The Company may enter into acquisitions or other royalty or streaming transactions from time to time, which may be material, may involve the issuance of the Company's securities or may involve the incurrence of indebtedness and will be subject to transaction-specific risks

The Company regularly reviews opportunities to create or acquire existing royalties or streams, to create new royalty, streaming or other arrangements through the financing of mining projects, financing of new acquisitions or to acquire companies that hold royalties or streams in respect of mineral properties. At any given time, the Company may have various types of transactions and acquisition opportunities in various stages of active review, including submissions of indications of interest and participation in discussions or negotiations in respect of such transactions. This process also involves the engagement of consultants and advisors to assist in analyzing particular opportunities. Any such acquisition or transaction could be material to the Company and may involve the issuance of Common Shares or other securities by the Company or the incurrence of indebtedness to fund any such acquisition. In addition, any such transaction may have other transaction-specific risks associated with it, including risks related to the completion of the transaction, the project operators or the jurisdictions in which assets may be acquired or underlying properties located. Additionally, the Company may consider opportunities to restructure its royalty arrangements where it believes such a restructuring may provide a long-term benefit to the Company, even if such restructuring may reduce near-term revenues or result in the Company incurring transaction-related costs.

Empress will have no or limited control over the operation of the properties in respect of which it holds an interest and the operators' failure to perform or decision to cease or suspend operations will affect the revenues of Empress

Empress is not directly involved in the operation of mines. The revenue derived from its asset portfolio will be based on production by third-party property owners and operators. The owners and operators generally will have the power to determine the manner in which the properties are exploited, including decisions to expand, continue or reduce, suspend or discontinue production from a property or parts thereof, decisions about the marketing of products extracted from the property and decisions to advance exploration efforts and conduct development of non-producing properties. The interests of third-party owners and operators and those of Empress (and Empress) on the relevant properties may not always be aligned. As an example, it will usually be in the interest of a royalty and stream holder to advance development and production on properties as rapidly as possible in order to maximize near-term cash flow, while third-party owners and operators may take a more cautious approach to development as they are at risk on the cost of development and operations. Likewise, it may be in the interest of property owners to invest in the development of and emphasize production from projects or areas of a project that are not subject to royalty, stream or other interests. The inability of Empress to control the operations for the properties in respect of which it has a royalty, stream or other interest may result in a material adverse effect on its profitability, results of operations and financial condition and the trading price of its securities. In addition, the owners or operators may take action contrary to Empress' policies or objectives, be unable or unwilling to fulfill their obligations under their contracts, have difficulty obtaining or be unable to obtain the financing necessary to advance projects or experience financial, operational or other difficulties, including insolvency, which could limit the owner or operator's ability to perform its obligations under arrangements with Empress (and Empress).

At any time, any of the operators of the properties in respect of which Empress holds a royalty, stream or other interest or their successors may decide to suspend or discontinue operations. Empress may not be entitled to any material compensation if any of the properties in respect of which it holds a royalty or other interest shuts down or discontinues their operations on a temporary or permanent basis.

The Pinos Royalty, the Manica Royalty, the Sierra Antapite Stream and the Tahuehueto Stream are material to Empress. Other assets and properties may become significant to Empress from time to time and any adverse development related to any such assets will affect the revenue derived from such assets.

As new assets are acquired or move into production, the materiality of each of Empress' assets will be reconsidered. Any adverse development affecting the development or operation of, production from or recoverability of Mineral Reserves from the properties which are subject to the Pinos Royalty, the Manica Royalty, the Sierra Antapite Stream, and the Tahuehueto Stream or any other significant property in the asset portfolio from time to time, such as, but not limited to, unusual and unexpected geologic formations, seismic activity, rock bursts, cave-ins, pit wall failures, tailings dam failures, flooding and other conditions involved in the drilling and removal of material, any of which could result in damage to, or destruction of, mines and other producing facilities, damage to life or property, environmental damage, adverse legal decisions, permitting delays, or the inability to hire suitable personnel and engineering contractors or secure supply agreements on commercially suitable terms, may have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities. Any adverse decision made by the owners and operators, including for example, alterations to development or mine plans or production schedules, may impact the timing and amount of revenue that Empress receives and may have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Sale of assets in respect of which Empress holds an interest may result in a new operator and any failure of such operator to perform could affect the revenues of Empress

The owners or operators of any projects or mines in respect of which Empress holds an interest may from time to time undertake transactions, including the sale or transfer of the projects or mines or of the operator itself, over which Empress will have little or no control. If such transactions are completed it may result in a new operator controlling the project or mine, who may or may not operate the project or mine in a similar manner to the current operator, which may positively or negatively impact Empress. If any such transaction is announced, there is no certainty that such transaction will be completed, or completed as announced, and any consequences of such non-completion on Empress may be difficult or impossible to predict.

Empress holds royalties in, or may acquire royalties or other interests in, mineral properties that are speculative and there can be no guarantee that mineable deposits will be discovered, developed or mined

Exploration for metals and minerals is a speculative venture necessarily involving substantial risk. There is no certainty that the expenditures made by the operator of any given project will result in discoveries of commercial quantities of minerals on lands where Empress holds royalties, streams or other interests.

If mineable deposits are discovered, substantial expenditures are required to establish Mineral Reserves through drilling, to develop processes to extract the resources and, in the case of new properties, to develop the extraction and processing facilities and infrastructure at any site chosen for extraction. Although substantial benefits may be derived from the discovery of a major deposit, no assurance can be given that resources will be discovered in sufficient quantities to justify commercial operations or that the funding required for development can be obtained on terms acceptable to the operator or at all. Although, in respect of these properties, Empress intends to hold only royalties, streams or other interests and not be responsible for these expenditures, the operator may not be in a financial position to obtain the necessary funding to advance the project, thereby resulting in the Company not earning revenues from the royalty and/or stream interest it holds in such properties.

Royalty holders have limited access to data and disclosure regarding the operation of properties, in respect of which it holds interests, which limit the ability to assess and predict the performance of royalties, streams or other interests

As a holder of royalties, streams and other interests, Empress will generally have limited access to data on the operations or to the actual properties themselves. Accordingly, Empress must rely on the accuracy and timeliness of the public disclosure and other information it receives from the owners and operators of the properties in respect of which it holds royalties, streams and other interests. Empress will use such information, including production estimates, in its analyses, forecasts and assessments relating to its own business. If such information contains material inaccuracies or omissions, Empress' ability to assess and accurately forecast performance or achieve its stated objectives may be materially impaired. In addition, some royalties, streams or other interests may be subject to confidentiality arrangements which govern the disclosure of information with regard to the royalties, streams or other interests and, as such, Empress may not be in a position to publicly disclose such information with respect to certain royalties, streams or other interests. The limited access to data and disclosure regarding the operations of the properties in respect of which Empress holds, or will hold, an interest may restrict its ability to enhance its performance which may result in a material adverse effect on its profitability, results of operations and financial condition and the trading price of its securities.

Empress relies, and Empress will rely, on the public disclosure and other information regarding the properties in which it has an interest that it receives from the owners, operators and independent experts of such operations, and certain of such information is included in this AIF. Such information is necessarily imprecise because it depends upon the judgment of the individuals who operate the properties, as well as those who review and assess the geological and engineering information. In addition, Empress must rely on the accuracy and timeliness of the public disclosure and other information it receives from the owners and operators of the properties, and uses such information in its analyses, forecasts and assessments relating to its own business and to prepare its disclosure with respect to its streams and royalties. If the information provided by such third parties to Empress contains material inaccuracies or omissions, Empress' disclosure may be inaccurate and its ability to accurately forecast or achieve its stated objectives may be materially impaired, which may have a material adverse effect on Empress.

Although Empress attempts (and Empress will attempt) to secure contractual rights when it creates new royalty, stream or other interests, such as audit or access rights, that will permit it to monitor operators'

compliance with their obligations, there can be no assurance that such rights will always be sufficient to ensure such compliance or to affect operations in ways that would be beneficial to Empress.

Empress will depend on its operators for the calculation of certain payments, and it may not be possible to detect errors in payment calculations

Payments and deliveries to Empress, and Empress for royalties, streams and other interests are calculated by the operators of the relevant properties based on reported production. Each operator's calculations are subject to and dependent upon the adequacy and accuracy of its production and accounting functions, and errors may occur from time to time in the calculations made by an operator. Certain contracts for royalties, streams or other interests require the operators to provide production and operating information that may, depending on the completeness and accuracy of such information, enable the detection of errors in such calculations. Empress does not, and Empress may not, however, have the contractual right to receive production information for all of its royalties, streams and other interests. As a result, Empress' ability to detect payment errors in respect of royalties, streams or other interests through its monitoring program of its interests and its associated internal controls and procedures is limited, and the possibility exists that Empress will need to make retroactive revenue adjustments in respect of royalties, streams or other interests. Some of Empress' contracts for royalties, streams and other interests provide the right to audit the operational calculations and production data for the associated payments and deliveries in respect of such royalties, streams and other interests; however, such audits may occur at some point following Empress' recognition of the revenue in respect of the royalties, streams or other interests and may require Empress' to adjust its revenue in later periods.

Empress is, and Empress will be, dependent on the payment or delivery by the owners and operators of the properties in respect of which it has a royalty or other interest, and any delay in or failure of such payments will affect the revenues generated by the asset portfolio

Empress is, and Empress will be, dependent to a large extent upon the financial viability of owners and operators of the relevant properties in respect of which it holds royalties and/or streams. Payments and deliveries from production generally flow through the operator and there is a risk of delay and additional expense in receiving such payments or deliveries. Payments and deliveries may be delayed by restrictions imposed by lenders, delays in the sale or delivery of products, the ability or willingness of smelters and refiners to process mine products, delays in the connection of wells to a gathering system, blowouts or other accidents, recovery by the operators of expenses incurred in the operation of the properties, the establishment by the operators of reserves for such expenses or the insolvency of the operator. Empress' rights to payment or delivery for royalties, streams and other interests must, in some cases, be enforced by contract without the protection of the ability to liquidate a property. This inhibits the ability to collect outstanding payments or deliveries in respect of such royalties, streams or other interests upon a default. Additionally, some contracts may provide limited recourse in particular circumstances which may further inhibit the ability to recover or obtain equitable relief in the event of a default under such contracts. In the event of a bankruptcy of an operator or owner, it is possible that an operator may claim that Empress should be treated as an unsecured creditor and, therefore, have a limited prospect for full recovery of revenue; there is also a possibility that a creditor or the owner or operator may claim that the royalty contract should be terminated in the insolvency proceeding. Alternatively, in order to preserve its interest in a royalty or other interest in the context of an insolvency

or similar proceeding, Empress may be required to make additional investments in, or provide funding to, owners or operators, which would increase its exposure to the relevant interest and counterparty risk. Failure to receive payments or deliveries from the owners and operators of the relevant properties or termination of Empress' rights may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Royalties, streams and other interests may not be honoured by operators of a project

Royalties, streams and other interests in respect of natural resource properties are largely contractual in nature. Parties to contracts do not always honour contractual terms and contracts themselves may be subject to interpretation or technical defects. To the extent grantors of royalties, streams and other interests do not abide by their contractual obligations, Empress will be forced to take legal action to enforce its contractual rights. Such legal action may be time consuming and costly and there is no guarantee of success. Any pending proceedings or actions or any decisions determined adversely to Empress, may have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Not all of the Company's royalties and streams are secured and the Company's security interests, if any, may be subordinated and difficult to enforce

Although certain of the Company's royalties and streams are secured, certain of the Company's royalty and stream interests are unsecured. In a default, liquidation or realization situation, any unsecured royalty and stream interests of the Company will be satisfied pro rata with all other unsecured claims after all secured claims, property claims and prior ranking claims are satisfied in full. Absent a security interest, the Company's likely potential recourse against a defaulting property owner or mining operator would be for breach of the applicable contract which would result in damages and unsecured claims for which the likelihood of recovery is remote and time-consuming. In the event that a mining operator or property owner has insufficient funds to pay its liabilities and obligations as they become due, it is possible that other liabilities and obligations will be satisfied prior to those owing to the Company. Even valid security interests which are or may be held by the Company could be (i) subordinated to other indebtedness; (ii) unenforceable; (iii) difficult to enforce; or (iv) subject to attack by other creditors or stakeholders. Further, in insolvency proceedings, any security or other interest held by the Company will likely be further subordinated by court-ordered charges or other court-ordered relief, including for interim financing.

Empress is, and Empress will be, exposed to foreign exchange risk

Certain of Empress' activities and offices are located in Canada and the costs associated with these activities are largely denominated in Canadian dollars. However, Empress' royalties, streams and other interests are denominated in United States and dollars and, as a result, are subject to foreign currency fluctuations and inflationary pressures, which may have a material adverse effect on Empress' profitability, results of operations and financial condition. There can be no assurance that the steps taken by management to address variations in foreign exchange rates will eliminate all adverse effects and Empress may suffer losses due to adverse foreign currency rate fluctuations.

Operators of mines may not be able to replace depleted Mineral Reserves and Mineral Resources, which would reduce revenue from royalties, streams and other interests

Any revenue generated from Empress' royalties and streams will principally be based on the exploitation of Mineral Reserves on assets underlying its royalties, streams or other interests. Mineral Reserves are continually being depleted through extraction and the long-term viability of Empress' asset portfolio depends on the replacement of Mineral Reserves through new producing assets and increases in Mineral Reserves on existing producing assets. As a mine matures, it can expect overall declines in production over the years unless operators are able to replace Mineral Reserves that are mined through mine expansion or successful new exploration. Exploration for minerals is a speculative venture necessarily involving substantial risk. There is no certainty that the expenditures made by the operator of any given project will result in discoveries of commercial quantities of minerals on properties underlying the asset portfolio or that discoveries will be located on properties covered by the relevant royalty or other interest. Even in those cases where a significant mineral deposit is identified and covered by the royalty or other interest, there is no guarantee that the deposit can be economically extracted. Substantial expenditures are required to establish Mineral Reserves through drilling, to develop processes to extract the resources and, in the case of new properties, to develop the extraction and processing facilities and infrastructure at any site chosen for extraction. Although substantial benefits may be derived from the discovery of a major deposit covered by the royalty or other interest, no assurance can be given that new Mineral Reserves will be identified to replace or increase the amount of Mineral Reserves currently in the asset portfolio. This includes Mineral Resources, as the resources that have been discovered have not been subjected to sufficient analysis to justify commercial operations or the allocation of funds required for development. The inability by operators to add additional Mineral Reserves or to replace existing Mineral Reserves through either the development of existing Mineral Resources or the acquisition of new mineral producing assets, in each case covered by a royalty or other interest, may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Empress may fail to acquire additional interests or select appropriate acquisitions

As part of Empress' business strategy, it expects to seek to purchase royalties, streams or other interests from third party natural resource companies and others. In pursuit of such opportunities, Empress may fail to select appropriate acquisition candidates or negotiate acceptable agreements, including arrangements to finance the acquisitions or integrate the acquired businesses or their personnel into Empress. There can be no assurance that Empress will complete any acquisition or business arrangement that it pursues on favourable terms or at all, or that any acquisitions or business arrangements completed will ultimately benefit Empress.

Increased competition for royalties, streams and other interests could adversely affect Empress' ability to acquire additional royalties, streams and other interests in mineral properties

Many companies are engaged in the search for and the acquisition of mineral interests, including royalties, streams and other interests, and there is a limited supply of desirable mineral interests. The mineral exploration and mining businesses are competitive in all phases. Many companies are engaged in the acquisition of mineral interests, including large, established companies with substantial financial resources, operational capabilities and long earnings records. Empress may be at a competitive

disadvantage in creating or acquiring those interests, whether by way of royalty or other form of investment, as competitors may have greater financial resources and technical staffs. There can be no assurance that Empress will be able to compete successfully against other companies in creating or acquiring new royalties, streams or other interests. In addition, Empress may be unable to acquire royalties, streams or other interests at acceptable valuations which may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

There can be no assurance that Empress will be able to obtain adequate financing in the future or that the terms of such financing will be favourable

There can be no assurance that Empress will be able to obtain adequate financing in the future or that the terms of such financing will be favourable. Failure to obtain such additional financing could impede Empress' could result in delay or postponement of further business activities which may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Empress may experience difficulty attracting and retaining qualified management and technical personnel to efficiently operate its business

Empress is dependent upon the continued availability and commitment of its key management personnel, whose contributions to immediate and future operations of Empress are of significant importance. The loss of any such key management personnel could negatively affect business operations. From time to time, Empress may also need to identify and retain additional skilled management and specialized technical personnel to efficiently operate its business. In addition, Empress frequently retains third party specialized technical personnel to assess and execute on opportunities. These individuals may have conflicts of interest or scheduling conflicts, which may delay or inhibit Empress' ability to employ such individuals' expertise. The number of persons skilled in the acquisition, exploration and development of royalties, streams and interests in natural resource properties is limited and competition for such persons is intense. Recruiting and retaining qualified personnel is critical to Empress' success and there can be no assurance that Empress will be able to recruit and retain such personnel. If Empress is not successful in recruiting and retaining qualified personnel, Empress' ability to execute its business model and growth strategy could be affected, which could have a material adverse impact on its profitability, results of operations and financial condition and the trading price of its securities.

Certain of Empress' proposed directors serve in similar positions with other public companies, which could put them in a conflict position from time to time

Certain of the directors and officers of Empress also serve as directors or officers of, or have significant shareholdings in, other companies involved in natural resource exploration, development and production and, to the extent that such other companies may engage in transactions or participate in the same ventures in which Empress participates, or in transactions or ventures in which Empress may seek to participate, the directors and officers of Empress may have a conflict of interest in negotiating and concluding terms respecting the extent of such participation. Such conflicts of the directors and

officers may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Risks Related to Mining Operations that May Affect Empress

Empress is indirectly exposed to many of the same risk factors as the owners and operators of properties in respect of which it holds a royalty or other interest

To the extent that they relate to the production of minerals from, or the continued operation of, the properties in respect of which Empress holds a royalty or interest, Empress will be subject to the risk factors applicable to the owners and operators of such mines or projects.

Production at mines and projects in respect of which Empress holds royalty or other interests is dependent on operators' employees

Production from the properties in respect of which Empress holds an interest depends on the efforts of operators' employees. There is competition for geologists and persons with mining expertise. The ability of the owners and operators of such properties to hire and retain geologists and persons with mining expertise is key to those operations. Further, relations with employees may be affected by changes in the scheme of labour relations that may be introduced by the relevant governmental authorities in the jurisdictions in which those operations are conducted. Changes in such legislation or otherwise in the relationships of the owners and operators of such properties with their employees may result in strikes, lockouts or other work stoppages, any of which could have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities. If these factors cause the owners and operators of such properties to decide to cease production at one or more of the properties, such decision could have a material adverse effect on the business and financial condition of Empress.

Mineral Reserves and Mineral Resources are estimates based on interpretation and assumptions and actual production may differ from amounts identified in such estimates

The Mineral Reserves and Mineral Resources on properties underlying royalties, streams or other interests are estimates only, and no assurance can be given that the estimated Mineral Reserves and Mineral Resources are accurate or that the indicated level of minerals will be produced. Mineral Reserve and Mineral Resource estimates are prepared by the operators of the properties underlying the applicable royalty or other interest. Empress does not, and Empress will not, participate in the preparation or verification of such estimates (or the reports in which they are presented) and Empress has not independently assessed or verified the accuracy of such estimates. Such estimates are, in large part, based on interpretations of geological data obtained from drill holes and other sampling techniques. Actual mineralization or formations may be different from those predicted. Further, it may take many years from the initial phase of drilling before production is possible and during that time the economic feasibility of exploiting a discovery may change.

Market price fluctuations of the applicable commodity, as well as increased production and capital costs or reduced recovery rates, may render Mineral Reserves on properties underlying royalties, streams or other interests unprofitable to develop at a particular site or sites for periods of time or may render

Mineral Reserves containing relatively lower grade mineralization uneconomic. Moreover, short-term operating factors relating to Mineral Reserves, such as the need for the orderly development of ore bodies or the processing of new or different ore grades, may cause Mineral Reserves to be reduced or not extracted. Estimated Mineral Reserves may have to be recalculated based on actual production experience. The economic viability of a mineral deposit may also be impacted by other attributes of a particular deposit, such as size, grade and proximity to infrastructure, governmental regulations and policy relating to price, taxes, royalties, streams , land tenure, land use permitting, the import and export of minerals and environmental protection and by political and economic stability. While these risks will exist for all of Empress' assets, they are heightened in the case of interests in properties which are not yet at production.

Mineral Resource estimates in particular must be considered with caution. Mineral Resource estimates for properties that have not commenced production are based, in many instances, on limited and widely spaced drill hole or other limited information, which is not necessarily indicative of the conditions between and around drill holes. Such Mineral Resource estimates may require revision as more drilling or other exploration information becomes available or as actual production experience is gained. Further, Mineral Resources may not have demonstrated economic viability and may never be extracted by the operator of a property. It should not be assumed that any part or all of the Mineral Resources on properties underlying Empress' royalties, streams or other interests constitute or will be converted into Mineral Reserves.

Any of the foregoing factors may require operators to reduce their Mineral Reserves and Mineral Resources, which may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Production forecasts may not prove to be accurate

Empress prepares, and Empress expects to prepare, estimates and forecasts of future attributable production from the properties in respect of which it holds royalties, streams and other interests and relies on public disclosure and other information it receives from the owners, operators and independent experts of such properties to prepare such estimates. Such information is necessarily imprecise because it depends upon the judgment of the individuals who operate such properties as well as those who review and assess the geological and engineering information. These production estimates and forecasts are based on existing mine plans and other assumptions with respect to such properties which change from time to time, and over which Empress has, and Empress will have, no control, including the availability, accessibility, sufficiency and quality of ore, the costs of production, the operators' ability to sustain and increase production levels, the sufficiency of infrastructure, the performance of personnel and equipment, the availability of materials and equipment including reagents and fuel, the ability to maintain and obtain mining interests and permits and compliance with existing and future laws and regulations. Any such information is forward-looking and no assurance can be given that such production estimates and forecasts will be achieved. Actual attributable production may vary from Empress' estimates for a variety of reasons, including: actual ore mined varying from estimates of grade, tonnage, dilution and metallurgical and other characteristics; actual ore mined being less amenable than expected to mining or treatment; lower than expected mill feed grades; lower than anticipated pillar recovery; short-term operating factors relating to the Mineral Reserves, such as the need for sequential development of orebodies and the processing of new or different ore grades; delays

in the commencement of production and ramp up at new mines; revisions to mine plans; unusual or unexpected orebody formations; risks and hazards associated with the properties in respect of which Empress holds royalties, streams and other interests, including but not limited to cave-ins, rock falls, rock bursts, pit wall failures, seismic activity, weather related complications, fires or flooding or as a result of other operational problems such as production drilling or material removal challenges, power failures or a failure of a key production component such as a hoist, an autoclave, a filter press or a grinding mill; and unexpected labour shortages, strikes, local community opposition or blockades. Occurrences of this nature and other accidents, adverse conditions or operational problems in future years may result in Empress' failure to realize the benefits of its production forecasts anticipated from time to time. If Empress' production forecasts prove to be incorrect, it may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

The exploration and development of Mineral Resource properties is inherently risky and subject to factors that are beyond the control of a royalty interest holder

Companies engaged in mining activities are subject to all of the hazards and risks inherent in exploring for and developing natural resource projects. These risks and uncertainties include, but are not limited to, environmental hazards, industrial accidents, labour disputes, increases in the cost of labour, social unrest, changes in the regulatory environment, permitting and title risks, impact of non-compliance with laws and regulations, fires, explosions, blowouts, cratering, encountering unusual or unexpected geological formations or other geological or grade problems, unanticipated metallurgical characteristics or less than expected mineral recovery, encountering unanticipated ground or water conditions, cave-ins, pit wall failures, flooding, rock bursts, tailings dam failures, periodic interruptions due to inclement or hazardous weather conditions, earthquakes, seismic activity, other natural disasters or unfavorable operating conditions and losses. Should any of these risks or hazards affect exploration or development activities over which Empress holds a royalty or other interest, it may (i) result in an environmental release or environmental pollution and liability to the operator; (ii) cause the cost of development or production to increase to a point where it would no longer be economic to produce the metal from the Mineral Resources or expected Mineral Reserves of the underlying properties, (iii) result in a write down or write-off of the carrying value of one or more mineral projects, (iv) cause delays or stoppage of mining or processing, (v) result in the destruction of properties, processing facilities or third-party facilities necessary for operations, (vi) cause personal injury or death and related legal liability, (vii) result in regulatory fines and penalties or the revocation or suspension of licenses; (viii) result in the loss of insurance coverage or (ix) result in the loss of social license to operate. The occurrence of any of above-mentioned risks or hazards could result in an interruption or suspension of operation of the properties underlying Empress' royalty or other interests.

Defects in title to properties underlying Empress' royalty or other interests may result in a loss of entitlement by the operator and a loss of Empress' interest

A defect in the chain of title to any of the properties underlying one of Empress' royalties, streams or other interests or necessary for the anticipated development or operation of a particular project to which a royalty, stream or other interest relates may arise to defeat or impair the claim of the operator to a property which could in turn result in a loss of Empress' interest in respect of that property. In addition, claims by third parties or aboriginal groups in Canada and elsewhere may impact on the

operator's ability to conduct activities on a property to the detriment of Empress' royalties, streams or other interests. To the extent an owner or operator does not have title to the property, it may be required to cease operations or transfer operational control to another party. Many royalties, streams or other interests are contractual, rather than an interest in land, with the risk that an assignment or bankruptcy or insolvency proceedings by an owner will result in the loss of any effective royalty or other interest in a particular property. Further, even in those jurisdictions where there is a right to record or register royalties, streams or other interests held by Empress in land registries or mining recorders offices, such registrations may not necessarily provide any protection to Empress. As a result, known title defects, as well as unforeseen and unknown title defects may impact operations at a project in respect of which Empress has a royalty or other interest.

Future litigation affecting the properties in respect of which Empress holds a royalty, stream or other interests could have an adverse effect on Empress

Potential litigation may arise on a property on which Empress holds a royalty or other interest (for example, litigation between joint venture partners or between operators and original property owners or neighbouring property owners). As a holder of such interests, Empress will not generally have any influence on the litigation and will not generally have access to data. Any such litigation that results in the cessation or reduction of production from a property (whether temporary or permanent) or the expropriation or loss of rights to a property could have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Moreover, the courts in some of the jurisdictions in which the Company has a royalty may offer less certainty as to the judicial outcome of legal proceedings or a more protracted judicial process than is the case in more established economies. Accordingly, there can be no assurance that contracts, joint ventures, licences, licence applications or other legal arrangements will not be adversely affected by the actions of government authorities and the effectiveness of and enforcement of such arrangements in these jurisdictions. Moreover, the commitment of local businesses, government officials and agencies and the judicial system in these jurisdictions to abide by legal requirements and negotiated agreements may be more uncertain and may be susceptible to revision or cancellation, and legal redress may be uncertain or delayed.

Defects or disputes relating to Empress' royalties, streams or other interests could have an adverse effect on Empress

Defects in or disputes relating to the royalty, stream or other interests Empress holds or acquires may prevent it from realizing the anticipated benefits from these interests. Material changes could also occur that may adversely affect management's estimate of the carrying value of Empress' royalty, stream and other interests and could result in impairment charges. While Empress seeks, and Empress will seek to confirm the existence, validity, enforceability, terms and geographic extent of the royalty and other interests it acquires, there can be no assurance that disputes or other problems concerning these and other matters or other problems will not arise. Confirming these matters is complex and is subject to the application of the laws of each jurisdiction to the particular circumstances of each parcel of mineral property and to the documents reflecting the royalty or other interest. The discovery of any defects in, or any disputes in respect of, Empress' royalty and other interests, could have a material adverse effect

on Empress' profitability, results of operations and financial condition and the trading price of its securities.

The operations in respect of which Empress may hold a royalty or other interest require various property rights, permits and licenses to be held by the operator in order to conduct current and future operations, and delays or a failure to obtain or maintain such property rights, permits and licenses, or a failure to comply with the terms of any of such property rights, permits and licenses could result in interruption or closure of operations or exploration on the properties

Exploration, development and operation of mining properties are subject to laws and regulations governing health and worker safety, employment standards, environmental matters, mine development, project development, mineral production, permitting and maintenance of title, exports, taxes, labour standards, reclamation obligations, heritage, historic and archaeological matters and other matters. The owners and operators of the properties in respect of which Empress holds, or will hold, a royalty or other interest require licenses and permits from various governmental authorities in order to conduct their operations. Future changes in such laws and regulations or in such licenses and permits could have a material adverse impact on the revenue. Such licenses and permits are subject to change in various circumstances and are required to be kept in good standing through a variety of means, including cash payments and satisfaction of conditions of issue. Such licenses and permits are subject to expiration, relinquishment and/or termination without notice to, control of or recourse by Empress. There can be no guarantee that the owners or operators of those properties in respect of which Empress holds or will hold a royalty or other interest, will be able to obtain or maintain all necessary licenses and permits in good standing that may be required to explore, develop and operate the properties, commence construction or operation of mining facilities, or maintain operations that economically justify the cost. Any failure to comply with applicable laws and regulations, permits and licenses, or to maintain permits and licenses in good standing, even if inadvertent, could result in interruption or closure of exploration, development or mining operations or in fines, penalties or other liabilities accruing to the owner or operator of the project. Any such occurrence could substantially decrease production or cause the termination of operations on the property and have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

The Company will be exposed to risks related to the construction, development and/or expansion in relation to the mines, projects and properties in respect of which it holds a royalty or stream

Many of the projects or properties in respect of which the Company holds an interest are in the construction or development stage, and such projects are subject to numerous risks, including, but not limited to delays in obtaining equipment, materials and services essential to the construction and development of such projects in a timely manner, currency exchange rates, labour shortages, cost escalations and fluctuations in metal prices. There can be no assurance that the owners or operators of such projects will have the financial, technical and operational resources to complete construction, development and/or expansion of such projects in accordance with current expectations or at all.

The operations on the properties underlying royalty or other interests are subject to environmental and endangered species laws and regulations that may increase the costs of doing business and may restrict operations, which could reduce Empress' revenues

All phases of the mining business present environmental risks and hazards and are subject to environmental regulation pursuant to a variety of government laws and regulations, including laws and regulations relating to the protection of endangered and threatened species. Compliance with such laws and regulations can require significant expenditures and a breach may result in the imposition of fines and penalties, which may be material. In addition, such laws and regulations can constrain or prohibit the exploration and development of new projects or the development or expansion of existing projects. Environmental legislation is evolving in a manner expected to result in stricter standards and enforcement, increases in land use restrictions, larger fines and liability and potentially increased capital expenditures and operating costs. Any breach of environmental legislation by owners or operators of properties underlying Empress' asset portfolio could have a material impact on the viability of the relevant property and impair the revenue derived from the owned property or applicable royalty or other interest, which could have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Additional costs may be incurred by mineral property operators as a result of international climate change initiatives and may affect the availability of resources and cause business disruptions, which could reduce Empress' revenues

Empress acknowledges climate change as an international and community concern. Empress supports and endorses various initiatives for voluntary actions consistent with international initiatives on climate change.

In addition to voluntary actions, governments are moving to introduce climate change legislation and treaties at the international, national, state/provincial and local levels. Where legislation already exists, regulation relating to emission levels and energy efficiency is becoming more stringent. Some of the costs associated with reducing emissions can be offset by increased energy efficiency and technological innovation. However, if the current regulatory trend continues, Empress expects this may result in increased costs at some of the properties underlying its royalties, streams or other interests, which could have a material impact on the viability of the properties and impair the revenue derived from the applicable royalty or other interest, which could have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Certain operators are subject to risks relating to foreign jurisdictions and developing economies, which could negatively impact Empress

Certain of Empress' royalty or other interests relate to properties outside of Canada, including Mexico, Peru and Mozambique. In addition, future investments may expose Empress to new jurisdictions. The ownership, development and operation of properties, mines and projects in foreign jurisdictions by their owners are subject to the risks normally associated with conducting business in foreign jurisdictions. These risks include, depending on the country, nationalization and expropriation, social unrest and political instability, less developed legal and regulatory systems, uncertainties in perfecting mineral titles, trade barriers, exchange controls and material changes in taxation. These risks may, among other things, limit or disrupt the ownership, development or operation of properties, mines or projects in respect of which Empress holds, or will hold, royalty or other interests, restrict the movement of funds, or result in the deprivation of contractual rights or the taking of property by nationalization or expropriation without fair compensation. If any of these events were to occur, this may result in a write

down or write-off of the carrying value of one or more of Empress' assets, which could have a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities. In addition, in the event of a dispute arising from foreign operations, Empress may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdiction of courts in Canada. Empress applies, and Empress will apply, various methods, where practicable, to identify, assess and, where possible, mitigate these risks prior to entering into contracts for royalty or other interests. Such methods generally include: conducting due diligence on the political, social, legal and regulatory systems and on the ownership, title and regulatory compliance of the properties subject to the royalty or other interest, engaging experienced local counsel and other advisors in the applicable jurisdiction; negotiating where possible so that the applicable contract contains appropriate protections, representations, warranties and, in each case as Empress deems necessary or appropriate in the circumstances, all applied on a risk-adjusted basis. There can be no assurance, however, that Empress will be able to identify or mitigate all risks relating to holding royalties, streams and other interests in respect of properties, mines and projects located in foreign jurisdictions, and the occurrence of any of the factors and uncertainties described above could have a material adverse effect on Empress' profitability, results of operation and financial condition and the trading price of its securities.

Changes in government regulation could inhibit exploration, construction and development on, or production from, the mineral properties underlying royalties or other interests

The properties on which Empress holds, and Empress will hold, a royalty or other interest are and may in future be located in multiple legal jurisdictions and political systems. There can be no assurance that future political and economic conditions in such countries will not result in the adoption of different policies or attitudes respecting the development and ownership of resources. Changes in applicable laws, regulations, or in their enforcement or regulatory interpretation could result in adverse changes to mineral development or operations. Any such changes in policy or attitudes may result in changes in laws affecting ownership of assets, land tenure and resource concessions, licensing fees, taxation, royalties, price controls, exchange rates, export controls, environmental protection, labour relations, foreign investment, nationalization, expropriation, repatriation of income and return of capital, which may affect both the ability to undertake exploration, construction and development on, or production from, the properties in respect of which Empress holds a royalty or other interest or the payments under such royalties or other interests. In certain areas where Empress' royalty interests are currently located, and in areas whether Empress may hold a royalty or other interest, the regulatory environment is in a state of continuing change, and new laws, regulations and requirements may be retroactive in their effect and implementation. Any changes in governmental laws, regulations, economic conditions or shifts in political attitudes or stability are beyond the control of a royalty holder and the owners and operators of the underlying properties and such changes may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Adequate infrastructure may not be available to develop properties underlying a royalty or other interest which could inhibit operations at such properties

Mining, processing, development and exploration activities depend, to one degree or another, on adequate infrastructure. Reliable roads, bridges, power sources and water supply are important determinants, which affect capital and operating costs. Unusual or infrequent weather phenomena,

sabotage, government or other interference in the maintenance or provision of such infrastructure could adversely affect or inhibit the operations at the properties in respect of which Empress holds a royalty or other interest, which may result in a material adverse effect on Empress' profitability, results of operations and financial condition and the trading price of its securities.

Mineral properties underlying royalty or other interests may be subject to risks related to indigenous peoples which could inhibit operations at such properties

Various international, national, state and provincial laws, codes, resolutions, conventions, guidelines, treaties and other principles and considerations relate to the rights of indigenous peoples. Empress holds, and Empress will hold, royalties and other interests in respect of operations located in some areas presently or previously inhabited or used by indigenous peoples. Many of these impose obligations on government to respect the rights of indigenous people. Some mandate consultation with indigenous people regarding actions which may affect indigenous people, including actions to approve or grant mining rights or permits. The obligations of government and private parties under the various international and national requirements, principles and considerations pertaining to indigenous people continue to evolve and be defined. The properties in respect of which Empress currently holds or Empress in the future may hold an interest are subject to the risk that one or more groups of indigenous people may oppose operation or new development. Such opposition may be directed through legal or administrative proceedings or protests, roadblocks or other forms of public expression against the operator's activities. Opposition by indigenous people to such activities may require modification of or preclude operation or development of projects or may require the entering into of agreements with indigenous people. Claims and protests of indigenous peoples may disrupt or delay activities of the operators of assets in respect of which Empress holds a royalty or other interest which may result in a material adverse effect on Empress profitability, results of operations and financial condition and the trading price of its securities.

Section 4.3 Material Investments

The Company's material investments at the date of this AIF are the *Pinos Royalty, the Manica Royalty, the Sierra Antapite Stream, and the Tahuehueto Stream.*

Pinos Project

The information presented in this AIF about the Pinos Project has been extracted or derived from the Pinos Technical Report, which was filed by Candelaria with the British Columbia, Alberta and Ontario Securities Commissions and which is available under Candelaria's profile at wwww.sedar.com.

Section 9.2(1) of NI 43-101 states that an issuer whose interest in a mineral project is only a royalty or similar interest is not required to file a technical report to support disclosure in a document under subsection 4.2 of NI 43-101 (which includes an annual information form): (1) if (a) the operator or owner of the mineral project is (i) a reporting issuer in a jurisdiction of Canada, or (ii) a producing issuer whose securities trade on a specified exchange and that discloses mineral resources and mineral reserves under an acceptable foreign code; and (b) the issuer identifies in its document under subsection 4.2 (1) the source of the scientific and technical information; and (c) the operator or owner of the mineral project

has disclosed the scientific and technical information that is material to the issuer. This exemption is available to Empress in respect of the information derived from the Pinos Technical Report.

The information contained in this AIF derived from the Pinos Technical Report is subject to certain assumptions, qualifications and procedures described therein. Reference should be made to the full text of the Pinos Technical Report. The Pinos Technical Report is not and shall not be deemed to be incorporated by reference into this AIF. The Pinos Technical Report, and consequently the disclosure below, is prepared as of a certain point in time and Empress is not in a position to determine whether any information with respect to those properties that may be material subsequent to the date of the applicable Pinos Technical Report exists. Therefore, in addition to the Pinos Technical Report, readers should review public disclosures available on SEDAR made by Candelaria, which is available under its issuer profile on SEDAR at www.sedar.com.

No qualified person has verified the data disclosed in the Pinos Technical Report on Empress' behalf, including sampling, analytical, and test data underlying the information or opinions contained in the Pinos Technical Report. As Empress is not the operator of the Pinos Project, it does not have access to the data underlying the Pinos Technical Report and it is unable to perform such verification.

Terms and abbreviations used in the following summaries that are not otherwise defined therein shall have the meaning(s) ascribed thereto in the Pinos Technical Report. Figures or charts referred to the Pinos Technical Report but not reproduced herein may be viewed in the Pinos Technical Report. Table references are to tables in the Pinos Technical Report, certain of which are reproduced in this AIF. The Pinos Technical Report should be read in the context of qualifying statements, procedures and accompanying discussion with the complete Pinos Technical Report and the summaries below are qualified in their entirety by same.

(1) Property Description, Location and Access

The Pinos Project is in the central part of the Mexican Republic, at the Municipality of Pinos in the southeastern portion of Zacatecas State. It is at 80 km west of the City of San Luis Potosí and 140 km east of Zacatecas State Capital.

The Pinos Project is accessed from San Luis Potosí via Federal Highway 49 (Zacatecas-San Luis Potosí) for 74.6 Km, then taking a deviation to the south on State Highway 144 (Zacatecas-Pinos- La Trinidad) to the City of Pinos for 26.3 Km. Both highways are paved and in good condition.

Alternatively, the project can be accessed from the City of Zacatecas by taking Federal Highway 49 (Zacatecas-San Luis Potosí / México) for 115 Km, then deviate to the south through State Highway 144 (Zacatecas-Pinos-La Trinidad) for 26.3 Km.

Accordingly, to INEGI (Instituto Nacional de Estadística y Geografía), the climate in Pinos is Semidry Temperate, code 32-043, with average annual rainfall from 300 – 350 mm and average annual temperature of 16.2° C. The Town of Pinos is located at an altitude of 2,408 meters above sea level.

Pinos Project belongs to the Physiographic Province of the Mesa Central, within the Subprovince of Llanuras y Sierras Potosinas – Zacatecanas. The topography in the project area is gentle with shallow

creeks generally cutting south and southwest–sloping terrain with elevations ranging from 2,360 to 2,900 meters above sea level. Highlands in the north and northeast are steep-sided.

Vegetation is mainly composed of xerophyte shrubs growing in a poor planosol soil.

The planned processing plant, project offices, labs, and warehouses lie about 2 Km west of the Town of Pinos which population of about 7,000 inhabitants.

The Town of Pinos has lodging and is a source of skilled and unskilled labor and basic supplies. Electric power and water are readily available in Pinos. It has gas stations, telephone, internet, bank facilities and it has regular bus service to nearby large cities as well. The nearest airport is in San Luis Potosí. Non-basic supplies can be easily sourced from the cities of San Luis Potosí and Zacatecas. Zacatecas State is well known for its availability of people highly skilled in mining and drilling.

Figure1:1:Location Map

(2) Property Ownership

The Pinos Project consists of 29 mining concessions for exploration, mining, and production, totaling 3,816.2735 hectares.

These concessions are held by Minera Apolo S.A. de C.V. ("**Minera Apolo**" or "**Apolo**") and its subsidiary Minera Catanava. The Pinos Project mining concessions are owned jointly by Minera Apolo, and Candelaria, through its Mexican subsidiary Grupo Minero.

Candelaria, S.A.P.I., owns 100% of Apolo and has a direct interest in buying additional adjacent mining concessions.

All mining concessions are in good standing, and they are not subject to any unusual or onerous conditions, and their existence or validity will not be affected by any change of control. Minera Apolo, is the owner of 85.49 hectares of surface land. This land is sufficient for engineering and construction

requirements; including, the dynamic leaching mill, tailings pond, warehouses, offices, and mining infrastructures.

A Mexican ejido is a land-owning cooperative with a defined number of associates (ejidatarios). The Ciudad Pinos Ejido controls surface rights in the northern and western parts of Candelaria's Pinos Project. Minera Apolo through its subsidiary 100% owned subsidiary Minera Catanava, S.A. de C.V., has an agreement with Ciudad de Pinos Ejido, which allows the company a right-of-way on established roads on ejido lands and exclusive use of a right-of-way for access to the project's plant and offices in the western part of the project.

The surface-use agreement is valid for the life of the project and may not be changed because of a change of the ejido's leadership. Minera Apolo must pay royalties in the amount of 1% of the Net Smelter Return from production from the mining concessions to Donald Frazier McLeroy Felkins, María Guadalupe Chiw Castillo, and Kathleen McLeroy Chiw and decedents, on a quarterly basis.

There are no known significant factors or risks that may affect access, title, or the right or ability to perform work on the project. The project has no known environmental liabilities.

(3) History

Historical information for the Pinos Gold District is compiled from Bosquejo Histórico de Zacatecas, page 308, published in 1892 (http://cdigital.dgb.uanl.mx/la/1080046493/1080046493 44.pdf); Hoffman, 1923; García G.P. 1923; Muller, 1930; and Aleman, et al., 1977.

Historical mining production figures given here are "**estimates,**" Jose Antonio Olmedo, Eng. Geol. MsC, (Independent, QP) ("**JAO**") has not done sufficient work to verify production data such as grade, tonnage, recovery, and costs from past mine operators on Pinos property.

Gold and silver were initially discovered at Pinos by Spanish conquistadors in 1556. Since 1650 there have been several mines and small plants in operation, and it is reported that at that time the mines produced 131,358 oz Au Eq.

From that time until mid-1800's production was continuous; but, on a relatively small scale. Around 1860, most of the district had been acquired by British interests (Candelaria Mining, not the issuer of this report). A boom period lasted from about 1870 to 1910, during which all the superb shafts (52 in total, still in good conditions) were sunk, and most production took place. They sank more than 50 shafts and developed more than 40 km of level workings. Bonanza-grade gold and silver were discovered in 1871, leading to the construction of small-scale ore roasters and doré production. Most of the shafts stopped at water table (90 to 120 m); however, Cornish pumps driven by steam power using imported coal were installed in richest places such as the San Ramón and General shafts, where workings reportedly extend to about 290 meters. Recovery was by grinding and amalgamation, and many of the old stopes were back-filled with waste and tailings.

With the advent of Mexican Revolution in 1910, mining activities ceased mainly due to the lack of supplies and workers. Minor exploitation and metallurgical testing were carried out in the 1920's. In

1930, Asturiana Gold Company worked La Asturiana vein within the district, with an estimated production shown below in Fig. 6.1.

In 1932, the Compañía Minera Zacatecana installed a 150 TPD (tonnes per day) cyanide plant at the Cinco Estrellas Mine site, treating ore from that mine upgraded by extremely rich, hand selected ore from pillars, and ore shoots from throughout the district. This operation ceased in 1942 because of the death of the owner and the lack of supplies and explosives availability during the World War II years.

(4) Exploration and Drilling History

Modern exploration work began in 1975 with a joint venture between Bethlehem Steel and Industrias Peñoles. These companies performed an exploration program coordinated and directed by Minera Apolo and reported by McLeroy and others (1981). The joint venture focused its work on the old San Luis, Cinco Estrellas, Griego, and Peñitas mines of the Cinco Estrellas trend, and on the La Paz and Tiro Cuatro mines of the La Paz trend.

The joint venture conducted an 8-hole (1,281.15 m) diamond drilling campaign between November 1980 to June 1981. Drilling concentrated on the Cinco Estrellas, San Rafael, Purísima, and La Paz zones. The core was not available for review at the time of the author's visits, and no information from these drill holes has been considered by Candelaria for its mineral resource estimations.

In 1983, Minera Apolo, the Mexican company managing the Bethlehem/Peñoles joint venture, acquired all the Pinos joint venture claims. Sporadic work was carried out between 1983 and 1996, including vein sampling by C. Aspinall in 1993, and exploration of the San Gil vein by All North Resources in 1994.

In 1996, Hecla Mining Corporation explored the Pinos district. Hecla focused on the altered contact of the rhyolite/trachyte dome complex to the east and north of the known vein systems, looking for a Carlin Type of mineralization and drilled 27 reverse circulation holes on targets such as the apparent lithocap south of San Ramón, El Africano and some other areas susceptible for disseminated mineralization. Romarco Minerals Inc. optioned the Pinos ground in 2006. Romarco's work concentrated on the northern part of the Cinco Estrellas vein zone, from Tanous to San Luis; with, an 8-hole diamond drilling program and extensive underground sampling on the Tanous and San Miguelito shafts. Romarco intersected vein mineralization in seven of the eight drill holes.

The highest precious-metal values intersected in drilling include 6.05 m at 5.16 g/t gold and 19.0 g/t silver. Highest values from underground sampling were 7.2 g/t gold and 142 g/t silver at the Tanous shaft and 6.94 g/t gold and 43 g/t silver at San Miguelito. From these, information from only one drill hole was used in Candelaria's resource estimation; which is, R-DDH-05A-07 (physical core is at Candelaria's drill core warehouse in Pinos).

Romarco also conducted detailed geologic mapping of the western part of the Pinos district, using the Hunter Surveying maps and orthophotos as a base.

In 2010, Excalibur Resources and Minera Apolo entered into an exploration/mining joint venture agreement forming Minera Catanava, S.A. de C.V., to work on a 143-hectare portion of the northwestern part of the Apolo concession block in September 2010. In addition to the exploration/development

work, Catanava constructed a processing plant. The joint venture agreement between Excalibur and Apolo was terminated on 12 January 2015, leaving Apolo with 100% ownership of the entire concession block. Branco Resources began in May 2014 with a compilation of maps, sections, reports provided by Minera Apolo and review of work done by Bethlehem Steel and Peñoles. Branco did confirmation sampling and metallurgical tests performing a Scoping Study focused on the Cinco Estrellas trend defining four mineralized zones; namely, Peñitas, Griego, Cinco Estrellas-San Miguel, and Natividad-Mina 25 veins. Among main conclusions from Branco's scoping report is that the Pinos Project from an exploration perspective is that nearly all of the exploration has been concentrated in a very small area only on the Cinco Estrellas vein itself. The La Paz vein, Azul vein, San Ramón vein, Candelaria vein, Asturiana vein, San Miguel del Oro vein, El Africano vein, and others are nearly unexplored other than limited sampling in small old workings and one drill hole or nothing for which we have little data. Their combined strike length is more than 23 kilometers.

Notes from Donald McLeroy include that from a sampling of old workings at the El Africano vein said that the vein is at least eight meters wide at Africano creek and carried 5 to 6 grams gold. It is also intriguing that All North Resources and McLeroy (verbal communication) mentions "strongly silicified areas bordering the Pinos dome with gold anomalies, it could be generating a larger gold dissemination target for future."

In 2015, Stephen Maynard, Qualified Person, collected six rock samples from underground locations on the Cinco Estrellas trend, and two samples of dump material; one of each from the San Ramón and Candelaria mine dumps; his results verified the previous sampling.

During the second half of 2015 and first quarter of 2016 and underground sampling and mapping program was undertaken by Candelaria, to provide a detailed of vein understanding of vein geometry and to confirm gold and silver values from previous sampling and historical mining.

This program was focused on the Cinco Estrellas Mineralized Trend; including the mining works known as San Miguel, San Francisco, San Luis, Griego, Peñitas, Natividad and Mina 25. About one thousand systematic (one meter), rock-chip channel samples were collected from a vein, hanging-wall and foot-wall structures. Each sample was a minimum of 12 Kg to restrict "nugget effect" on geochemical analysis. It also included a bulk sampling on Candelaria waste dump. Satisfactory results obtained, allowed Candelaria to execute an extensive diamond core drilling campaign. From May to September 2016, Candelaria performed 33 core diamond drill holes at the three areas of Cinco Estrellas Mineralized trend known as San Francisco, San Carlos de Arandas and San José de Peñitas with a total of 4,729.50 meters, executed by Energold Drilling.

(5) Quality Assurance and Quality Control

Candelaria underground and drill core sampling included a strict program of Quality Assurance and Quality Control (QA/QC), consisting of blind submission of rig duplicates, standards for gold and silver, and blanks for gold and silver. The results of the QA/QC analysis present reasonable confirmation of the reproducibility of assay results with no indication of bias in the analysis of either gold and silver or significant contamination problems at the laboratory. ALS Global geochemistry laboratory was used to obtain a certified analysis.

(6) Mineral Resource Estimate

Mineral Resource modeling and estimation were prepared by JAO and Candelaria's Héctor González using appropriate software, such as Target of Geosoft®, Statgraphics (Version 18) and Autocad 3-D.

JAO reviewed the information of Candelaria's database obtained from the Candelaria's Exploration Program 2015-2017, which was used for this mineral resource estimation and validation of technical procedures; including, QA/QC, 2-D sections, statistical and geostatistical, analysis, 3-D Modeling, and grade and tonnage estimations concluding that these procedures meet best practice standards in mineral resource estimation under CIM Definition Standards for Mineral Resources and Mineral Reserves, 2014.

For geostatistical vein modeling and due to different structural dominions, the Cinco Estrellas Mineralized trend was divided into four major areas, namely: San José Peñitas, San Carlos Arandas, San Francisco and Natividad.

Classification of mineral resources was performed based on modeled blocks above a cut-off grade of AuEq of 2.2 g/t, accordingly to the following minimum requirements:

(a) Measured Resources. Model blocks with AuEq grades were estimated by wells of 1.5 m x 1.5 m x total depth excavated by a backhoe in mineral dumps within an average distance of 12 m.

(b) Indicated Resources. Model blocks with AuEq grades estimated by a minimum of three drill holes or channel samples located within a maximum distance of 45 m.

(c) Inferred Resources. Model blocks which do not meet the criteria for measured or indicated resources; but and are within a maximum distance of 80 m from a single drill hole.

Table 1.1 Summary of Candelaria's Mineral Resource Estimation

A. Underground Mineral Resources							
Resource Class	Cutoff Grade (g Au/t)	Mine Dilution (%)	Area	Tonnes Above Cutoff	Gold Grade (g Au/t)	Silver Grade (g Au/t)	True Vein Width (m)
Indicated	2.2	10	San Jose de Penitas	98,448	3.0	51.3	1.34
			San Francisco	52,177	5.0	43.3	1.77
			San Carlos de Arrandas	19,174	2.6	29.0	2.1
			Natividad	5,897	5.8	78.5	1.08
Total Indicated	2.2	10	ALL	175,697	3.6	47.4	1.5
Resource Class	Cutoff Grade (g Au/t)	Mine Dilution (%)	Area	Tonnes Above Cutoff	Gold Grade (g Au/t)	Silver Grade (g Au/t)	True Vein Width (m)
Inferred	2.2	10	San Jose de Penitas	328,770	3.0	51.3	1.34
			San Francisco	145,480	5.0	43.3	1.77
			San Carlos de Arrandas	45,539	2.6	29.0	2.1
			Natividad	9,479	5.8	78.5	1.08
Total Inferred	2.2	10	ALL	529,267	3.6	47.7	1.5

Source: JOA (2018)

A. Other Mineral Resources							
Resource Class	Cutoff Grade (g Au/t)	Mine Dilution (%)	Area	Tonnes Above Cutoff	Gold Grade (g Au/t)	Silver Grade (g Au/t)	True Vein Width (m)
Measured			Candelaria Dump	85,847	1.6	82.9	0
Total Measured			ALL	85,847	1.6	82.9	0

Source: JOA (2018)

(7) Candelaria Exploration, Mining Development, and Processing Program

In January 2018, Candelaria completed an extensive program to start developing its mining concessions in Pinos; this program includes, mining development, mining extraction, diamond core drilling exploration, and mineral processing. The objective is to commence mining production at Cinco Estrellas Vein, generating short-term profits, allowing Candelaria to develop the potential of the entire property through further exploration to scale this project into a major mining district.

A total of 13,450 meters of mining development and 9,645 meters of stopes preparation are projected in this mining program along the Cinco Estrellas Mineralized Trend. These mining workings will provide mineral production of 200 tpd for the first year of operation, 300 tpd for the second and third years and 400 tpd from the fourth year on. Selected mining method is cut and fill using waste rock fill.

Candelaria's proposed direct mining development and preparation, consisting in ramps, drifts and raises along vein structures, is in the author's opinion, the best suitable way to better evaluate this narrow vein system of Bonanza type of ore shoots; underground development gives more certainty in confirming the continuity of mineralization, changes in dip and dip direction, local faulting and displacements, veining intersections and large variations in grade and thicknesses of mineralized structures.

An initial 7,000 meters of diamond core drilling campaign is planned to start by 3rd month of LOM's preproduction year 0, followed by a second campaign of sustaining diamond core drilling of 5,900 meters planned to start by the 1st quarter of LOM's 2nd year of operation to better define mineralization along mining development of the existing mineral resources and to possibly generate additional resources. Candelaria's Planned Drilling Program Cinco Estrellas' San Francisco Domain in Longitudinal Section.

As a result, from metallurgical testing performed on Pinos true representative samples, a dynamic leaching plant is proposed by Candelaria to process mineral, starting with 200 tpd in the first year, 300 tpd on 2nd year and 400 tpd from 4th year on, with expected recoveries of 90% for Au and 80% for Ag, through dynamic NaCN solution. Dynamic leaching process in simplistic terms consists in mineral milling, cyanide leaching and precipitation of the final product.

The remanufactured processing plant presently owned by Candelaria (CAND) consists of a crushing circuit, a mill(s) and classification circuit, and an agitated leach plant, countercurrent-decantation, and Merrill-Crowe precipitation. A tailings impoundment is located near the plant.

The tailings impoundment is a 100% owned property of Candelaria, and it is constructed just below the process plant site. The impoundment is double lined with the first liner made of a clay material that acts as a leak prevention system with the effective absorption and protection to the upper second liner. The

second liner is a welded 60 mil HDPE geomembrane, in accordance to geotechnical studies by GeoQuality Mexico and environmental requirements (NOM-141-SEMARNAT-2003). The method of subsequent embankment construction to obtain full capacity is up-stream, with a planned high of 14.92 m, including a final one meter free volume for protection of tailings pond during the maximum modeled 100-year storm event; also, the protection includes two derivation channels designed by flow model analysis.

The products from this dynamic leaching plant will be Au-Ag precipitates, all of which contain payable gold and silver.

(8) Environmental Studies and Permitting

Candelaria has done extensive work to fulfill all regulatory agency requirements to commence construction in order to ultimately put the Pinos Project into production: the following table summarizes actual status of each permit.

Table 1.2: Candelaria Permitting Status

Permit	Status	Date Expected	Authority	Comments
EIA (MIARegional)	Closed	Granted	Secretaría de Medio Ambiente y Recursos Naturales	Manifiesto de Impacto Ambiental
Environmental Risk Survey	Closed	Granted	Secretaría de Medio Ambiente y Recursos Naturales	Manifiesto de Impacto Ambiental
EIA (ETJ)	Closed	Granted	Secretaría de Medio Ambiente y Recursos Naturales	Use of forestall land
Explosives Storage	Closed	Granted	Secretaría de la Defensa Nacional	Renewal for 2018
Laboral	Closed	Granted	Secretaría del Trabajo y Previsión Social	Granted by PASST (Self-Management Program)
Laboral	Closed	Granted	Instituto Mexicano del Seguro Social	Social security of workers and medical care
Mexican Company	Closed	Granted	Secretaría de Relaciones Exteriores	Approval for constitution of companies and subsidiaries
Taxes	Closed	Granted	Secretaría de Hacienda y Crédito Público	Company registration, tax registration and rights
Mining Activities	Closed	Granted	Secretaría de Economía	Mine concessions, mining production and investment
Infrastructure	Closed	Granted	Secretaría de Infraestructura Zacatecas	Access for hydraulic pipeline and roads from Zacatecas paved road
Local taxes	Closed	Granted	Secretaría de Finanzas Zacatecas	Use of vehicles, payroll tax.
Power	Closed	Granted	Comisión Federal de Electricidad	New supply granted by CFE with modifications to Pinos project grid system from the power station.
Groundwater Use Allowance	Closed	Granted	Comisión Nacional del Agua	San Luis shaft
Groundwater Use Allowance	Pending	2017Q3-2018Q2	Comisión Nacional del Agua	El Oasis Ranch Aquifer (Aquifer capacity granted)
Additional Land	Pending	2018Q4	Registro Agrario Nacional	Land acquisition granted by Cd. Pinos Ejido and landowners.

Source: Candelaria Mining Corp. (2018)

As part of informative activities of Candelaria at the Pinos Project, personnel of the company informed the inhabitants of the Pinos community, including the Ciudad Pinos ejido, neighbors, municipal authorities, local and regional commerce owners and public, the advantages of the project to local economy; as, generation of

employment, social programs, environmental programs for protection of animals and plants, and principally, all the engineering procedures and normativity of a social and environmentally responsible industry.

(9) Project Economics

Capital and operating costs for the Pinos Project have been estimated primarily in detail by Candelaria management with actualized input from its most experienced Technical Services staff and compared with the author's knowledge of similar underground operations in Mexico. These costs are based on the design outlined in the exploration, mining development, mining preparation, ore extraction and processing presented along this report. Due to the detailed cost data provided by Candelaria, the author(s) considers these costs to have an accuracy of +/- 20%. All costs are expressed in US dollar at an exchange rate of 18.68 Mexican pesos per US dollar. No escalation factors have been applied to any costs, present or future capital. A total of $13.0 million is estimated to put Pinos Project in operation plus $0.5 million of working capital.

These capital and operating cost estimates are preliminary in nature, include 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, and, as such, there is no certainty that the capital and operating cost estimates will be realized.

Candelaria has not obtained a comprehensive feasibility study of established mineral reserves at the Pinos Project. Projects which are placed into production without first establishing mineral reserves supported by a technical report and completing a feasibility study have a much higher risk of economic or technical failure. If Candelaria makes a production decision for the Pinos Project which is not based on a feasibility study of mineral reserves demonstrating economic and technical viability, it faces increased uncertainty and technical and economic risks. Candelaria issued a news release on February 3, 2022 announcing that it had received its permit for an infill drill program at Pinos.

Manica Project

A technical report was prepared for the Company pursuant to NI 43-101 entitled "NI 43-101 Technical Report on the Fair Bride Gold Project, Mozambique") dated February 22, 2021 with an effective date of February 1, 2021 and authored by Mr. Uwe Engelmann, BSc (Zoo.& Bot.), BSc Hons (Geol.), Pr.Sci.Nat., MGSSA of Minxcon (Pty) Ltd. (the "**Fair Bride Technical Report**")

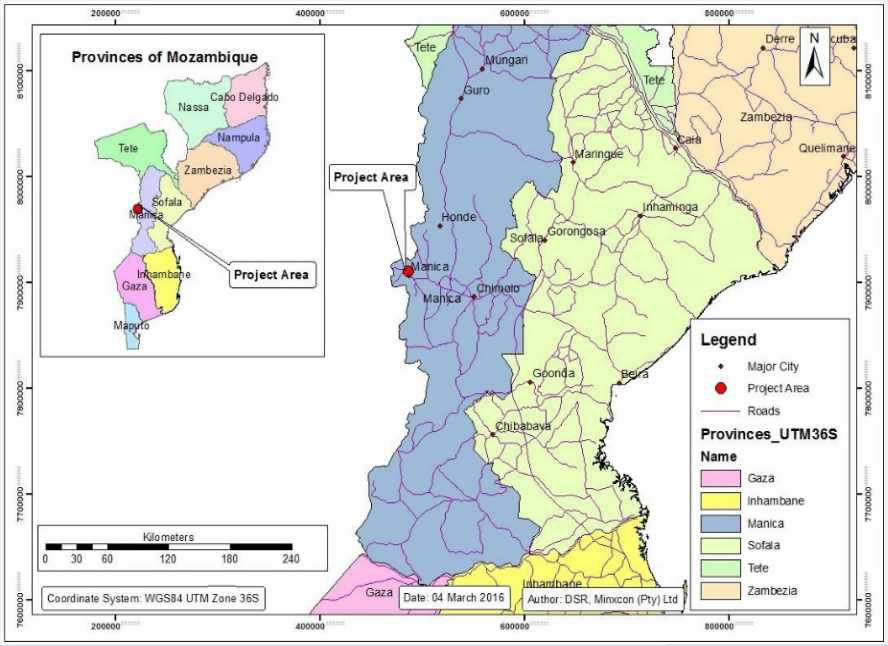
The information contained in this AIF derived from the Fair Bride Technical Report is subject to certain assumptions, qualifications and procedures described therein. Reference should be made to the full text of the Fair Bride Technical Report. The Fair Bride Technical Report is not and shall not be deemed to be incorporated by reference into this AIF. The Fair Bride Technical Report, and consequently the disclosure below, is prepared as of a certain point in time and Empress is not in a position to determine whether any information with respect to those properties that may be material subsequent to the date of the applicable Fair Bride Technical Report exists.

No qualified person has verified the data disclosed in the Fair Bride Technical Report on Empress' behalf, including sampling, analytical, and test data underlying the information or opinions contained in the Fair Bride Technical Report. As Empress is not the operator of the Fair Bride property, it does not have access to the data underlying the Fair Bride Technical Report and it is unable to perform such verification.

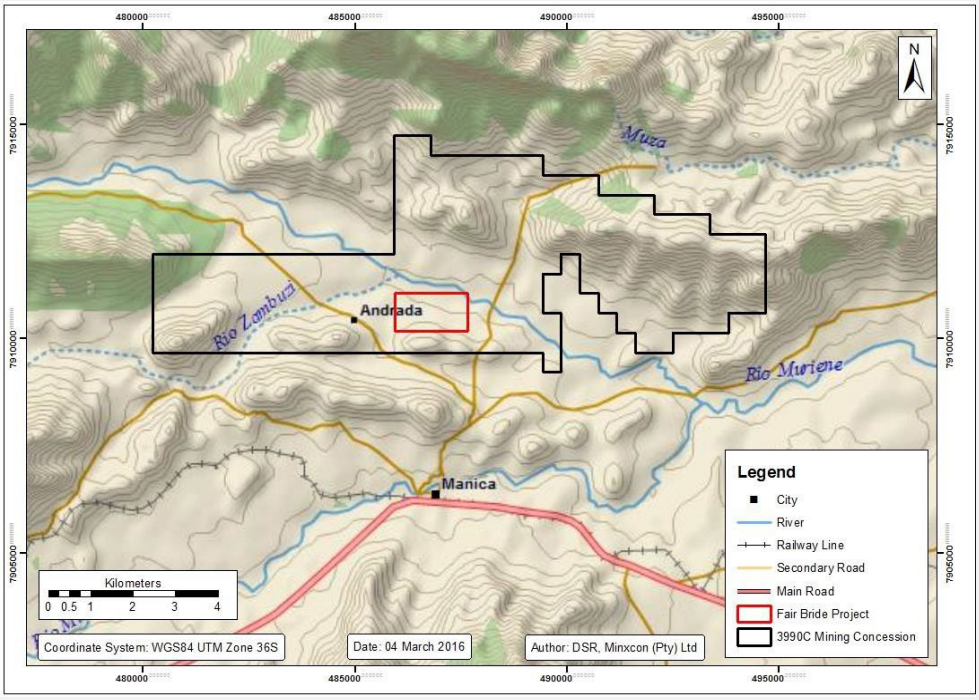
Terms and abbreviations used in the following summaries that are not otherwise defined therein shall have the meaning(s) ascribed thereto in the Fair Bride Technical Report. Figures or charts referred to the Fair Bride Technical Report but not reproduced herein may be viewed in the Fair Bride Technical Report. Table references are to tables in the Fair Bride Technical Report, certain of which are reproduced in this AIF. The Fair Bride Technical Report should be read in the context of qualifying statements, procedures and accompanying discussion with the complete Fair Bride Technical Report and the summaries below are qualified in their entirety by same.

(1) Property description, Location and Access

The Fair Bride prospect (the "**Manica Project**") is located in the western extremity of the Manica Province in Mozambique. The Manica Project is accessible by dirt road from Manica city. Manica can be reached by tar road from Johannesburg via Beitbridge, Mutare (approximately 1,239 km) or from Harare in Zimbabwe via Mutare (approximately 409 km). Air services link major regional centres of Johannesburg, Maputo, Harare and Chimoio (located 70 km from the Manica Project Area).



Regional Location of the Project Area | **February 2021**

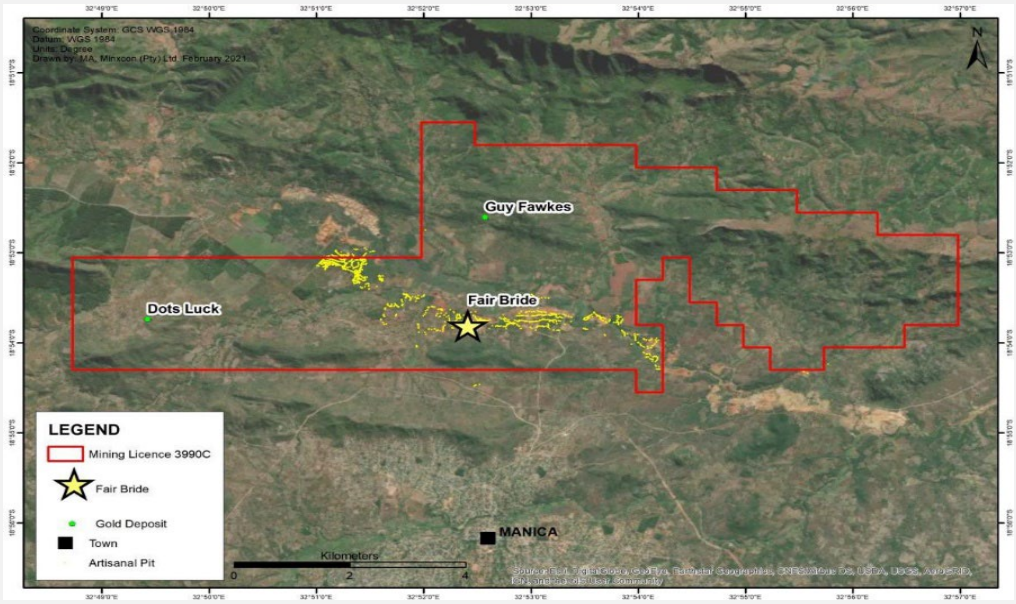


Location of the Fair Bride Project | **February 2021**

(2) Property Ownership

The Mining Law, No. 20/2014 of 18 August 2014 ("the **Mining Law**"), establishes the legal framework for mining activities in Mozambique. Licences are issued and regulated by the Ministry of Mineral Resources and Energy.

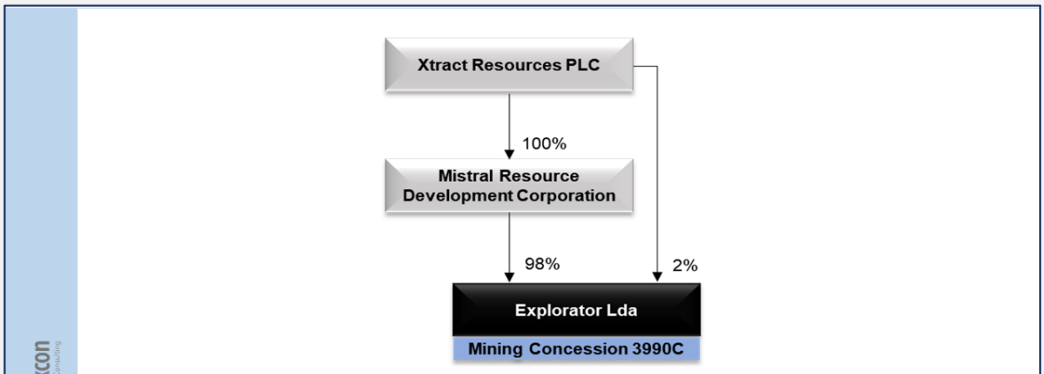
The Manica Project Area occurs within the boundaries of Mining Concession 3990C, which is held by Explorator, Lda ("**Explorator**") for gold and is valid to 3 March 2036. The licence area encompasses a total of 4,360 ha and the Fair Bride prospect covers approximately 1,530 ha of the concession. Explorator is authorised to use and improve the land surface.



Mining Concession 3990C | **February 2021**

Per Mozambique Constitution, no land is privately owned and all land ownership lies with the State. The right to use land can be granted through a *Direito do Uso e Aproveitamento da Terra* ("**DUAT**") process. The right to use and improve the land surface was authorised to the title holder (Explorator) in terms of the Land Regulation (Decree No. 66 of 1998) on 10 March 2020 until expiry of 3990C under reference number 239/MTA/DINAT-DCIT/411/2020.

The Mining Concession is held by Explorator, which in turn is a majority-held subsidiary of Mistral Resource Development Corporation (98%), with the balance held directly by Xtract Resources PLC. Mistral Resource Development Corporation is a wholly-owned subsidiary of Xtract Resources PLC. The company structure as it relates to the licence area is illustrated below. Empress has provided a portion of capital funding to the Manica Project via streaming and is not defined as a shareholder or lender.



Company Structure Relating to the Fair Bride Project | **February 2021**

To the knowledge of Minxcon, at the date of their report, there are currently no applicable royalties or payments associated with the Manica Project.

The potential environmental impacts of the future proposed mining project are detailed in the Impacto ESIA report and summarised in the below table. The items presented in *italics* have a significant negative impact if not mitigated. It is noted that these are not applicable to the Mineral Resources and current stage of the Manica Project.

Type	Potential Impact
Topography	• Injury to people and animals from hazardous excavations and infrastructure.
Soils and Land Capability	• Loss of soil resources from pollution. • Loss of soil resources from physical disturbance.
Biodiversity	• Physical destruction of terrestrial biodiversity from clearing land and placing infrastructure. • General disturbance of terrestrial biodiversity through a range of aspects including dust, noise, vibration, pollution, lighting, power lines, water dams, poaching, and vehicle movement. • General disturbance of aquatic ecosystems through construction and operation of infrastructure adjacent to watercourses and wetlands.
Surface Water	• Alteration of natural drainage patterns. • Pollution of surface water.
Groundwater	• Dewatering impacts on third party users • Groundwater contamination.
Air Quality	• Air pollution.
Noise	• Noise pollution.
Blasting	• Blast injury to third parties or damage to structures
Archaeology	• Damage to archaeological and heritage resources.
Visual Impacts	• Visual impact.
Traffic and Road Safety	• Increase in traffic and risk to other road users.
Socio-economic Impacts	• Inward migration of job seekers that may add stress to the current local and regional infrastructure and service deficiencies, lead to poor living conditions, increased crime and accelerated spread of disease. • Displacement of households and workers living and working within the proposed mine fence lines and blast buffer zones around the open pits. • Loss of current land use.

A payment of 0.2% of USD5 million (the quoted investment value for 3990C including Fair Bride, Dot's Luck and Guy Fawkes) was made for the issuing of the Environmental Licence in relation to future mining. In Mozambique, submission of the DUAT is a condition for the issuance of the Environmental Licence, which will only be required for development and mining operations. The Environmental Licence under reference number 11/2020 was issued to Explorator on 20 May 2020 and is valid until 20 May 2025.

A water use licence number 005/2016 was issued by the Ministry of Public Works and Housing to Explorator under licence number 005/2016 on 20 October 2016 and is valid until 20 October 2021 for the 3990C concession area. This licence allows for pumping of 135,000 m^3 per month of water from the Revue River. This licence is aimed at mine development and has no bearing on the Mineral Resources of the Manica Project.

Minxcon is not aware of any significant factors or risks prevalent to the Manica Project that may affect the Mineral Resources and potential operations.

(3) History

Manica is an historical gold mining area. Prehistoric mining and exploration activities started during the time of the Monomotapa Empire, after which it was continued by the Portuguese and other Europeans from the 1800s to about the 1970s.

Documented historical exploration activities on the Fair Bride prospect took place since 1964. The Brigada de Formento Mineiro ("**BFM**") first explored the area in 1964 where they conducted geological mapping of the Manica Project Area, followed by Lonrho in 1987, and then by Explorator.

Explorator was wholly owned by Pan African Resources Limited ("**PAR**") until 17 January 2012 when it was wholly purchased by Australian Listed Company Auroch Minerals NL ("**Auroch**"). Explorator was subsequently purchased by Xtract in 2015.

The following table summarizes prior ownership and ownership changes:

Company	Year
Unknown	1900 - 1950
Brigada de Formento Mineiro (BFM)	1964
Lonrho	1986
	1989
Pan African Resources PLC	2001 - 2013
Auroch Minerals NL	2013 - 2015
Xtract Resources PLC	2015 - Current

From 2001 to 2011, Pan African Resources ("**PAF**") conducted extensive exploration activities which included: detailed geological mapping of the project area, a magnetic field intensity ("**TMI**") survey and a gradient array induced polarisation ("**IP**") survey, drilling of 79 reverse circulation ("**RC**") drillholes and 100 diamond drillholes. Auroch Minerals subsequently drilled 9 RC drillholes and 11 diamond drillholes from 2013 to 2015, prior to the acquisition of the property by Xtract. Auroch also completed a definitive feasibility study ("**DFS**"). In 2017, Minxcon completed a definitive feasibility study (DFS) on the Manica Project.

The below table summarises historical exploration activities which were completed on the Fair Bride area. Further to these formally documented activities, a number of artisanal workings are active on the site along the alluvial system. It is unknown how far back their presence dates.

Historical Exploration Activities on Fair Bride

Company	Year	Mapping	Geochemistry	Geophysics	Sampling		RC Drilling		Diamond Drilling	
					Type	m	No. Drillholes	m	No. Drillholes	m
Unknown	1900 - 1950									
BFM	1964	Mapping								
Lonrho	1986				Pitting					
	1989				Pitting					
	2001	Mapping	Au							
	2002				10 Trenches	2,817	33	2,010		

PAF	2003		As	IP and TMI			6	474		
	2004						7	699	8	1,312
	2005			IP			12	1,149		
	2006	Detailed Mapping							7	1,004
	2007						3	164	60	10,699
	2008									
	2009						18	2,118	25	6,835
	2010									
	2011									
Auroch Minerals	2013 - 2015			VTEM and Airborne TMI			9	578	11	1,704
Total							**88**	**7,192**	**111**	**21,554**

Historical exploration included surface mapping, soil geochemical surveys, trenching and geophysical surveys. These all contributed to the target generation for the exploration drilling. This drilling included diamond drilling and reverse circulation (or RC) drilling. A total of 113 RC drillholes totaling 9,265.97 m were completed on the Fair Bride prospect. RC drillholes were drilled using a 120 mm bit using a face sampling hammer. 116 diamond drillholes, totalling 22,396.82 m, were completed on the Fair Bride prospect. All diamond drillholes drilled prior to 2013 were drilled using HQ sized bits (63.50 mm) within the weathered zone while the NQ sized bits (47.60 mm) were used to drill in more competent material (fresh rock). Those drillholes drilled in 2012 and 2013 were drilled using PQ (85 mm) sized bits before casing off to HQ sized bits. During the various drilling campaigns, quality assurance and quality control measures were implemented, resulting in a reliable database.

In 2014, Auroch geologist in collaboration with CSA Global declared Mineral Resource statement as indicated in Table 4. The grade variation between the two estimations is due to the estimation methodology. The 2010 Mineral Resource Estimation utilised ordinary kriging whereas the Auroch estimate utilised local uniform conditioning ("**LUC**") for the final estimation methodology. Mineral Resource classification was informed by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, or JORC, Code (2012) guidelines.

Fair Bride Mineral Resource as per Auroch, August 2014 at a Grade Cut-off of 1.0 g/t

Mineral Resource Category	Cut-off Grade	Tonnes	Au	
	g/t	kt	g/t	oz
Measured	1.0	2,893	3.14	291,600
Indicated	1.0	2,665	3.07	263,300
Subtotal Measured & Indicated	**1.0**	**5,557**	**3.11**	**554,900**
Inferred	1.0	3,988	2.87	368,300
Total	**1.0**	**9,546**	**3.01**	**923,200**

No historical Mineral Reserves have been declared by previous owners of the Project.

Mineral Reserves were estimated by Minxcon as part of the 2016 definitive feasibility study and were stated as at 27 February 2017, as shown in Table 5.

Table 5: Fair Bride Mineral Reserves as per Minxcon as at 27 February 2017 at a Grade Cut-off of 1.0 g/t

Mineral Reserve Category	Tonnes Delivered Mt	Delivered Grade g/t	Gold Content koz
Proven	2.90	2.63	245.2
Probable	0.31	2.44	24.3
Total Mineral Reserves	**3.21**	**2.62**	**269.5**

Notes:

1. Strategic Ore (Low Grade Material) is not included.
2. Gold Price of USD1,270/oz.
3. The Competent Person is Daan van Heerden, B.Eng.(Min.Eng), M.Comm.(Bus.Admin.), ECSA, MSAIMM, AMMSA.
4. Tonnes refer to tonnes delivered to the processing plant.

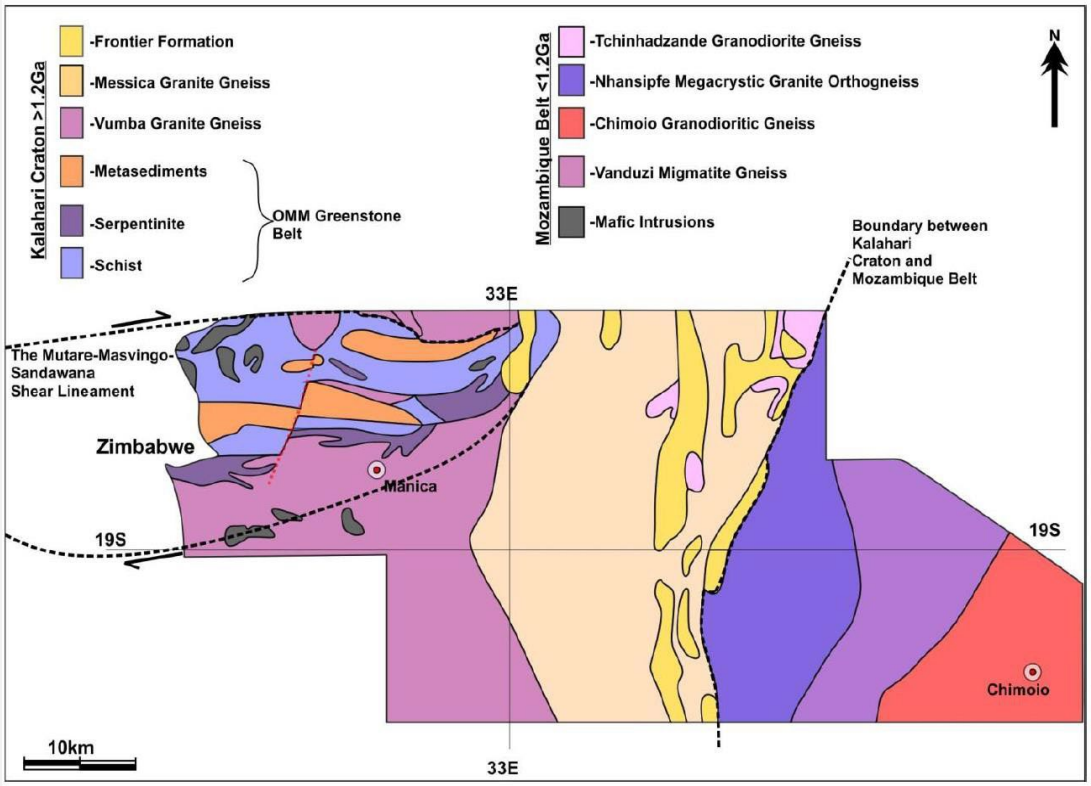
An estimated 6,400 oz of gold have been produced from the Andrade Shear BIF at Fair Bride in the south of the concession area by unknown workers in the period 1900 to 1950 at an average grade of 7.0 g/t (Northrop and Mitchell, 2010). Further details are unknown.

(4) Geological Setting and Mineralization

The Project Area is located within the 2.6-2.7 Ga OMM Greenstone Belt which occurs on the eastern side of the Zimbabwe Craton, and formed the northern portion of the larger Kalahari Craton. The Vumba Granite Gneiss, the OMM Greenstone Belt, the Messica Granite Gneiss, the Frontier Formation, the Tchinhadzandze Granodiorite Gneiss and mafic intrusives are the main lithological groups of the Kalahari Craton.

The OMM Greenstone Belt is predominately composed of a strong east-west trend and locally folded ultramafic/mafic volcanics and serpentinites alongside metasediments. Tonalite trondjhemite granodiorite (TTG) granite gneisses of the Vumba Granite Gneisses forms a boundary to the OMM Greenstone Belt to the north and south. The Messica Granite Gneisses truncate the eastern margin of OMM Greenstone Belt and are the predominant unit making up the Kalahari Craton in the area. The Messica Granite Gneisses become increasingly foliated towards this boundary (Manhica et. al., 2001) and are characterized by leucocratic granite composed of biotite, muscovite and garnet (Manhica et. al., 2001). Figure 10 below shows the regional geology.

Figure 10. Regional Geology



Source: Grieve, 2015

Regional Geology	**February 2021**

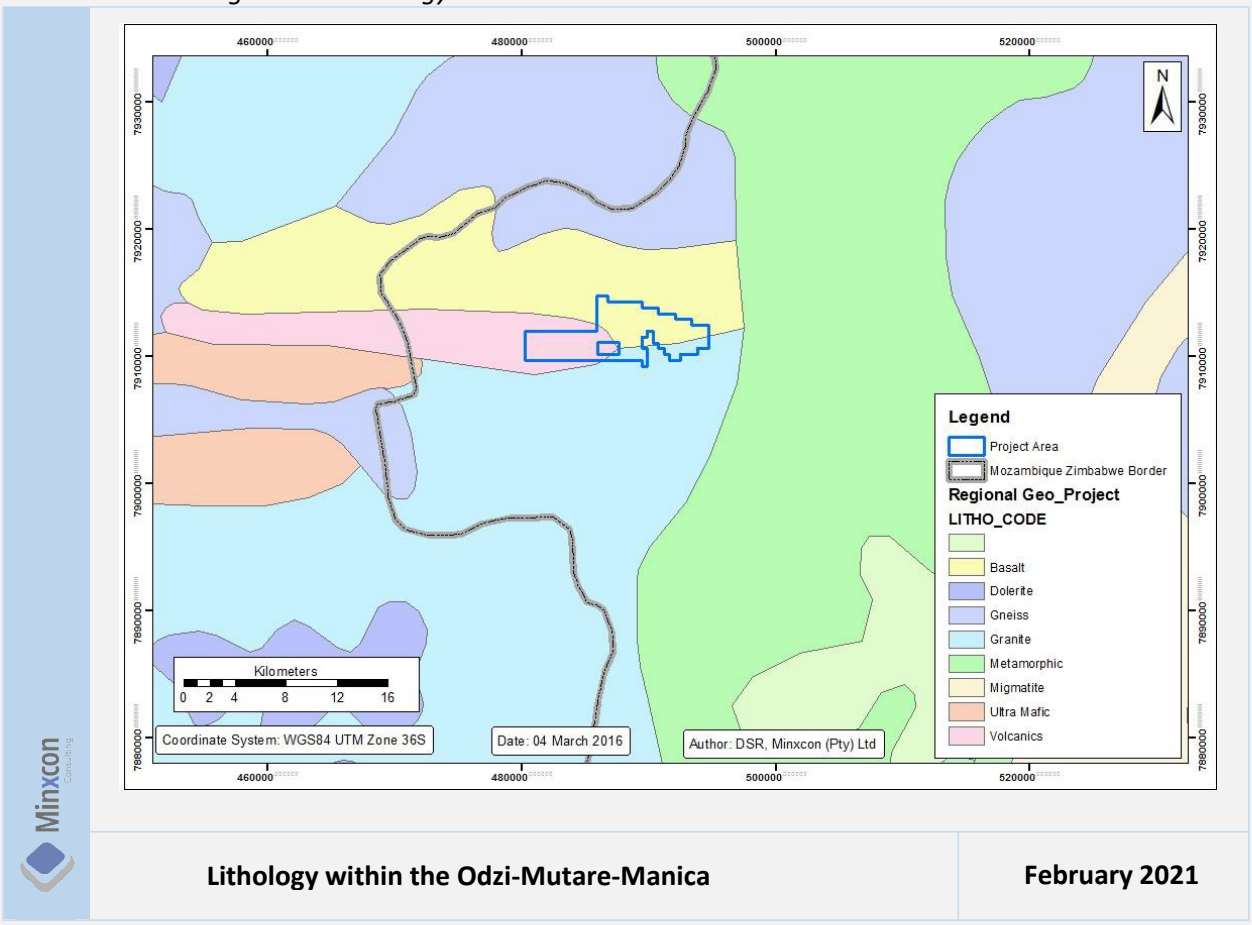
The Frontier Formation occurs as outliers within the Messica Granite Gneiss, found as tight north-south orientated synclines composed of quartzites and mica schists, a characteristically different trend to the dominant east-west trend of the OMM Greenstone Belt (Grieve, 2015). The OMM Greenstone Belt is underlain by one outlier of the Frontier Formation and this suggest that the outlier is tectonically emplaced under the overlying sequence. The east-west to east-northeast to west-southwest strike with a north-south dipping plane, is the dominant trend encountered within the OMM Greenstone Belt and Vumba Granite Gneisses. The trend becomes progressively east-northeast to west-southwest further eastwards until truncation against the Messica Granite Gneisses occurs. This is thought to suggest a sinistral sense of shear along the northern craton margin (Grieve, 2015). The undeformed or foliated Messica Granite Gneisses suggests the fabric developed in the OMM Greenstone Belt and that the Vumba Granite Gneisses preceded emplacement of the Messica Granite Gneiss. Beyond and including the western fraction of the Messica Granite Gneiss, the dominant trend in the Mozambique Metamorphic Belt and Frontier Formation becomes dominantly north- south (Manhica et. al., 2001). The contact where the Kalahari Craton terminates against the Mozambique Metamorphic Belt in the east is a result of the Grenville Orogeny that formed the first supercontinent, Rodinia (1,000-1,200 Ma). The Mozambique Metamorphic Belt is considered to have formed during the collision of the continents leading to an accretion of sediments onto the eastern margin of the Kalahari Craton (Grieve, 2015).

Gneisses, migmatites, granitoids with mafic, quartzite, marble and calc-silicate intercalations are the main constituent of the Mozambique Metamorphic Belt which is interpreted to have formed from a turbidite sequence. North-south orientated mafic dykes occur in both the Kalahari Craton and Mozambique Metamorphic Belt and are increasingly metamorphosed towards the craton boundary (Grieve, 2015).

The OMM Greenstone Belt extends 25 km eastwards into Mozambique and lies within the intact Zimbabwe craton. The eastern extension of the OMM Greenstone Belt is known as the Manica Greenstone Belt. The OMM Greenstone Belt extends approximately 115 km westwards, where the dominant trend is east- northeast, arcing into an east-west trend through the Manica area before swinging back east-northeast to west-southwest where it terminates against the Messica Granite Gneisses (Koll, 2014; Lord et. al., 2012; Manhica et. al., 2001). The change in strike of the greenstone belt is likely to be representative of shearing, evidence for which is found along the greenstone margins constrained by the Vumba Granite Gneisses (Manhica et. al., 2001). This regional shear is considered to be related to the crustal scale east-northeast to northeast trending Mutare-Masvingo-Sandawana ("**MMS**") Shear Zone (Stepcich and Naidoo, 2012).

The Macequece Formation (in which the Fair Bride orebody occurs) and Vengo Formations are the most important lithologies within the Manica area of the greenstone belt. The Macequece and Vengo Formations are known to correlate to the Upper Bulawayan and Shamvaian Supergroups in the Central Zimbabwe Craton. Ultramafic/mafic metavolcanics with intercalations of BIF, serpentinite and metachert are the main constituent of the lowermost Macequece Formation. These rocks have been significantly altered by the regional retrograde metamorphism becoming rich in talc, chlorite amphibole and tremolite. The Vengo Formation, which is interpreted to be a younger, shallow water sedimentary unit comprised of metamorphosed shales, dolomitic limestones, siliceous volcanics, and quartzites, lies unconformably over the Macequece Formation. The grade of metamorphism in the OMM Greenstone Belt ranges from lower amphibolite facies to lower greenschist facies in the east around Manica and has significantly altered these rocks. Figure 11 below shows different lithologies within the OMM Greenstone Belt.

Figure 11. :Lithology within the Odzi-Mutare-Manica Greenstone Belt



The OMM Greenstone Belt is a complex Archaean terrane that is largely classified as synformal. The synform consists of mafic to ultramafic volcanics (Macequece Formation) on the margins of the fold, with coarse clastic sediments (Vengo Formation) in the core of the fold (Grieve, 2015). There are three other east-west trending synforms that have been identified, plunging 20°to 25° to the east within the major synform. Tight isoclinal antiforms, in some places, have been truncated by thrust faults separated the synforms. Deformation is principally associated with the MMS strike slip shear zone that extends 500 km from Eastern Mozambique to Southern Zimbabwe (Grieve, 2015). Large (>10 km) regional east-northeast structures that vary in trend locally have been formed as a result of shearing.

Late post-kinematic north-northeast to north-south brittle-ductile faults that have displaced laterally trending units have cut and offset the east-west folded trend of the OMM Greenstone Belt. These faults are believed to have played an important role in the formation of the late diabase (ca. 1820 Ma) and dolerite dykes (ca. 800-570 Ma) which cut across both the OMM Greenstone Belt and the surrounding units (Grieve, 2015).

The Fair Bride deposit is an Archean Greenstone Belt Orogenic Gold deposit. The deposit occurs in the eastern part of the 2.6-2.7 Ga OMM Greenstone Belt and is hosted within the sedimentary units that have been metamorphosed to upper greenschist to lower amphibolite facies to form a metamorphosed

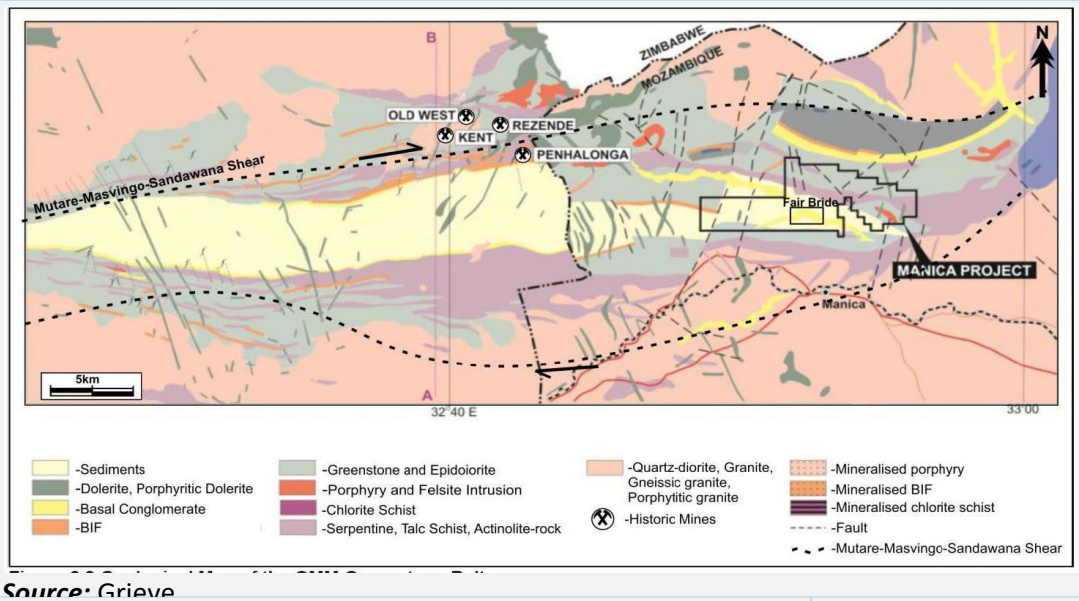
sequence of low-MgO ultramafic to mafic rocks. The orebody occurs along a shear zone which strikes east-west and is steeply dipping at approximately 75°. Mineralisation occurs in a retrograde multiply-deformed vein stock work within a surrounding alteration halo. The gold mineralisation is believed to be associated with syn- to post-kinematic arsenopyrite (up to 5%) within a silica + chlorite + albite + biotite + illite ± carbonate ± pyrite+ alteration halo. Within the licence area, alluvial gold deposits occur. This Report, however, only focuses on the hard rock gold mineralisation at Fair Bride.

Two adjacent regional shears which hosted the gold mineralisation within the Fair Bride Project Area are located on the margins of one of the OMM Greenstone Belt synforms. The Fair Bride Project is located on the southern flanks of the syncline and strikes east-west.

The Project Area is situated on the southern part of the 3990C Mining Concession alongside a 7 km extension of the BIF horizon on which the Rezende Mine is situated in Zimbabwe. The BIF horizon with a strike length of approximately 7 km extends from the old mine at Dot's Luck Project to the centre of Fair Bride. Gravels and alluvium covers most of the ground.

Historical and current exploration activities conducted on Fair Bride Project which includes surface geological mapping, geochemical and geophysical survey, RC and diamond drilling suggested that gold occurrence or mineralisation is closely associated with arsenopyrite and has been primarily intersected within the sedimentary units, BIF, greywackes and phyllites. Gold mineralisation is usually controlled by quartz sulphide veins which occurs as lenses along the shear zone. These lenses have been observed to be associated with structural jogs or inflections within the shear zone (ExplorMine, 2008). Figure 13 shows the project geology.

Figure 13: Project Geology



Source: Grieve

Project Geology	**February 2021**

Mineralisation is oxidised to a depth of about 50 m to 60 m below the surface. Minerals such as magnetite, hematite, limonite, hornblende, carbonate, sericite, albite and auriferous pyrite, arsenopyrite and pyrrhotite as well as native gold are the main constituent of the host rocks. The host rocks lithologies contain orebodies which vary in thickness from 2 m to 30 m, are sub-vertical and with strike lengths of several hundred metres.

Data obtained from geological surface mapping, trenching, RC drilling and diamond drilling were used to generate the 3D geological model of the Fair Bride prospect area.

A geological model of the Fair Bride mineralised body was constructed using the geological interpretation, supplied by Xtract in the form of geological sections (Figure 14). These sections were a result of sections created in Surpac (by the project geologist) which were then remodelled in Datamine Studio™ (by Minxcon and the Xtract geologists). The sections represent a geological interpretation based on the lithology, which was correlated by the onsite geologist using core drilling data.

The main mineralisation occurs within the rhyolite (brown crosses) and metasediments (purple dashed lines, Figure 14). These units were used for the geological model (Figure 15). This lithological/geological model was also tested against a grade shell halo by Minxcon (using Leapfrog Geo™ software) and a good correlation was found. The resultant geological wireframe model was reviewed by the resident Xtract geologist. Upon review, the geological wireframe model (Figure 16) was utilised as a physical constraint or orebody limit during Mineral Resource estimation. The wireframe surfaces for the base of oxide and top of the sulphide zones were created from the point data from the log files, where weathering was recorded and were utilised in defining these geological weathering limits in resultant Mineral Resource block model.

Figure 14: Xtract Section 486955 in 1:500 Scale used for the Geological Model Wireframe Supplied by Xtract (Looking East)

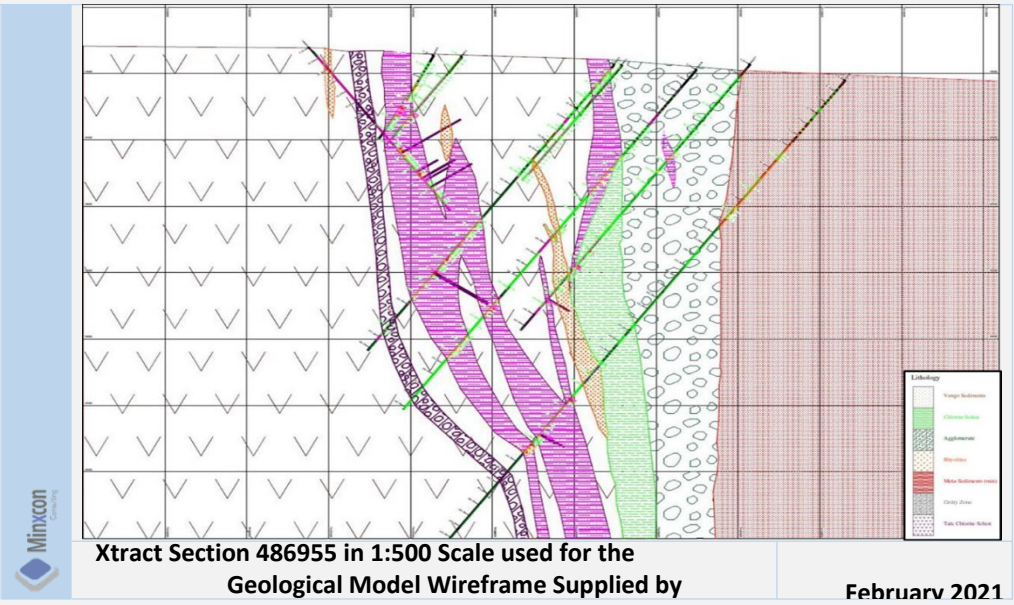


Figure 15: Xtract Section 486855 with Datamine Geological Model Wireframe (Looking East)

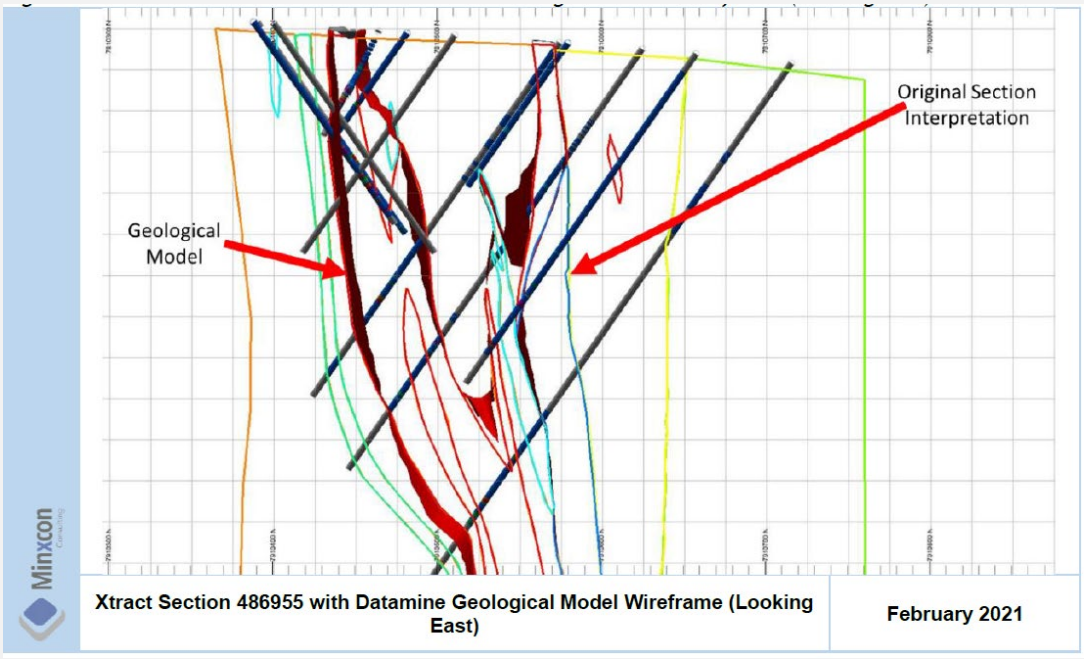
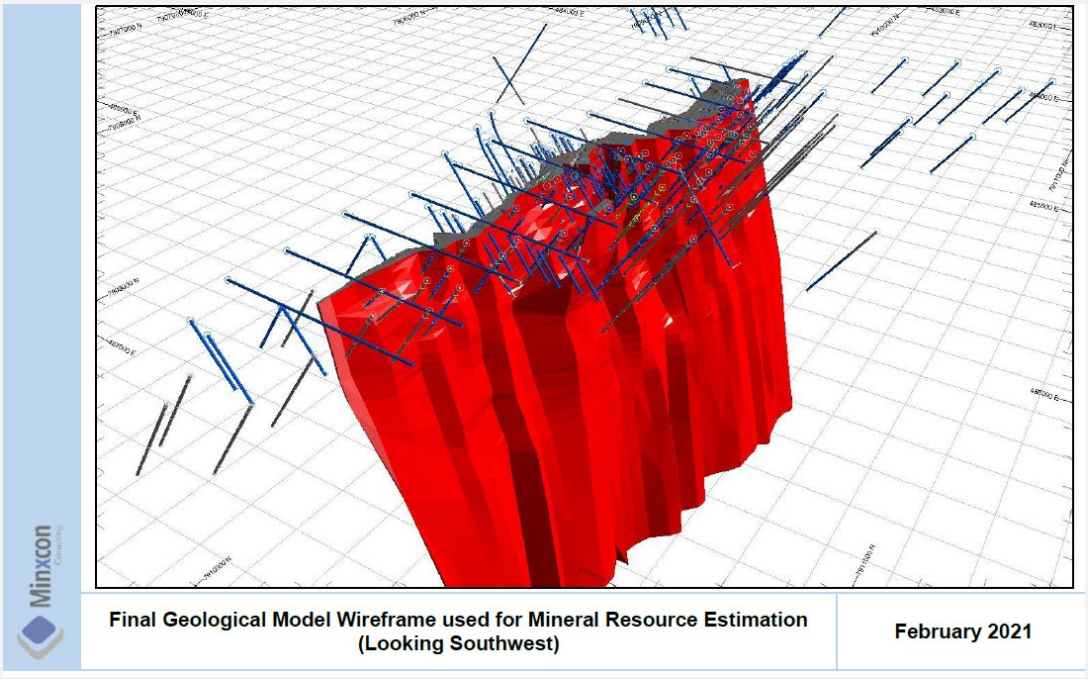


Figure 16: Final Geological Model Wireframe used for Mineral Resource Estimation (Looking Southwest)



(5) Exploration

Drillhole collar positions were surveyed by a qualified surveyor. Downhole surveys were carried out on 14 diamond drillholes. All drillholes drilled post 2011 were surveyed by a qualified surveyor using a DGPS to centimetre accuracy. Collar positions of drillholes were randomly checked in the field by a geologist using a global positioning system ("GPS"), and historical drillholes were re-surveyed by a qualified surveyor to warrant centimetre accuracy in 2007. Prior to 2007 no downhole surveys were completed, and post 2007 downhole survey was carried out by the Geosearch South Africa (Pty) Ltd on drillholes ANDD037 and ANDD039 using Reflex gyro downhole tool and all those drilled since June 2013 were surveyed by WeatherfordWireline Services, Tete, using a downhole gyro.

I. Gold In Soil Geochemical Survey

In 2001, bulk leach extractable gold in soil geochemical survey was completed on the southern portion of Mining Concession 3990C by Explorator Lda. This survey covered an area of 9.9 km by 1.5 km. The survey was completed using a 50 m X 100 m soil sampling grid. The 500 g samples were analysed by a bottle-roll in cyanide solution with an atomic absorption spectrometer ("AAS") finish with a 3 ppb detection limit. The laboratory that analysed the samples is unknown to Minxcon.

II. Arsenic In Soil Geochemical Survey

In 2003 to 2004, an initial orientation arsenic (As)-in-soil geochemical survey was conducted in the vicinity of the Fair Bride workings to ascertain the validity of the method. Soil samples were collected from a depth of 40 cm on a 10 m X 50 m grid along a limited strike length and along lines of 350 m. Samples collected were prepared and sent for analyses to Antech Laboratories in Kwekwe, Zimbabwe (SANAS accredited laboratory No. T0194). The sample analysis was carried out by total mixed acid digestion of 5 g and finished using an AAS finish. The method was shown to be valid and the survey area was extended for1.2 km east of Fair Bride. A 20 m X 100 m grid was used along 840 m lines.

III. Trenching

The strategy used for compositing and assaying trench samples was adopted from RC sampling, however the gold grade assays for trench samples were generally lower than the RC chip samples and diamond drill core samples. It was concluded that the lower gold grade assay might have been due to shallow dispersion processes in the supergene. It was decided to exclude the trench assay data due to mixing of samples and poor performance to the certified reference material ("CRM") and other reference material.

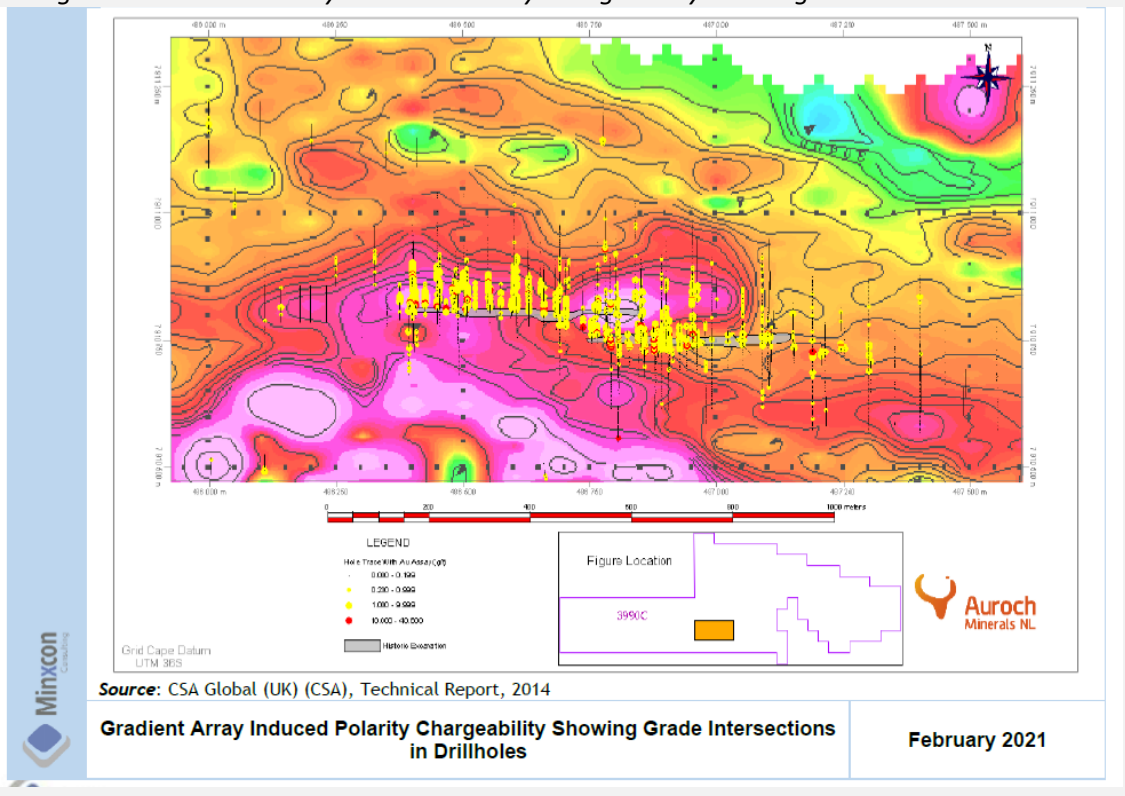
A total of twelve trenches totalling 3,357.50 m were dug to a 5 m depth and samples were collected as continuous 1 m channel samples from between 4 m and 5 m depths. Table 6 summarises the trenching that was completed on the Fair Bride prospect area.

Table 6: Trenching Summary

Trench ID	XCOLLAR	YCOLLAR	ZCOLLAR	Bearing	Dip	EOH
	WGS84 UTM Zone 36S	WGS84 UTM Zone 36S	m	°	°	m
TR1	486300.00	7910680.00	720.00	360	-3	241.00
TR10	487188.00	7910572.00	716.00	360	-3	310.00
TR11	487300.00	7910570.00	709.00	360	-3	302.50
TR12	487400.00	7910570.00	714.00	360	-3	309.00
TR2	486392.00	7910680.00	720.00	360	-3	150.00
TR3	486490.00	7910680.00	721.00	360	-4	225.00
TR4	486590.00	7910680.00	722.00	360	-4	300.00
TR5	486690.00	7910680.00	724.00	360	-4	300.00
TR6	486790.00	7910615.00	733.00	360	-5	300.00
TR7	486890.00	7910615.00	734.00	360	-6	310.00
TR8	486990.00	7910615.00	728.00	360	-5	300.00
TR9	487090.00	7910615.00	719.00	360	-4	310.00

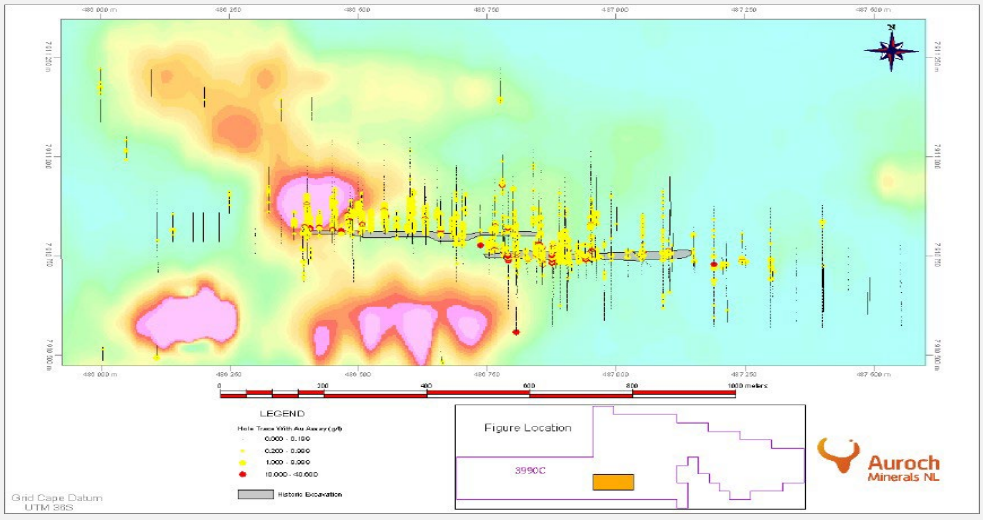
Spectral Geophysics completed a geophysical survey at the Fair Bride Prospect Area in 2003. The geophysical surveys completed include a ground magnetic TMI survey and a gradient array IP survey (Figure 18). A dipole-dipole IP survey was completed in 2005.

Figure 18: Gradient Array Induced Polarity Chargeability Showing Grade Intersections in Drillholes



In 2013, Airborne Geotech (Prikhodko, 2013) completed a VTEM survey (Figure 19) and a magnetometer survey (TMI) on their Mining Concession 3990C and the results were interpreted by Spectral Geophysics (Blignault, 2013).

Figure 19: VTEM dBdt Anomaly Showing Grade Intersections in Drillholes



Source: CSA Global (UK) (CSA), Technical Report, 2014

VTEM dBdt Anomaly Showing Grade Intersections in Drillholes **February 2021**

Figure 21 and Figure 22 below show gold and arsenic in soil geochemical surveys carried out in 2001 and 2003–2004 respectively. Note that the data collected from the area underlain by the alluvium is not to be taken into account as it does not reflect the Archean substrate with the target lithologies. Both element surveys are to some extent efficacious in representing the southern (and upslope) limit of the deposit.

Figure 21: Gold in Soil Showing Grade Intersections in Drillholes

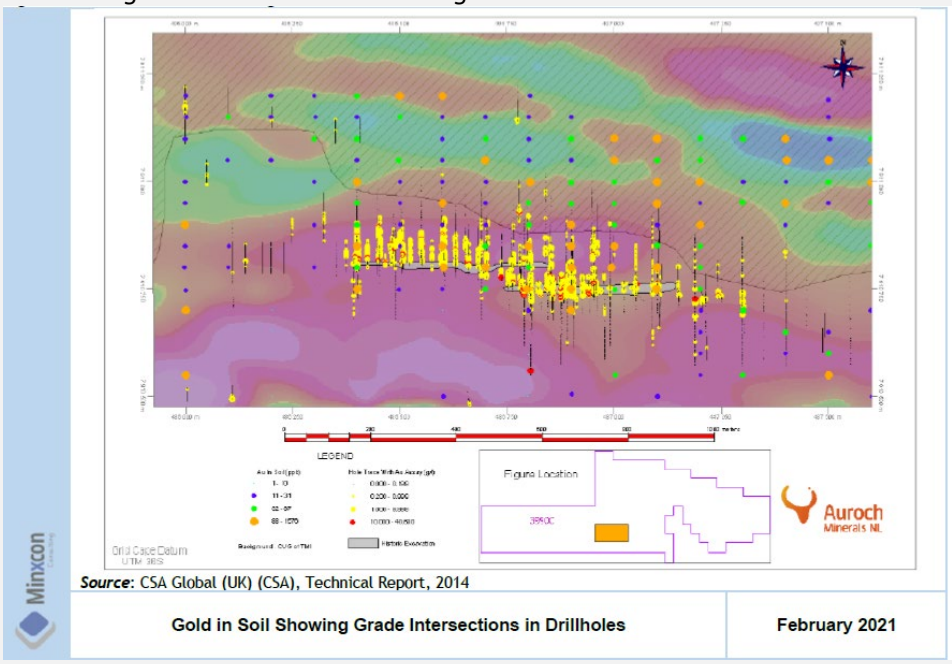
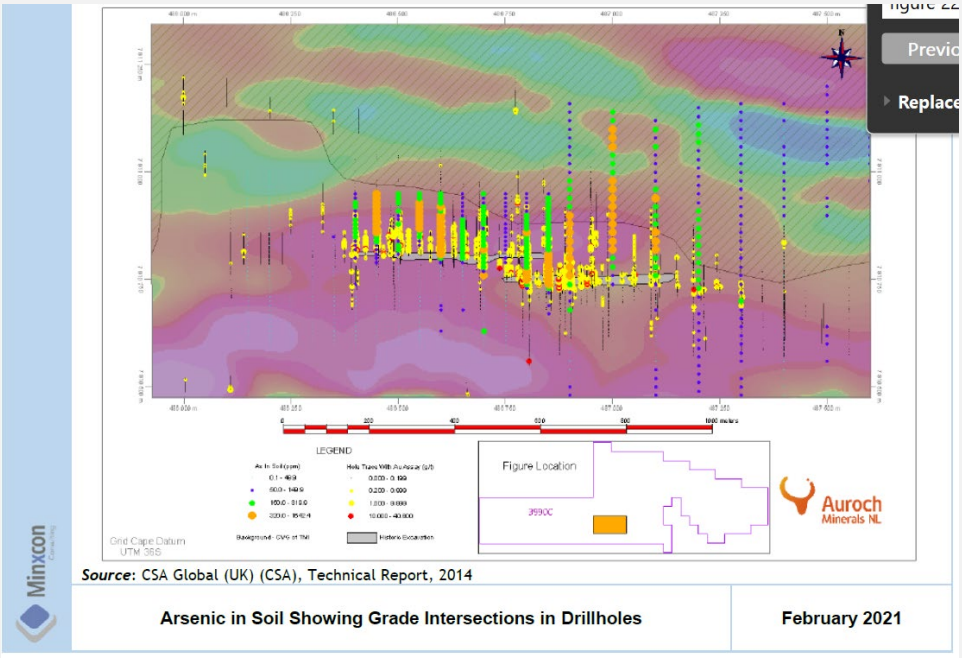


Figure 22: Arsenic in Soil Showing Grade Intersections in Drillholes



(6) Drilling

A total of 113 RC drillholes totalling 9,265.97 m were completed on the Fair Bride prospect. RC drillholes were drilled using a 120 mm bit using a face sampling hammer.

A total of 116 diamond drillholes totalling some 22,396.82 m was completed on the Fair Bride prospect. All diamond drillholes drilled prior to 2013 were drilled using HQ sized bits (63.50 mm) within the weathered zone while the NQ sized bits (47.60 mm) were used to drill in more competent material (fresh rock). Those drillholes drilled in 2012 and 2013 were drilled using PQ (85 mm) sized bits before casing off to HQ sized bits.

The Fair Bride mineralised shear zone strikes east-west and is dipping approximately 75°. All drillholes were inclined with a -50° to -60°dip and oriented in a north-south direction so as to minimise any bias between drilling orientation and mineralisation structure. All the intersections are reported as apparent (downhole) widths.

Sample recoveries for both RC chip samples and diamond drill samples were recorded. RC chip sample recoveries were measured by weighing each 1 m sample and recording the sample mass recovered. Scatter plots of assay gold grade vs recorded sample per metre and histograms of the recorded sample per metre mass did not indicate any systematic bias of these data sets.

Standard logging techniques were used for recording diamond drill core recoveries where the recovered core was measured and compared to the depth block inserted by the drilling contractor during drilling. Diamond drill core recoveries were reasonably good with a mean of 88 % and a median of 99%.

Table 7 and Table 8 summarise RC and diamond drilling that was undertaken on the Project Area. Drillholes ANDGT1 to ANDGT6 are geotechnical holes and MDD001 to MDD007 are metallurgical holes.

Table 7: RC Drillholes Summary

BHID	XCOLLAR	YCOLLAR	ZCOLLAR	Bearing	Dip	EOH	Start	Completion
	UTM Cape Zone 36S	UTM Cape Zone 36S	m	°	°	m	Date	Date
AND01	486905.36	7910681.67	721.93	360	-55	50.00	19-Feb-02	19-Feb-02
AND02	486911.90	7910704.98	720.07	360	-55	50.00	19-Feb-02	19-Feb-02
AND03	486905.70	7910728.80	719.41	360	-55	50.00	20-Feb-02	20-Feb-02
AND04	486903.93	7910757.59	717.33	360	-55	50.00	20-Feb-02	20-Feb-02
AND05	486901.29	7910782.05	715.80	360	-55	60.00	21-Feb-02	21-Feb-02
AND06	486902.20	7910814.77	713.51	360	-55	60.00	21-Feb-02	21-Feb-02
AND07	486856.27	7910677.70	725.51	360	-55	60.00	22-Feb-02	22-Feb-02
AND08	486855.46	7910708.97	723.68	360	-55	60.00	22-Feb-02	22-Feb-02
AND09	486854.59	7910740.28	722.08	360	-55	60.00	23-Feb-02	23-Feb-02
AND10	486852.76	7910770.35	717.94	360	-55	60.00	23-Feb-02	23-Feb-02
AND100	486350.00	7911260.00	691.00	180	-55	100.00	09-Feb-08	10-Feb-08
AND101	486230.00	7910860.00	710.00	180	-55	130.00	14-Feb-08	15-Feb-08
AND102	486200.00	7910860.00	710.00	180	-55	130.00	12-Feb-08	13-Feb-08
AND103	486180.00	7910860.00	710.00	180	-55	130.00	10-Feb-08	12-Feb-08

AND104	486140.00	7910860.00	710.00	180	-55	130.00	13-Feb-08	13-Feb-08
AND105	486110.00	7910860.00	710.00	180	-55	130.00	12-Feb-08	13-Feb-08
AND11	486852.70	7910801.53	715.68	360	-55	60.00	24-Feb-02	24-Feb-02
AND12	486854.22	7910832.14	713.98	360	-55	60.00	24-Feb-02	24-Feb-02
AND13	486805.70	7910677.22	727.44	360	-55	60.00	25-Feb-02	25-Feb-02
BHID	XCOLLAR	YCOLLAR	ZCOLLAR	Bearing	Dip	EOH	Start	Completion
	UTM Cape Zone 36S	UTM Cape Zone 36S	m	°	°	m	Date	Date
AND14	486805.05	7910706.25	725.48	360	-55	60.00	25-Feb-02	25-Feb-02
AND15	486804.33	7910734.55	723.57	360	-55	60.00	25-Feb-02	25-Feb-02
AND16	486807.73	7910767.12	719.88	360	-55	60.00	25-Feb-02	25-Feb-02
AND17	486804.62	7910794.75	717.81	360	-55	60.00	26-Feb-02	26-Feb-02
AND18	486804.34	7910826.97	716.33	360	-55	60.00	26-Feb-02	26-Feb-02
AND19	487102.74	7910655.83	714.98	360	-55	60.00	26-Feb-02	26-Feb-02
AND20	487104.37	7910685.03	713.18	360	-55	60.00	27-Feb-02	27-Feb-02
AND21	487107.37	7910709.18	711.63	360	-55	60.00	27-Feb-02	27-Feb-02
AND22	487108.45	7910743.92	709.58	360	-55	60.00	27-Feb-02	27-Feb-02
AND23	487111.55	7910773.79	707.82	360	-55	60.00	28-Feb-02	28-Feb-02
AND24	487103.72	7910803.49	705.82	360	-55	60.00	28-Feb-02	28-Feb-02
AND25	487103.44	7910831.90	703.87	360	-55	60.00	28-Feb-02	28-Feb-02
AND26	487105.36	7910851.71	701.87	360	-55	60.00	01-Mar-02	01-Mar-02
AND27	487104.04	7910887.13	702.82	360	-55	60.00	02-Mar-02	02-Mar-02
AND28	487103.64	7910916.09	700.87	360	-55	60.00	03-Mar-02	03-Mar-02
AND29	486604.56	7910780.67	714.21	360	-55	60.00	03-Mar-02	03-Mar-02
AND30	486106.35	7910427.98	731.97	360	-55	60.00	03-Mar-02	03-Mar-02
AND31	486104.41	7910462.14	729.81	360	-55	60.00	04-Mar-02	04-Mar-02
AND32	485997.94	7910416.45	723.67	360	-55	60.00	05-Mar-02	05-Mar-02
AND33	485997.45	7910451.16	723.73	360	-55	60.00	05-Mar-02	05-Mar-02
AND34	486002.57	7910487.47	722.90	360	-55	60.00	05-Mar-02	05-Mar-02
AND35	486106.97	7910491.05	728.01	360	-55	60.00	06-Mar-02	06-Mar-02
AND36	486805.93	7910692.09	726.40	360	-55	100.00	06-Mar-02	06-Mar-02
AND37	486855.85	7910693.45	724.30	360	-55	90.00	07-Mar-02	07-Mar-02
AND38	487205.32	7910746.99	706.71	180	-55	80.00	31-Oct-03	31-Oct-03
AND39	487052.55	7910787.95	708.17	180	-55	81.00	31-Oct-03	31-Oct-03
AND40	486954.91	7910780.95	712.87	180	-55	81.00	01-Nov-03	01-Nov-03
AND41	486753.82	7910793.15	718.08	180	-55	75.00	02-Nov-03	02-Nov-03
AND42	486505.16	7910827.58	709.32	180	-55	70.00	03-Nov-03	03-Nov-03
AND43	486202.01	7911174.99	704.51	180	-55	87.00	03-Nov-03	03-Nov-03
AND44	484501.81	7910821.95	731.84	180	-55	78.00	04-Nov-03	04-Nov-03
AND45	484116.02	7910905.00	708.51	180	-55	75.00	06-Nov-03	06-Nov-03
AND46	483846.05	7910917.00	711.34	180	-55	72.00	07-Nov-03	07-Nov-03
AND47	483703.37	7910932.60	716.29	180	-55	60.00	07-Nov-03	07-Nov-03
AND48	483523.69	7910965.41	705.66	180	-55	66.00	08-Nov-03	08-Nov-03
AND49	485201.80	7910434.82	749.50	180	-55	90.00	09-Nov-03	10-Nov-03
AND50	484505.15	7910774.56	739.41	360	-55	96.00	05-Mar-04	08-Mar-04
AND51	484504.10	7910778.65	739.28	180	-55	96.00	08-Mar-04	09-Mar-04
AND52	485222.99	7910706.86	723.61	180	-55	100.00	10-Mar-04	10-Mar-04
AND53	485723.96	7910809.98	704.95	180	-55	100.00	22-Mar-04	22-Mar-04

AND54	486408.67	7911148.46	696.10	180	-55	100.00	17-Mar-04	17-Mar-04
AND55	486402.14	7910783.28	714.03	180	-55	99.00	30-Mar-04	30-Mar-04
AND56	487215.09	7910640.22	711.34	180	-55	100.00	16-Mar-04	16-Mar-04
AND57	487401.71	7910667.05	705.38	180	-55	100.00	18-Mar-04	18-Mar-04
AND58	487490.96	7910636.84	704.65	360	-55	100.00	19-Mar-04	19-Mar-04
AND59	487486.38	7910602.09	710.83	360	-55	100.00	20-Mar-04	20-Mar-04
AND60	487401.05	7910668.72	705.32	360	-55	100.00	20-Mar-04	20-Mar-04
AND61	483921.16	7910855.87	719.51	360	-55	100.00	23-Mar-04	23-Mar-04
AND62	483837.98	7910862.04	719.56	360	-55	100.00	24-Mar-04	24-Mar-04
AND63	483515.19	7910896.75	720.47	360	-55	67.00	25-Mar-04	25-Mar-04
AND64	486604.64	7910917.51	708.45	180	-55	100.00	09-Jan-05	09-Jan-05
AND64A	486600.03	7910919.88	708.57	180	-55	39.00		
AND65	486506.27	7910908.86	705.98	180	-55	100.00	10-Jan-05	10-Jan-05
AND66	486455.03	7910921.13	705.51	180	-55	106.00	11-Jan-05	11-Jan-05
AND67	486804.02	7910867.00	713.15	180	-55	106.00	12-Jan-05	12-Jan-05
AND68	486850.41	7910870.00	710.68	180	-55	100.00	12-Jan-05	12-Jan-05
BHID	XCOLLAR	YCOLLAR	ZCOLLAR	Bearing	Dip	EOH	Start	Completion
	UTM Cape Zone 36S	UTM Cape Zone 36S	m	°	°	m	Date	Date
AND69	486902.77	7910870.64	708.54	180	-55	100.00	17-Jan-05	17-Jan-05
AND70	486952.70	7910878.79	706.52	180	-55	106.00	14-Jan-05	14-Jan-05
AND71	487000.45	7910874.08	705.97	180	-55	106.00	15-Jan-05	15-Jan-05
AND72	487050.57	7910853.58	705.47	180	-55	100.00	18-Jan-05	18-Jan-05
AND73	488054.01	7910551.88	703.62	180	-55	100.00	29-Jan-05	29-Jan-05
AND74	488095.16	7910551.00	704.05	180	-55	100.00	28-Jan-05	28-Jan-05
AND75	488194.52	7910431.60	711.89	180	-55	100.00	30-Jan-05	30-Jan-05
AND76	486406.87	7910737.21	717.04	360	-55	60.00	26-Jan-05	26-Jan-05
AND77	486509.30	7910851.83	708.59	180	-55	65.00	19-Jan-05	19-Jan-05
AND78	486707.25	7910908.75	710.86	180	-55	100.00	26-Jan-05	26-Jan-05
AND79	487502.82	7910354.59	742.95	180	-55	78.00	31-Jan-05	31-Jan-05
AND80	486604.50	7910839.76	712.20	180	-55	60.00	19-Oct-07	19-Oct-07
AND81	486552.70	7910839.11	709.01	180	-55	60.00	19-Oct-07	19-Oct-07
AND82	486466.91	7910828.89	710.85	180	-55	44.00	20-Oct-07	20-Oct-07
AND83	486375.00	7910865.00	710.00	180	-55	130.00		
AND84	486425.00	7910865.00	710.00	180	-55	115.00		
AND85	486485.00	7910865.00	708.00	180	-55	120.47	24-Jan-08	05-Mar-08
AND86	486525.00	7910865.00	710.00	180	-55	104.00		
AND87	486575.00	7910865.00	710.00	180	-55	124.00		
AND89	486325.00	7910915.00	710.00	180	-55	100.00		
AND90	486250.00	7910915.00	710.00	180	-55	100.00		
AND91	486325.00	7910975.00	707.00	180	-55	135.00		
AND92	486000.00	7911145.00	703.00	180	-55	100.00	06-Feb-08	07-Feb-08
AND93	486000.00	7911225.00	702.00	180	-55	120.00	01-Feb-08	05-Feb-08
AND94	486000.00	7911330.00	698.00	180	-55	120.00	05-Feb-08	07-Feb-08
AND95	486050.00	7911050.00	607.00	180	-55	100.00	07-Feb-08	08-Feb-08
AND96	486100.00	7911220.00	702.00	180	-55	120.00	31-Jan-08	01-Feb-08
AND97	486100.00	7911290.00	702.00	180	-55	97.00	07-Feb-08	09-Feb-08
AND99	486350.00	7911147.00	699.00	180	-55	100.00	10-Feb-08	11-Feb-08

ANDMT1	486400.00	7910819.00	712.00	180	-55	51.50		
ANDMT2	486400.00	7910847.00	711.00	190	-50	63.50		
ANDMT3	486486.00	7910862.00	707.00	190	-50	60.50		
ANDMT4	486486.00	7910892.00	706.00	190	-50	81.50		
ANDMT5	486600.00	7910827.00	712.00	190	-50	51.50		
ANDMT6	486600.00	7910851.00	710.00	190	-50	51.50		
ANDMT7	486890.00	7910766.00	718.00	190	-50	75.50		
ANDMT8	486890.00	7910783.00	716.00	190	-50	86.50		
ANDMT9	486486.00	7910842.00	713.00	190	-50	55.50		

Table 8: Diamond Drillholes Summary

BHID	XCOLLAR	YCOLLAR	ZCOLLAR	Bearing	Dip	EOH	Start	Completion
	UTM Cape Zone 36 S	UTM Cape Zone 36S	m	°	°	m	Date	Date
ANDD001	486605.57	7910864.28	710.44	180	-55	203.95	05-Feb-04	07-Feb-04
ANDD002	486845.02	7910675.92	726.42	360	-55	194.70	21-Jan-04	28-Jan-04
ANDD003	487049.47	7910702.34	714.11	360	-55	158.25	28-Jan-04	31-Jan-04
ANDD004	487212.50	7910645.39	711.26	360	-55	174.65	01-Feb-04	03-Feb-04
ANDD005	486396.94	7910829.91	712.70	180	-55	74.55	08-Feb-04	09-Feb-04
ANDD006	486299.94	7910752.80	714.94	360	-55	125.40	09-Feb-04	11-Feb-04
ANDD007	486959.00	7910687.66	719.48	360	-55	149.70	11-Feb-04	22-Feb-04
ANDD008	486701.93	7910855.94	714.07	180	-55	230.90	23-Feb-04	26-Feb-04
ANDD009	486856.34	7910668.42	726.18	360	-55	184.81	25-Jan-07	01-Feb-07
ANDD010	486805.66	7910697.51	726.12	360	-55	160.16	11-Feb-07	17-Feb-07
ANDD011	486855.72	7910701.30	723.93	360	-55	160.16	02-Feb-07	06-Feb-07
ANDD012	486803.82	7910861.21	713.51	180	-55	117.91	07-Feb-07	10-Feb-07
ANDD013	486753.45	7910700.03	725.31	360	-55	161.50	25-Feb-07	01-Mar-07
BHID	XCOLLAR	YCOLLAR	ZCOLLAR	Bearing	Dip	EOH	Start	Completion
	UTM Cape Zone 36 S	UTM Cape Zone 36S	m	°	°	m	Date	Date
ANDD014	486990.43	7910689.76	716.90	360	-55	149.40	18-Feb-07	20-Feb-07
ANDD015	487021.89	7910696.44	715.30	360	-55	127.32	21-Feb-07	25-Feb-07
ANDD016	486925.98	7910691.84	719.79	360	-55	174.90	09-Mar-07	15-Mar-07
ANDD017	486906.12	7910686.41	721.64	360	-55	189.77	02-Mar-07	09-Mar-07
ANDD018	486631.19	7910861.53	711.38	180	-55	144.80	09-Apr-07	18-Apr-07
ANDD019	486804.20	7910822.09	716.59	180	-55	91.32	15-May-07	17-May-07
ANDD020	486552.90	7910864.14	708.07	180	-55	150.22	26-Mar-07	30-Mar-07
ANDD021	487213.26	7910785.31	704.49	180	-55	115.65	15-Mar-07	17-Mar-07
ANDD022	487302.21	7910743.74	702.08	180	-45	135.30	18-Mar-07	21-Mar-07
ANDD023	486926.34	7910724.05	717.39	360	-55	89.15	09-May-07	13-May-07
ANDD024	486774.74	7911226.20	686.38	180	-55	160.55	02-Apr-07	08-Apr-07
ANDD025	486952.53	7910873.92	706.78	180	-55	262.50	20-Apr-07	30-Apr-07
ANDD026	486737.40	7910879.71	711.54	180	-55	191.25	21-Mar-07	26-Mar-07
ANDD027	486604.50	7910912.76	708.40	180	-55	190.13	26-Mar-07	04-Apr-07
ANDD028	486905.35	7910723.12	719.78	360	-55	103.28	01-May-07	08-May-07
ANDD029	486805.79	7910633.69	731.18	360	-55	250.72	27-May-07	18-Jun-07

ANDD030	486850.60	7910726.51	723.67	360	-55	52.92	22-May-07	26-May-07
ANDD031	486900.05	7910888.28	707.30	180	-55	280.43	14-Nov-07	20-Nov-07
ANDD031A	486903.43	7910612.92	732.65	360	-55	224.15		
ANDD032	486900.05	7910719.28	720.30	360	-45	66.95	20-May-07	21-May-07
ANDD033	486877.02	7910646.60	728.66	360	-55	240.77	21-Jul-07	10-Aug-07
ANDD034	486926.00	7910931.30	703.21	180	-55	44.89	22-Sep-07	25-Sep-07
ANDD035	486976.52	7910586.48	735.14	360	-55	367.20	04-Aug-07	18-Sep-07
ANDD036	486450.00	7911045.00	701.00	180	-55	322.96	18-May-08	29-May-08
ANDD037	486875.00	7910573.79	740.64	180	-55	434.97	29-Jul-07	22-Aug-07
ANDD038	486952.60	7910924.16	703.07	180	-55	312.17	17-Sep-07	23-Sep-07
ANDD039	486804.63	7910550.00	739.35	180	-55	552.25	31-Jul-07	19-Sep-07
ANDD040	486764.85	7910947.68	708.87	180	-55	302.94	02-Nov-07	26-Nov-07
ANDD041	486850.14	7910910.15	707.70	180	-55	350.00	16-Nov-07	24-Nov-07
ANDD041A	486855.83	7910606.62	735.40	360	-55	300.00	26-Jul-07	13-Aug-07
ANDD042	486827.89	7910698.61	725.32	360	-55	78.70	12-Jul-07	18-Jul-07
ANDD043	486824.19	7910717.16	724.42	360	-55	93.25	07-Jul-07	11-Jul-07
ANDD044	486924.58	7910765.02	715.79	140	-55	79.45	15-Jul-07	18-Jul-07
ANDD045	486950.93	7910763.68	713.78	135	-55	99.83	11-Jul-07	14-Jul-07
ANDD046	487031.36	7910763.28	710.38	140	-55	96.64	18-Jul-07	21-Jul-07
ANDD047	486763.80	7910831.96	714.98	180	-55	160.02	17-Oct-07	22-Oct-07
ANDD048	486780.16	7910880.39	712.27	180	-55	200.65	01-Oct-07	09-Oct-07
ANDD049	486782.53	7910830.91	715.50	180	-55	161.18	28-Sep-07	06-Oct-07
ANDD050	486783.77	7910797.37	717.62	180	-55	68.47	25-Sep-07	28-Sep-07
ANDD051	486779.37	7910900.92	711.53	360	-55	181.00	07-Oct-07	11-Oct-07
ANDD052	486702.02	7910919.96	710.17	180	-55	210.69	09-Oct-07	13-Oct-07
ANDD053	486683.54	7910852.78	713.83	180	-55	141.88	12-Oct-07	16-Oct-07
ANDD054	486682.65	7910917.67	710.20	180	-55	201.00	13-Oct-07	18-Oct-07
ANDD055	486507.83	7910848.17	708.60	180	-55	90.93	19-Oct-07	20-Oct-07
ANDD056	486506.97	7910886.37	706.65	180	-55	130.88	21-Oct-07	24-Oct-07
ANDD057	486453.77	7910895.67	707.13	180	-55	156.67	24-Oct-07	27-Oct-07
ANDD058	486449.39	7910859.34	709.18	180	-55	132.75	23-Oct-07	26-Oct-07
ANDD059	486403.64	7910909.89	708.18	180	-55	132.83	28-Oct-07	02-Nov-07
ANDD060	486405.44	7910855.38	710.90	180	-55	111.39	30-Oct-07	01-Nov-07
ANDD061	487150.55	7910763.45	707.65	180	-55	100.26	08-Nov-07	10-Nov-07
ANDD062	487149.62	7910824.08	704.84	180	-55	201.89	05-Nov-07	11-Nov-07
ANDD063	487250.45	7910775.45	702.25	180	-55	102.90	12-Nov-07	16-Nov-07
ANDD064	487242.62	7910823.55	702.52	180	-55	169.13	11-Nov-07	13-Nov-07
ANDD065	486599.92	7910940.00	707.50	180	-55	220.30	24-Jan-08	13-Feb-08
ANDD066	486400.80	7910969.77	704.46	180	-55	232.13	11-Jan-08	17-Jan-08
ANDD067	486507.09	7910930.00	706.10	180	-55	203.00	18-Jan-08	23-Jan-08
BHID	XCOLLAR	YCOLLAR	ZCOLLAR	Bearing	Dip	EOH	Start	Completion
	UTM Cape Zone 36 S	UTM Cape Zone 36S	m	°	°	m	Date	Date
ANDD068	486549.69	7910925.00	707.32	180	-55	214.20	25-Jan-08	04-Feb-08
ANDD069	486455.00	7910940.09	704.50	180	-55	230.80	22-Feb-08	27-Feb-08
ANDD070	486500.00	7911040.00	701.00	180	-55	302.32	30-May-08	06-Jun-08
ANDD071	486630.20	7910899.93	710.22	180	-55	186.95	04-Dec-07	08-Dec-07
ANDD072	486629.79	7910945.25	708.13	180	-55	202.32	08-Dec-07	12-Dec-07

ANDD073	486659.75	7910899.93	711.08	180	-55	184.17	03-Dec-07	07-Dec-07
ANDD074	486652.76	7910975.00	707.79	180	-55	271.10	05-Feb-08	12-Feb-08
ANDD075	486960.72	7910956.97	707.09	180	-55	244.45	29-Nov-07	03-Dec-07
ANDD076	486550.00	7911035.00	703.00	180	-55	309.95	07-Jun-08	15-Jun-08
ANDD077	486800.09	7910949.86	708.00	180	-55	283.43	27-Nov-07	03-Dec-07
ANDD078	487100.00	7910815.00	705.00	180	-55	213.42	21-Feb-08	26-Feb-08
ANDD079	487050.00	7910860.00	702.00	180	-55	226.93	13-Feb-08	21-Feb-08
ANDD080	486600.00	7911050.00	702.00	180	-55	343.18	20-Jun-08	30-Jun-08
ANDD082	486900.00	7910950.00	705.00	180	-55	340.00	13-Feb-08	20-Feb-08
ANDD083	486854.00	7910967.00	704.00	180	-55	319.15	07-Mar-08	12-Mar-08
ANDD084	486111.00	7910917.00	710.00	180	-55	366.40	27-Feb-08	12-Mar-08
ANDD085	486439.00	7910421.00	782.00	180	-55	241.12	20-Mar-08	26-Mar-08
ANDD085A	486432.00	7910470.00	771.00	180	-50	66.00	14-Mar-08	18-Mar-08
ANDD086	486669.00	7910457.00	784.00	360	-50	102.78	14-Mar-08	19-Mar-08
ANDD087	486840.00	7911020.00	700.00	180	-55	349.28	27-Mar-08	02-Apr-08
ANDD088	486950.00	7911015.00	695.00	180	-55	461.15	03-Apr-08	17-Apr-08
ANDD089	486500.00	7910980.00	704.00	180	-55	253.14	18-Apr-08	22-Apr-08
ANDD090	486550.00	7910980.00	706.00	180	-55	268.04	23-Apr-08	26-Apr-08
ANDD091	486600.00	7910996.00	705.00	180	-55	270.48	27-Apr-08	05-May-08
ANDD092	486450.00	7910985.00	703.00	180	-55	267.84	05-May-08	11-May-08
ANDD093	486400.00	7911032.00	704.00	180	-55	302.05	11-May-08	17-May-08
ANDD097	486485.00	7910925.00	706.00	180	-55	172.20	02-Jul-08	05-Jul-08
ANDD101	487300.00	7910820.00	699.00	180	-55	272.00	06-Jul-08	10-Jul-08
ANDD102	487600.00	7910700.00	680.00	180	-55	190.30	11-Jul-08	16-Jul-08
ANDD103	487350.00	7910670.00	705.64	180	-55	146.19		
ANDD104	487349.38	7910770.39	696.14	180	-55	125.01		
ANDD105	487552.75	7910681.21	698.59	180	-55	185.21		
ANDD106	487448.99	7910771.48	695.67	180	-55	187.99		
ANDD107	487550.85	7910778.79	693.64	180	-55	185.25		
ANDGT1	486455.00	7910842.00	709.00	180	-55	103.28		
ANDGT2	486455.00	7910759.00	714.00	360	-50	152.30		
ANDGT3	486630.00	7910873.00	710.00	180	-55	147.00		
ANDGT4	486630.00	7910790.00	714.00	360	-50	140.17		
ANDGT5	486959.00	7910810.00	710.00	180	-55	161.34		
ANDGT6	486959.00	7910700.00	717.00	360	-55	170.42		
MDD001	486875.00	7910693.00	723.00	360	-55	145.15		
MDD002	486940.00	7910690.00	719.00	360	-55	156.85		
MDD003	486759.00	7910880.00	711.50	180	-55	154.29		
MDD004	486660.00	7910855.00	723.50	180	-55	128.56		
MDD005	486352.00	7910858.00	712.00	180	-55	141.69		
MDD006	487100.00	7910698.00	719.80	360	-45	150.53		
MDD007	487300.00	7910777.00	701.00	180	-45	127.12		

(7) Sample preparation, Analyses and Security

A qualified geologist logged both RC and diamond drillholes at the time of drilling. In 2014, Auroch Minerals' geologist re-logged previous diamond drillholes to standardise historical codes and verification of weathering or oxidation boundaries.

Sampling of diamond drill core was conducted at 1 m intervals, but was constrained by the geological contacts. The diamond drill core was not orientated during drilling; however, the centre line was drawn using the foliation plane for reference. Drill core was sawn and then split into two halves, of which one was then marked, sampled and dispatched to a variety of accredited laboratories by a qualified geologist. The remaining split half core was stored in a standard core tray onsite in a covered core shed.

RC samples were collected at 1 m intervals. The samples were weighed and a rifle splitter was used to split samples down to 6 kg. 200 g sub-samples were then scooped from each 6 kg sample and used to make up a 3 m composite sample. The remaining 5.8 kg of the 6 kg sample was stored in a secure core yard at Cacarue. The 3 m composites samples were assayed. Samples were sent to variety of accredited laboratories.

This section was adopted from the 2010 Independent Competent Persons Report for the Manica Assets, of Pan African Resources PLC which was compiled by ExplorMine Consultants. No current sampling was available to assess the preparation or analysis procedures at the time of the generation of this Report.

Prior to 2006, the site geologist personally transported each batch of samples from Manica to Mutare in Zimbabwe for analysis by Antech Laboratories. Any sample packets opened for inspection by customs officials were re-sealed by the site geologist. After inspection by customs, all sample packets were sealed in polyweave sacks and delivered to Swift Transport (in Mutare) for shipment to Antech Laboratories in Kwekwe, Zimbabwe.

The Antech Laboratory did not report any damaged consignments. It was considered by ExplorMine Consultants that the chain of custody was adequate.

Antech Laboratory in Kwekwe, Zimbabwe, which was SANAS accredited (testing laboratory No. T0194) at the time of the Manica exploration-drilling programmes carried out all sample analyses prior 2006. Each sample was dried, crushed and pulverised. A quartz wash was used to clean equipment between individual samples. A 50 g aliquot was taken for analysis. Gold analysis was conducted by means of fusion of the 50 g aliquot, followed by AAS determination to a detection limit of 0.01 ppm.

A rigorous QAQC system was put in place whereby every tenth sample submitted to the laboratory consisted of a standard, blank or a duplicate control sample.

All pulps were retained at the Antech laboratory, however Minxcon is not aware of how long the pulps were retained at the laboratory. Duplicate sample pulps were also submitted to Genalysis Laboratories (Accredited by the National Association of Testing Authorities, Australia, of Perth, Australia for comparative purposes).

From 2006 to 2008 samples were submitted to SGS Lakefield's Johannesburg-based analytical laboratory or on some occasions to SGS Lakefield's Barberton laboratory for analysis. The SGS Lakefield laboratories are SANAS accredited (testing laboratory No. T0169). Analysis was by fire assay with fusion of a 50 g aliquot followed by AAS to a limit of 0.01 ppm. This was a total assay.

In terms of the sample preparation for geological samples, at SGS's laboratories, the following sample preparation procedure was followed:

- Samples were removed from the shipping container or plastic bags. Samples were dried overnight at 110°C as required.
- The entire sample was passed through a jaw crusher. The jaw crusher product was randomly monitored by means of sieving. Crusher product specification was ~80% -2 mm. A silica rock sample was crushed between each sample and the resultant product discarded in order to prevent cross- contamination of samples. The jaw crusher was cleaned by means of compressed air between samples. In addition, a silica blank was processed with each batch of samples and was taken through the entire process including analysis. This sample is identified as "Waste Rock" and was used to monitor possible sample preparation contamination.
- A riffle splitter was utilised to riffle out 150-250 g of RC samples. The reject sample material was stored and labelled in plastic bags and placed into storage.
- A sub-sample was then pulverised for ~6 minutes in a Labotec LM2 mill. The barrels were cleaned with crushed silica rock between samples. The mill product was randomly checked using a 75 µm screen. The minimum target for the mill product was 90% -75 µm.
- The sample was then labelled for analysis and submitted to the analytical laboratory.

The SGS analytical procedure is summarised as follows:-

- The sample was matted if required, and was then weighed.
- The appropriate amount of the appropriate flux was added and then mixed with the sample. If required, the reducing power was determined, and then the appropriate amounts of flour, nitre and silver were added.
- The sample was then fused, poured and then cooled. The button was then deslagged. It was then pounded into a cube and then cupelled until the Doré bead formed.
- For Atomic Absorption or ICP-OES analysis the bead was dissolved in aqua regia (3:1 hydrochloric acid to nitric acid). This was then diluted if deemed necessary.
- For gravimetric determinations, the bead was parted in a 50% nitric acid solution to remove the silver.
- Data reduction by: computer, on line, data was fed to the laboratory information management system with a secure audit trail.
- Quality control: Two weighed duplicates, standard reference material and blank for every furnace batch of 21 samples was automatically assigned by the LIMS system for the full Fire Assay batch.
- Precision: 5% relative precision for samples with Au values greater than 1 g/t was required. The precision was expected to increase, as the detection level was approached. The inhomogeneity of some samples might have increased this value.

The laboratories were not audited.

Blanks, field duplicates and CRMs were allocated to the sampling sequence. From 2006 to 2010, a duplicate assay was submitted every 10th sample for diamond drilling, or at every 30 m for the RC drilling, however from the information Minxcon has, it is not clear if there was consistency in the placement of other control materials. 10% of the total samples consisted of a combination of duplicates, blanks and CRMs.

The QAQC summary report, the content of which is reflected in this section of the Report, was prepared on 7 July 2014 by Mr D Muir of CSA (UK). The QAQC summary report includes samples collected from 1 January 1998 to 2 July 2014. The QAQC summary report was reviewed by CSA Global (UK) when they compiled a Technical Report on Fair Bride Mineral Resource Estimate in 2014. Table 9, Table 10 and Table 11 below shows summaries of samples collected and QAQC reference materials that were taken during the project and sent the laboratories, however Minxcon did not review the QAQC, but did review the CSA QAQC report and concur with their findings.

Table 9: Summary of Samples Sent to the Laboratories

Laboratory	Antech_Kwekwe	SetPoint_JHB	SGS_Lakefield	SGS_Barberton	Total
No. of Batches	29	14	81	92	216
No. of DH Samples	2,331	1,226	3,820	7,874	15,251
No. of QC Samples	0	1	311	165	477
No. of Standard Samples	86	274	861	458	1,679
Total	**2,446**	**1,515**	**5,073**	**8,589**	**17,623**

Note: Minxcon did not review the QAQC.

Table 10: QC Category Ratios

QC Category	DH Sample Count	QC Sample Count	Ratio of QC Samples to DH Samples
Field Duplicate	15,251	374	1:41
Lab Pulp Checks	15,251	103	1:148

Table 11: Standard Type Ratios

Standard Type	DH Sample Count	Standard Type Count	Standard Sample Count	Ratio of QC Standard to DH Samples
Client	15,251	10	268	1:59
Lab	15,251	13	395	1:40
NR	15,251	24	1,025	1:15

The results of the QAQC review done by Mr Muir is summarised as follows:-

- Laboratory Blanks:-
  - No issues for Setpoint and SGS;
  - No blank results available for Antech;

- Laboratory CRMs:-
  - Antech – Acceptable accuracy and precision;
  - Setpoint – Acceptable accuracy and precision;
  - SGS Barberton – No expected values available;
  - SGS Lakefield – Some precision and accuracy issues. CRM SN26 under reporting with multiple failures;
- Client Blanks - Some failures but overall acceptable results. Failures could be mislabelled or misidentified CRMs;
- Client CRMs - Poor precision and accuracy exhibited in most CRMs with multiple failures. Numerous significant failures which could possibly be attributed to mislabelling of blanks and CRMs; and
- Field Duplicates - Poor correlation but no significant bias. Slight bias to the original samples at lower grades.
- Lab Pulp Checks - No significant bias.

Statistical analysis of the results shows no systematic variation between the original and field duplicate and standards and blanks performed within standard tolerances. If any of the standards or blanks assayed outside standard tolerances the entire batch was re-submitted for re-assay.

Field duplicates were within the acceptable standard tolerance, which means that the sample preparation was acceptable. However, no historical information is available on the QAQC of sub-sampling preparation and or sample representivity.

No bias with respect to core recoveries was noted. However, in cases where there was excessive core loss and no representative sample was possible, that particular sample was marked as an absent value in the modelling process so that there would be no negative bias. In addition to this the areas that were not sampled as a result of low or no mineralisation were given a value 0.01 g/t (half the detection limit) so that the neighbouring samples with grade were not smeared into low grade areas causing a positive bias.

Minxcon is not aware of any audits that were carried out on the sampling processes and procedures during the drilling and exploration campaigns. The QAQC data was however reviewed during the previous CPRs and found to be acceptable. Minxcon also did not detect any anomalies in this respect during its validation process of the data. Therefore, Minxcon has not identified any material risk in the sampling preparation and analysis of the Project.

As part of the 2014 Mineral Resource Estimation, Mr Malcolm Titley, Principal Consultant, CSA Global (UK) Ltd, visited the property following the 2013 drilling campaign on two of the other deposits which were drilled in the same campaign within the mining concession. After Mr Titley reviewed the drilling and sampling methodology, he concluded that the drilling and sampling data was satisfactory for the purposes of Mineral Resource estimation.

Data verification processes completed by Minxcon includes checking of overlapping intervals, missing and repeat data on geological logs, assay, collar survey, downhole survey.

Mr Uwe Engelmann, Qualified Person for this Report, also inspected the Fair Bride Project in March 2016. During this site visit he verified that the drill core does correlate with the drillhole logs and sections which form the basis of the geological model as well as the estimation model. Therefore, the database used for the estimation was deemed appropriate and reliable for the purpose of the estimation.

There is no limitation on/failure to conduct data verification process.

All the data verified and viewed by Minxcon were considered to be satisfactory for the purposes of Mineral Resource estimation and adequate for the purposes of Mineral Resource classification in accordance with the guidance provided by CIM and NI 43-101.

(8) Mineral Processing and Metallurgical Testing

Early testwork conducted by SGS Laboratories ("SGS") in 2006 and 2010 indicated that oxide material was amenable to whole-ore leaching while the sulphides were amendable to flotation. Testwork on the sulphides were primarily focussed on testing the viability of biological oxidation processes on flotation concentrates.

More recent testwork conducted by Maelgwyn in 2014 aimed at verifying the 2006 flotation results as well as testing alternative, less capital intensive, oxidation processes prior to cyanidation. Further work was completed at Nagrom Laboratories in 2015 to investigate selling of flotation concentrates to smelters. The Nagrom work served to further confirm that the sulphides are amenable to flotation.

The following summarises the major testwork that was conducted on Fair Bride ore material:-

Table 12: Summary of Testwork

Report	Date	Samples
Laboratory flotation testwork on bore core samples from the Manica gold deposit. SGS report 05-436	July 2006	Sulphide, boreholes MDD 1 to 4
Additional talc depression flotation tests on Manica sulphides. SGS report 06-346	December 2006	Sulphides, boreholes MDD 1 to 3
Bacterial oxidation amenability tests of cleaner and re-cleaner concentrates	May 2007	Flotation concentrates
Gold dissolution testwork on gold bearing oxide samples from Manica. SGS report 10-DD23	June 2010	Oxides, 12 trench samples
Testwork on Manica transitional ore, SGS	2013	Transitional ore
Ultra-fine grind and oxidation confirmatory tests conducted by Maelgwyn	2014	Sulphides
Comminution testwork at ALS. ALS project A16546	2015	Sulphides
Nagrom Laboratories for flotation concentrate production, report T1980	October 2015	Sulphides

I. OXIDES

Stirred and heap leach cyanidation tests were conducted on the oxides by SGS in 2010. Gold dissolution recoveries ranged from 84% to 95% for samples with varying grades. Simulated heap leach tests resulted in recoveries of 89% and 94% within 36 hours. Although heap leaching results showed promise,

tank leaching is preferred due to improved leaching kinetics. Cyanide and lime consumptions under excess conditions varied between 0.9 and 1.6 kg/t and 5.3 and 14 kg/t respectively. Further reagent optimisation and variability tests were not conducted.

Further tests were conducted in 2013 by SGS. A single test conducted by SGS indicated that a 24-hour leach can be achieved with air sparging at a recovery of 96.5%.

II. SULPHIDES

The SGS tests of 2006 focussed on optimising flotation conditions and to produce float concentrate samples for biological oxidation tests. Drill core samples of the sulphides were used in the testwork. The test results are summarised in SGS reports 05-436. The following conclusions and summary points were made:-

- The sulphides are amenable to flotation with the following reagent consumptions used:-
  - 100 g/t $CuSO_4$;
  - 40 g/t PAX;
  - 50 g/t KU47; and
  - DOW 200 frother.
- A grind of 90% passing 75 µm was selected as the optimum grind
- Gold recoveries of over 95% and mass pulls of approximately 10.6% were achieved into a float concentrate of 37 g/t Au and 16% sulphur.
- The gold is associated with fast floating sulphides.
- A sulphur recovery of 74% was achieved.
- Direct cyanide leaching on the concentrate yielded 45%
- Nitric acid leaching on float concentrates resulted in an overall recovery of approximately 86% which is indicative of biological oxidation processing.

The flotation concentrates where then subjected to bio-oxidation amenability tests later in 2006. Excess foaming was evident due to high levels of talc in the ore. Talc cleaning was tests in a separate test programme by SGS. Talc content of 40% to 50% was successfully reduced down to 5% in the cleaners and to 2% in the recleaners. High overall gold recoveries of 95% and 94% respectively were still maintained even after the cleaning and recleaning steps.

Biological oxidation tests were then conducted on a cleaner and recleaner bulk flotation concentrates. The kinetics were slow as 93% sulphur oxidation was achieved after 21 days. It was suspected that a build-up of a toxic component (maybe As^{3+} arsenic) was inhibiting the bacteria. Nevertheless, high gold recoveries of 91% to 94% were achieved. Due to the difficulties with the biological oxidation, it was recommended that alternative oxidation methods also be investigated.

Maelgwyn conducted a testwork programme in 2014 to test alternative oxidation methods such as ultra-fine grinding and shear reactors on a sulphide concentrate sample from Manica. Maelgwyn achieved a recovery of 91% to 92% with a mass pull of 13.8% to 14.4% in the flotation step. The Maelgwyn samples

were of a much lower grade (2.08 g/t) than the tests conducted in 2006 (average 3.7 g/t) – this may have been a contributing factor to the lower recovery.

Ultra-fine grind and leach oxidation tests were conducted on the bulk float concentrate. The results can be summarised as follows:-

- CIL base case leaching (without ultra-fine grind) resulted in a gold recovery of 49%.
- Based on diagnostic leaching of the float concentrate, a recovery of approximately 87% could be achieved after sever oxidation and CIL processing.
- The Ultrafine Grind test work at 45micron, 22 micron and 14 micron returned the following results:-
    - At 45 µm, gold recovery of 59.2% was achieved;
    - At 22 µm, gold recovery of 66.1% was achieved; and
    - At 14 µm, gold recovery of 73.1% was achieved.
- Each of the UFG products were then run through Maelgwyn's Aachen reactor at 10 and 40 passes

  each:-

    - The 45 µm sample at 10 and 40 passes resulted in gold recoveries of 74.3% and 78.6% respectively;
    - At 22 µm sample at 10 and 40 passes resulted in gold recoveries of 77.8% and 80.8% respectively; and
    - At 14 µm sample at 10 and 40 passes resulted in gold recoveries of 81.4% and 82.7% respectively.
- It was concluded that a recovery of approximately 82% could be achieved at 20 passes which would result in an overall recovery (after a float recovery of 91%) of approximately 75%.
- Furthermore, diagnostic leach tests on the float tailings at a gold grade of 0.36 g/t indicated that approximately 55.6% of the gold is expected to be recoverable via carbon in leach processing.

The remaining diamond drill core from Fair Bride sulphide zones was tested at Nagrom Laboratories in Australia. Minxcon have not reviewed Nagrom's report. The objective of the programme was to:-

- Produce high grade float concentrate samples to determine the viability of selling the concentrate.
- Confirm and expand on the earlier flotation and gravity pre-concentrating testing of 2006.

Overall flotation recoveries were lower than testwork programmes which were attributed to partial oxidation of the sulphides. The following results were achieved:-

- Rougher float tests resulted in recoveries of 91.4% to 94.0% (average 93%) with mass pulls of 9.1% to 13.2% (average 11.1%).
- The talc in the rougher concentrates averaged at about 14% with sigher cleaner flotation reducing the talc content to below 9% at a cleaner stage recovery of 94%.

- A sample was milled and screened at 200 µm. Each fraction was separately concentrated over a Wilfley table with its tails subjected to cyanidation:-
    - +200 µm fraction: gold recovery of 29.1%;
    - -200 µm fraction: gold recovery of 41.2%; and
    - Gold recovery to float concentrate 26.3% resulting in an overall recovery of 96.5%.
- Gravity tests over a shaking table was conducted on a 500 µm sample. Tails from the table was milled to 75 µm and floated with the concentrate then subjected to a bottle roll testleached.
    - Gravity recovery of 50% and 73% was achieved at mass pulls of 3% and 107% respectively.
    - Float recovery of 88% was achieved.
    - Leach recovery on the float concentrate of 48% was achieved confirming previous work indicating that the gold is locked in sulphides and will require oxidation processes.

III. TRANSITIONAL ORES

In 2013 SGS conducted testwork on composite transitional samples. The tests indicated that the addition of an activator in the mill and sulphurdising agent (sodium sulphide) prior to flotation is required to enhanced recoveries. Similar talc depressing reagents were used as before to ensure the talc content remained low.

Gold and sulphide sulphur recoveries of 80% and 97% respectively were achieved into the float concentrate. High mass pulls of approximately 26% were achieved due to the high concentration of talc and the high sulphur recovery.

The bulk float concentrate was submitted for ultra-fine grinding to reduce it to 80% passing 27 µm. The following recoveries were achieved:-

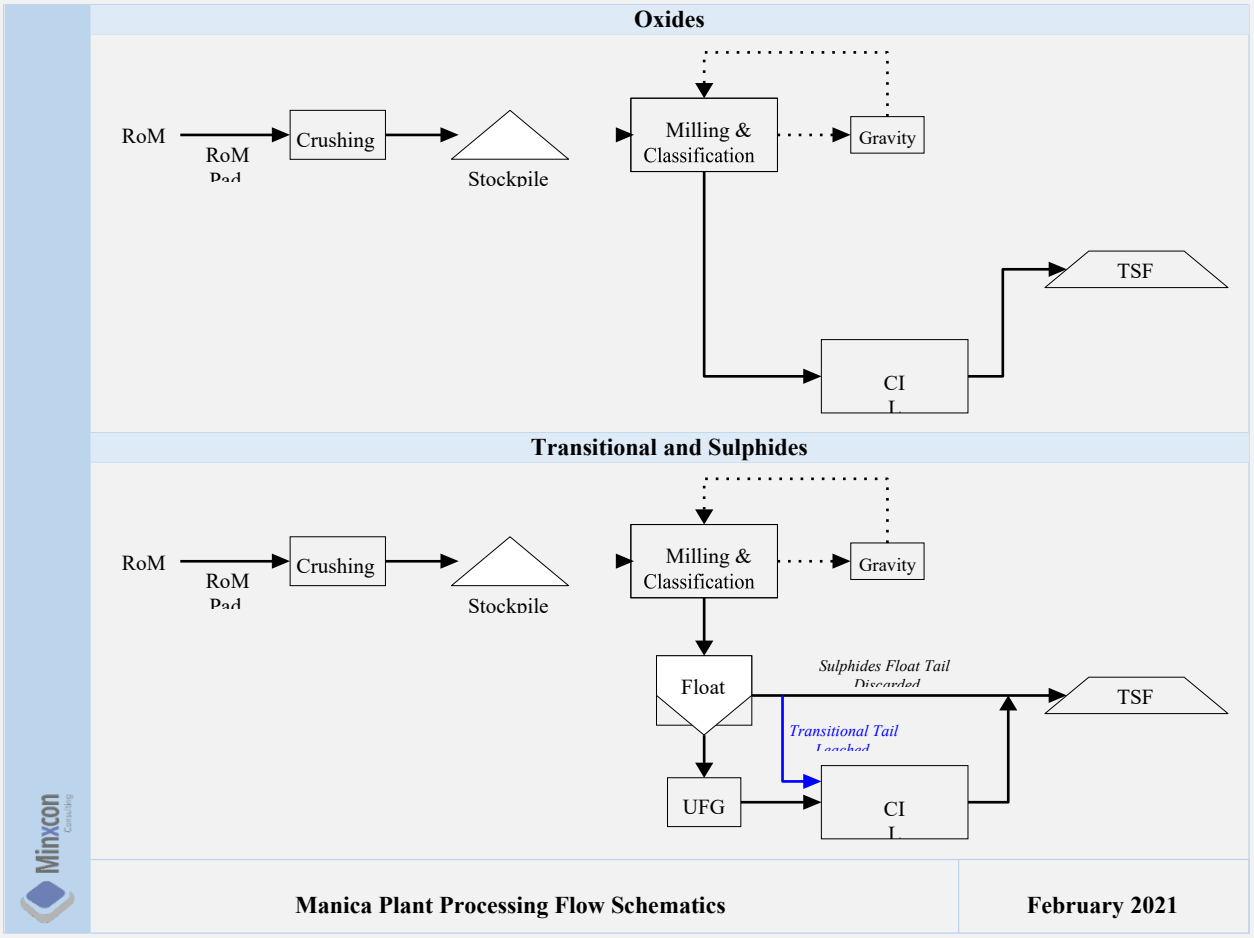
- 81% passing 45 µm: 53%;
- 80% passing 31 µm: 81%; and
- 79% passing 27 µm: 85%.

It is anticipated that at a grind of -14 µm with the inclusion of shear reactors could result in a recovery of 90%. Leaching recoveries of about 55% were achieved on the float tails. Cyanide and lime consumptions averaged at 6.4 kg/t and 4.2 kg/t.

Referring to Figure 23, the recovery circuits could be operated as follows:-

- Oxides will be leached directly after being milling;
- The transitional ore will be floated with the concentrate milled to -14 µm then leached together with the float tails; and
- The sulphides will be floated with the concentrate milled to -14 µm then leached alone with the float tails discarded.

Figure 23: Plant Processing Flow Schematics



The following flotation and leaching recovery assumptions were applied:-

- Oxide Leaching:-
  - Recoveries of 84% to 95% were achieved on 12 oxide samples in 2010. A single test conducted in 2013 by SGS resulted in a recovery of 97% using air sparging. Since the 2010 work was conducted on low grade samples, a recovery (closer to the 2013 results) of 95% was selected for oxide leaching.
- Flotation on Sulphide and Transitional Material:-
  - A recovery of 80% was selected based on the 2013 SGS testwork with the use of a sulphurdising agent.
  - Assumed flotation recoveries on sulphides are based on the Early SGS work (prior to 2010), the 2014 Maelgwyn testwork and the 2015 Nagrom testwork. Recoveries varied from approximately 91% to 98% for samples with grades over 1 g/t. An average recovery of 94% was selected.

- Ultra-fine Grind and Leaching:-

- Fine grinding of transitional float concentrate to 27 µm yielded a leach recovery of up to 85%. It is anticipated that at a grind of -14 µm with the inclusion of shear reactors could result in a recovery of 90%. This recovery needs to be verified through testwork

    - A leach recovery of 82% on sulphide float concentrates after fine grinding to -14 µm was selected based on the Maelgwyn testwork.

- Float Tails Leaching:-

    - A recovery of 55% was selected based on leaching of transitional float tails conducted by SGS in 2013.
    - It is envisaged that the sulphide float tails will not be leached.

- Float Mass Pulls:-

    - In 2013, SGS achieved a mass pull of 26% due to the high talc and sulphur recoveries. It is expected that with the depression of the talc, mass pulls will reduce to 10% to 20% similar to the sulphide tests.
    - The sulphide rougher and cleaner float tests where talc depression was successful achieved mass pulls of 4% to 23% at an average of 12%.
    - A float mass pull of 15% was selected for both transitional and sulphides.

A summary of the recoveries and mass pulls used are respectively shown in Table 13 and Table 14.

Table 13: Summary of DFS Metallurgical Recoveries

Material	Gravity Recovery	Float Recovery	CIL Recovery on Concentrate	CIL Recovery of Float Tails	CIL Recovery of Oxide RoM	Overall Recovery
	%	%	%	%	%	%
Oxides	Not included				95.0%	**95.0%**
Transitional	Not included	80.0%	85.0%	56.0%		**79.2%**
Sulphides	Not included	94.0%	82.0%			**77.1%**

Table 14: Flotation Mass Pulls

Material	Float Mass Pull
	%
Oxides	n/a
Transitional	15.0%
Sulphides	15.0%

Metallurgical tests were done one drill core samples, which are the most representative available at this stage of the project. The grade of the samples are slightly higher than the average Measured and Indicated Mineral Resource grade 1.78 g/t, but the behaviour in the recovery circuit is expected to follow that of the testwork.

The high talc content (in the form of $Mg_3Si_4O_{10}(OH)_2$) is of concern and could negatively affect flotation and/or downstream leaching processes. Successful talc float depression tests were conducted by SGS in 2006. SGS were able to reduce the talc from approximately 50% to 5% and 2% after cleaning and recleaning respectively with the gold recoveries remaining high (>94%).

(9) Mineral Resource Estimates

Mineral Resources were estimated by Minxcon in 2016. Since the publication of those results, no further exploration or development work has occurred at Fair Bride. As no new data is available for incorporation into the Mineral Resource estimation, the 2016 estimation remains valid and has been updated to 1 February 2021 to account for current gold pricing, mining and processing costs, and currency exchange rates in the review of the reasonable prospects of eventual economic extraction.

I. MINERAL RESOURCE ESTIMATION PROCEDURES

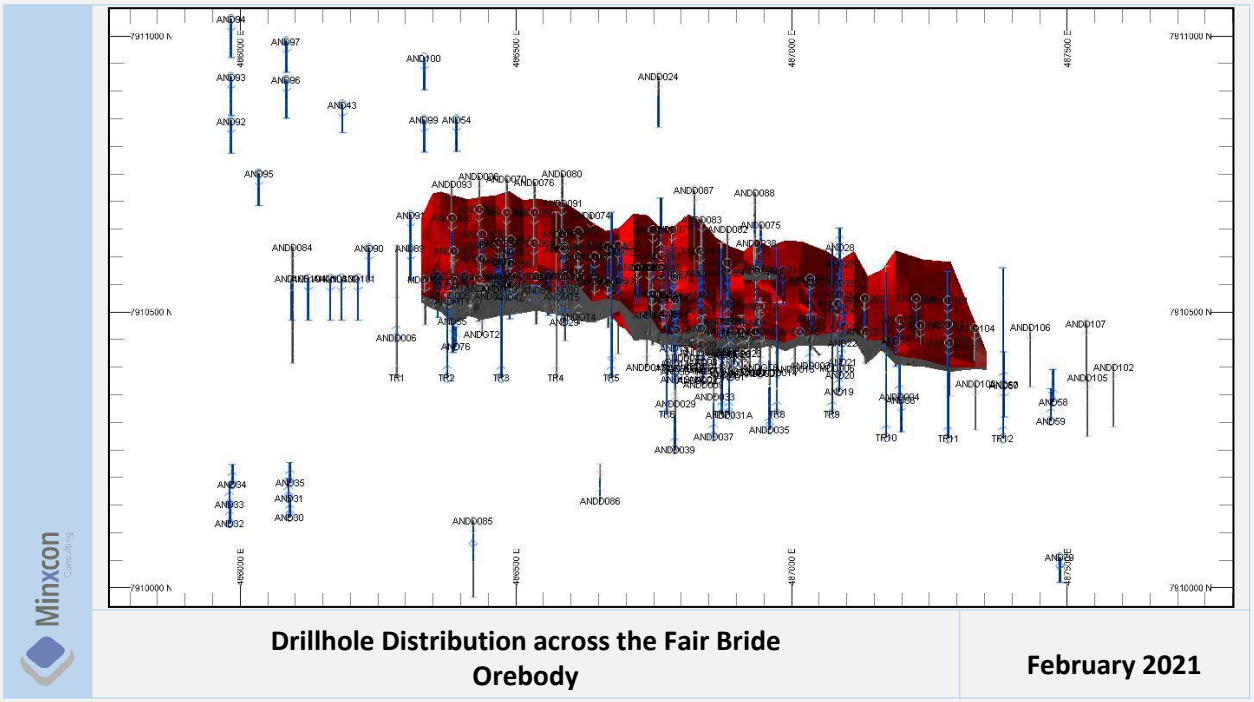
i. Database Compilation

The database supplied by Xtract included historic diamond drilling, RC holes and trench sampling. The drillhole spacing was found to be approximately at a 25 m spacing across the ore body. The number of holes and the number of holes utilised in the Mineral Resource estimation is listed in Table 15. From this set of drillholes only 94 diamond drillholes and 43 RC drillholes were used in the estimation. The trench sampling was excluded from the evaluation as there was concern with respect to the QAQC of these samples due to possible mixing of samples and poor standard performance, perceived poor reliability. The exclusion of the 123 trench samples from the total of 6,887 samples are viewed as being minimal and are considered to not have an adverse effect on the estimation. In Table 15 it shows that from a total of 229 drillholes only 137 were used for the evaluation, as these were the only holes falling within the mineralised envelope. In Figure 24 the distribution of drillholes around the Fair Bride orebody can be seen.

Table 15: Drillholes for the Fair Bride Deposit

Drillhole Type	Total	Total Estimation
Diamond	116	94
RC	113	43
Trench	12	0

Figure 24: Drillhole Distribution across the Fair Bride Orebody



QAQC was performed by CSA (Muir, 2014) and the results and report are tabled in the Technical Report by Auroch Minerals 2014. The results were reviewed by Minxcon in 2016 and the recommendations with regards the estimation were observed and implemented. These included the exclusion of the trench sampling from the estimation due to possible mixing of samples and poor standard performance.

ii. Geological Modelling

Estimation of the block model utilised Ordinary Kriging to estimate the Mineral Resource. Only samples falling within the ore boundary wireframe were used for the estimation, and a capping regime was used where sample values exceeding 20 g/t over a 1 m composite were capped at 20 g/t. Soft boundaries were included to estimate the oxide zone where data points were included from the transitional zone to inform the oxide zone. A variogram range of 198 m in the long range and 149 m in the short range was used. The variogram was constrained in the Y range to 11 m to prevent overestimation across the width of the mineralised zone. The final block estimate utilises a 5 m X 5 m X 5 m block size with sub cell splitting.

iii. Statistical Analysis

The data used for the statistics and later estimation only includes samples from within the ore boundary wireframe. Where sample intervals were included but not sampled, these sample intervals were assigned a trace value (0.01 g/t). Where samples were captured as core loss these samples were marked as absent. The basic statistics indicated a mean value of 0.39 g/t and a histogram distribution to be log-normal for the Au values (Figure 26). The statistics for the length of the samples indicated that the mean value for these was 1.15 m with a geometric mean of 0.96 m (Figure 25).

Figure 25: Length Histogram of Uncomposited Data falling within the Mineralised Zone

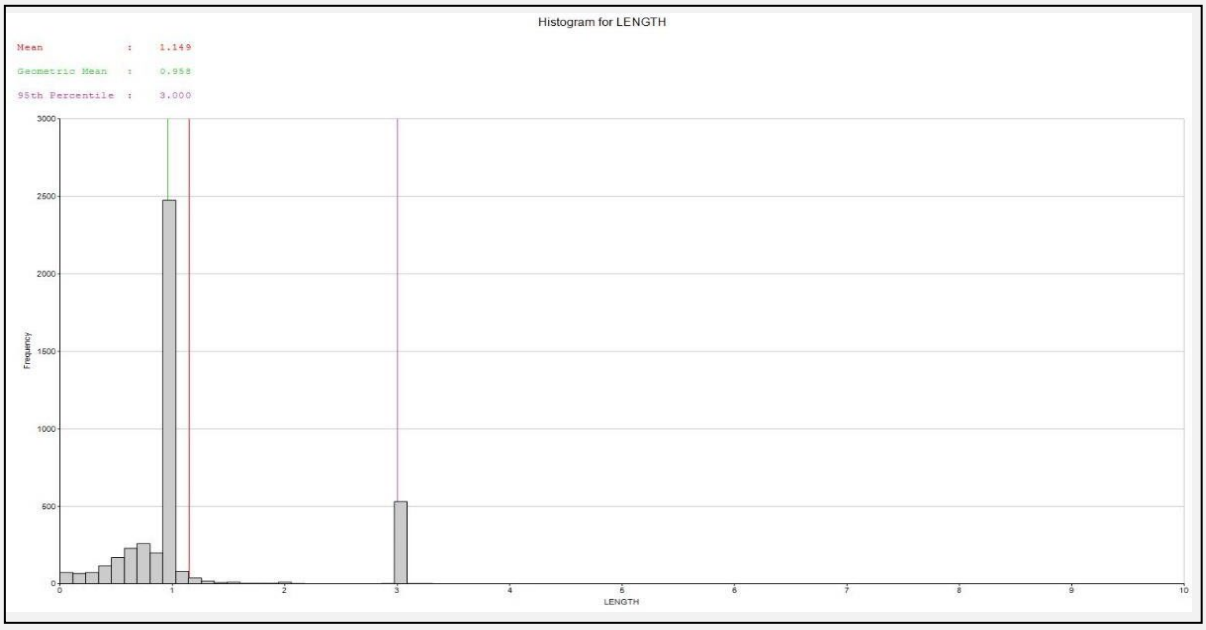
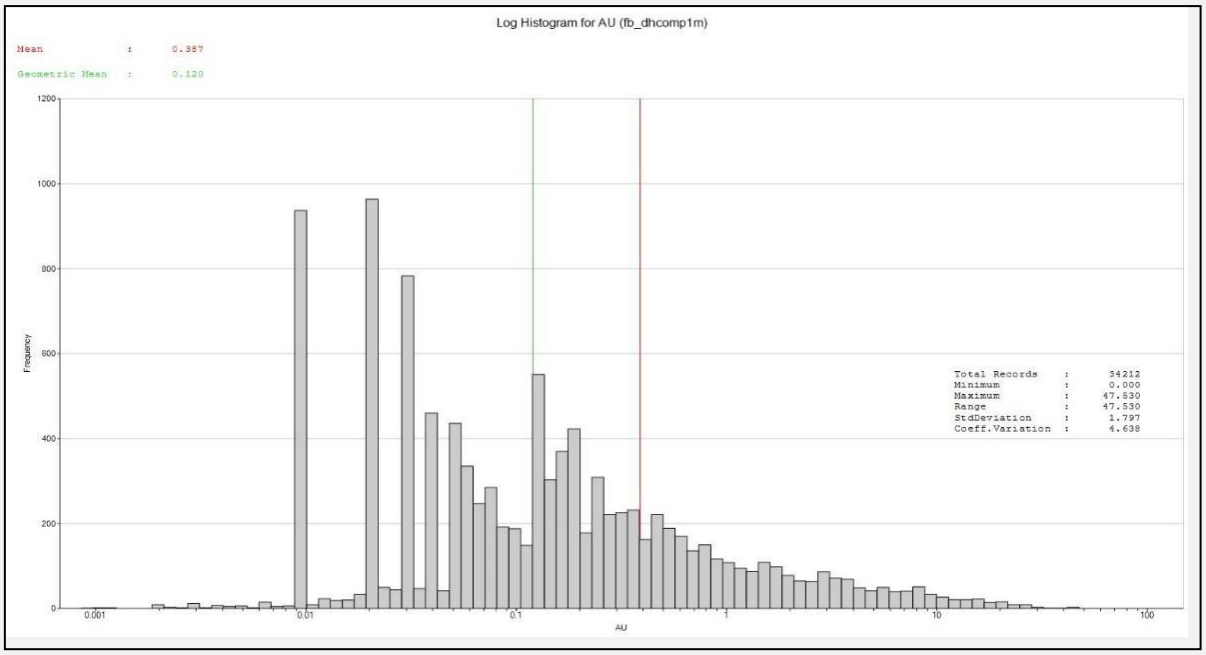


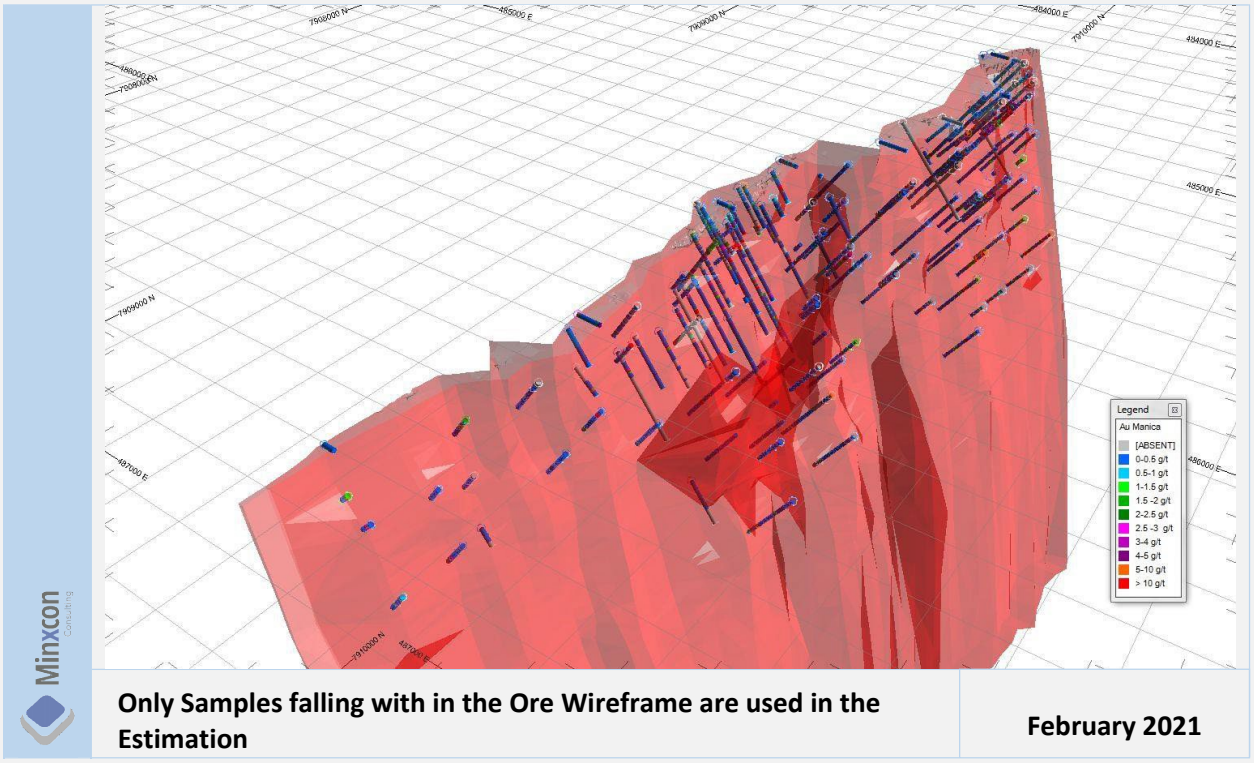
Figure 26: Log Histogram of Au g/t, 1 m Composited Data falling within the Mineralised Zone



iv. Domaining

The samples used for the estimation were restricted to only samples falling with in the Fair Bride orebody wireframe (Figure 27).

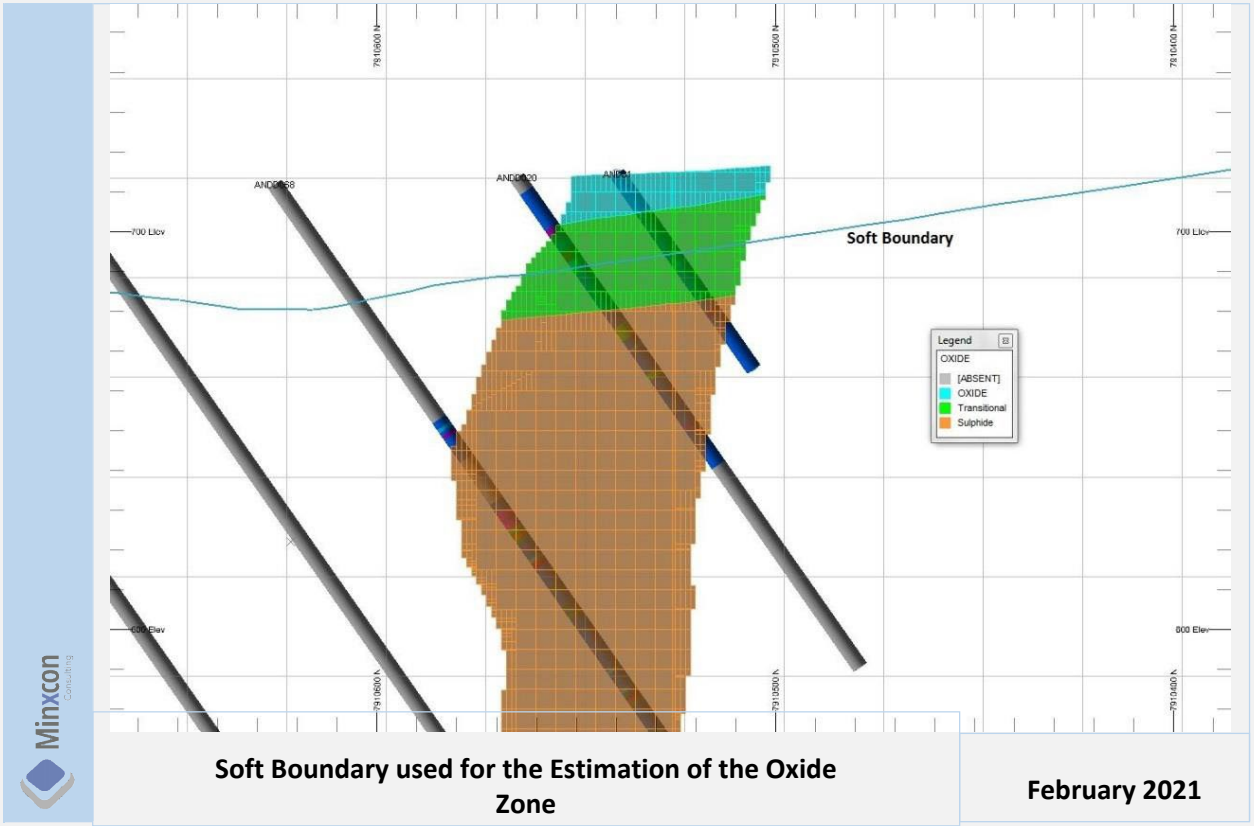
Figure 27: Only Samples falling with in the Ore Wireframe are used in the Estimation



Three weathering domains were logged in the drilling and wireframes were created to separate these domains. The weathering domains were defined as Oxide, Transitional and Sulphide, where the sulphide zone showed no weathering and the oxide zone had a high level of weathering, with the transitional exhibiting gradational weathering between the two extremes.

The oxidised zone estimation was restricted to samples within the oxidised zone and samples falling midway into the transitional zone due to the gradational nature of the contact, resulting in a soft boundary estimate. The transitional zone was defined in the drilling and has a global average thickness of approximately 23 m resulting in a soft boundary limit of 11.5 m for the oxide zone. The sulphide and transition zones were estimated as a unit due the soft boundary between the zones. In Figure 28 the boundaries are defined by the drillhole logs for the oxide, transitional and sulphide are depicted as blue, green and brown. The soft boundary for data selection is defined as the blue line midway between the oxide and the sulphide zones. All samples for the transitional and sulphide zones were used for the estimation for the transitional zone and the sulphide zones respectively.

Figure 28: Soft Boundary used for the Estimation of the Oxide Zone



v. Data Conditioning (Compositing and Capping)

Capping statistics was conducted on the data falling within the mineralised ore zone and a range of 0.001 to 47.53 g/t was observed. From the cumulative coefficient of variation plot a discontinuity was seen to exist at 20 g/t (Figure 29). This was viewed as being the upper limit of the data set and falls into the 99th percentile and accounts for only eight samples points of the total (Figure 30).

Figure 29: Grade Capping was Selected at 20 g/t to Remove the Top End Tail of the Distribution

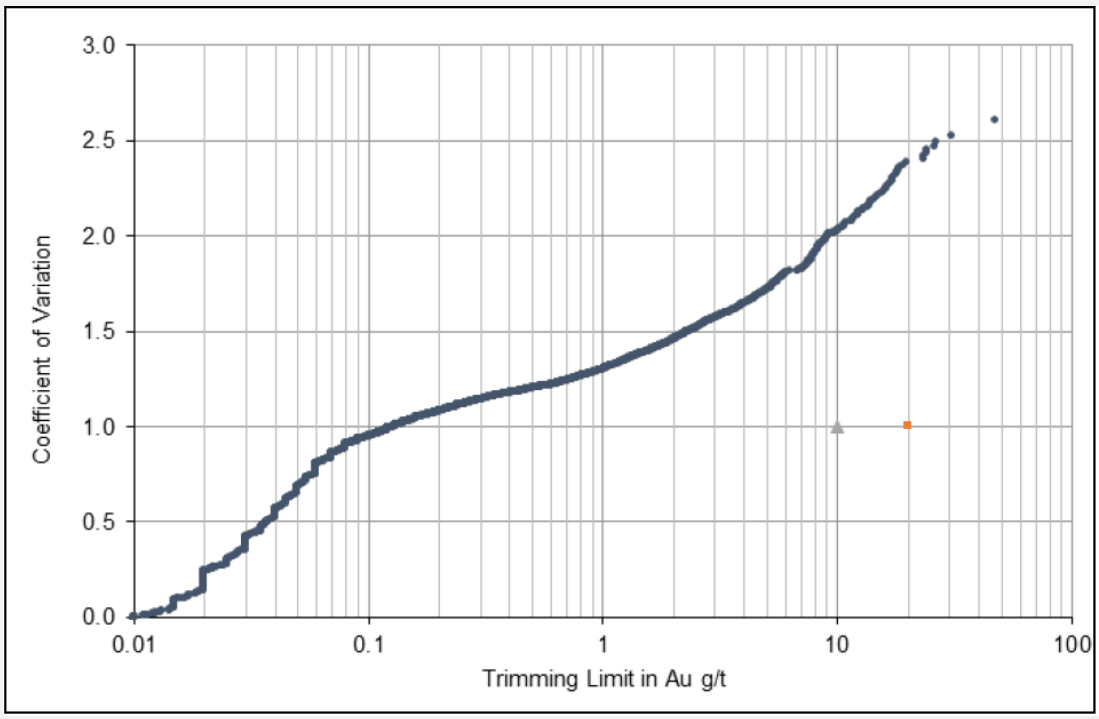


Figure 30: Grade Capping at 20 g/t Falls into the Top 99% of the Distribution

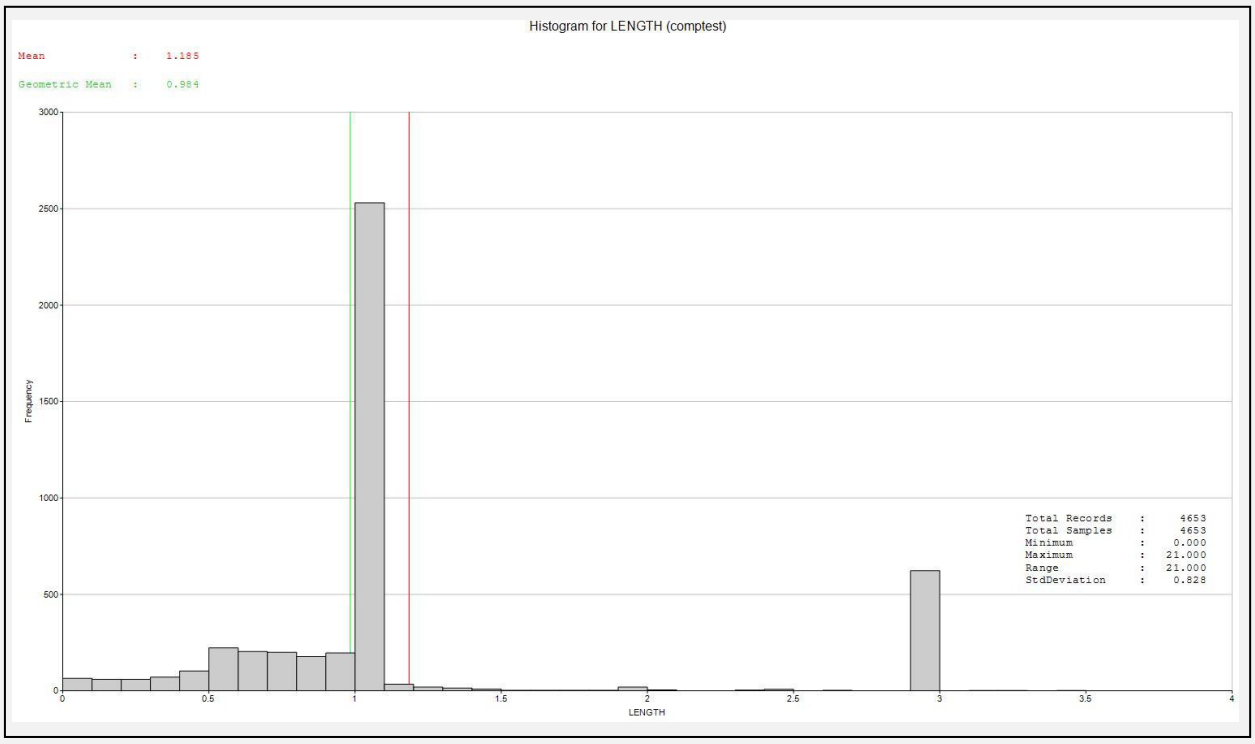
Target	% Quantile From	% Quantile To	No. of Samples	Mean Grade	Minimum Grade	Maximum Grade	Metal Content	% Metal
Au	0	10	1,015	0.00	0.00	0.00	0	0
Au	10	20	1,015	0.00	0.00	0.00	0	0
Au	20	30	1,015	0.00	0.00	0.00	0	0
Au	30	40	1,016	0.00	0.00	0.00	0	0
Au	40	50	1,015	0.01	0.00	0.02	10	0
Au	50	60	1,015	0.03	0.02	0.05	30	1
Au	60	70	1,016	0.07	0.05	0.09	67	2
Au	70	80	1,015	0.14	0.09	0.20	140	4
Au	80	90	1,015	0.35	0.20	0.62	355	9
Au	90	100	1,016	3.31	0.62	47.44	3,358	85
Au	90	91	101	0.68	0.62	0.74	68	2
Au	91	92	102	0.81	0.74	0.90	83	2
Au	92	93	101	1.00	0.90	1.11	101	3
Au	93	94	102	1.25	1.11	1.38	128	3
Au	94	95	102	1.58	1.38	1.78	161	4
Au	95	96	101	2.02	1.78	2.27	204	5
Au	96	97	102	2.64	2.27	3.05	269	7
Au	97	98	101	3.74	3.07	4.48	378	10
Au	98	99	102	6.01	4.48	8.02	613	15
Au	99	100	102	13.27	8.02	47.53	1,354	34
Au	0	100	10,153	0.39	0.00	47.53	3,961	100

vi. Data Compositing

An analysis of the sample lengths for the drilling falling within the mineralised zone that had been sampled was conducted, and a mean value of 1.18 m with a geometric mean of 0.99 m was observed (Figure 31).

The compositing interval utilised for the estimation was thus selected to be at a 1 m interval. In Figure 31 below the 3 m samples represent the 3 m composited samples used from the RC drilling.

Figure 31: Drillhole Sampling Length Histogram; 1 m Composites were Selected



vii. Geostatistical Analysis and Variography

Variography was conducted on the 1 m samples and a 3 structure variogram was produced. This variogram presented a range of 198 m, 146 m and 11 m in the x, y and z axis directions respectively. The variogram also showed an anisotropic behaviour. The direction, ranges and parameters of the variogram are presented in Table 16. In Figure 32 the Search Ellipse for the estimate is represented as a wireframe, this shows the long Axis of 198 m and Short Axis of 146 m with a Z thickness of 11 m in the orientation of the estimation parameters. The experimental variogram and the modelled variogram are shown in Figure 33 along with the variogram parameters.

Table 16: Structure Variogram Parameters

Parameter	Range 1	Range 2	Range 3	VANGLE1	VANGLE2	VANGLE3	Nugget	Sill	Nugget:Sill %	Total Variance
Vgram AU	11 m	146 m	198 m	32	63	55	0.465	4.189	11%	4.654

Figure 32: Search Volume and Variogram Ranges shown in Plan View, North South View and East West View

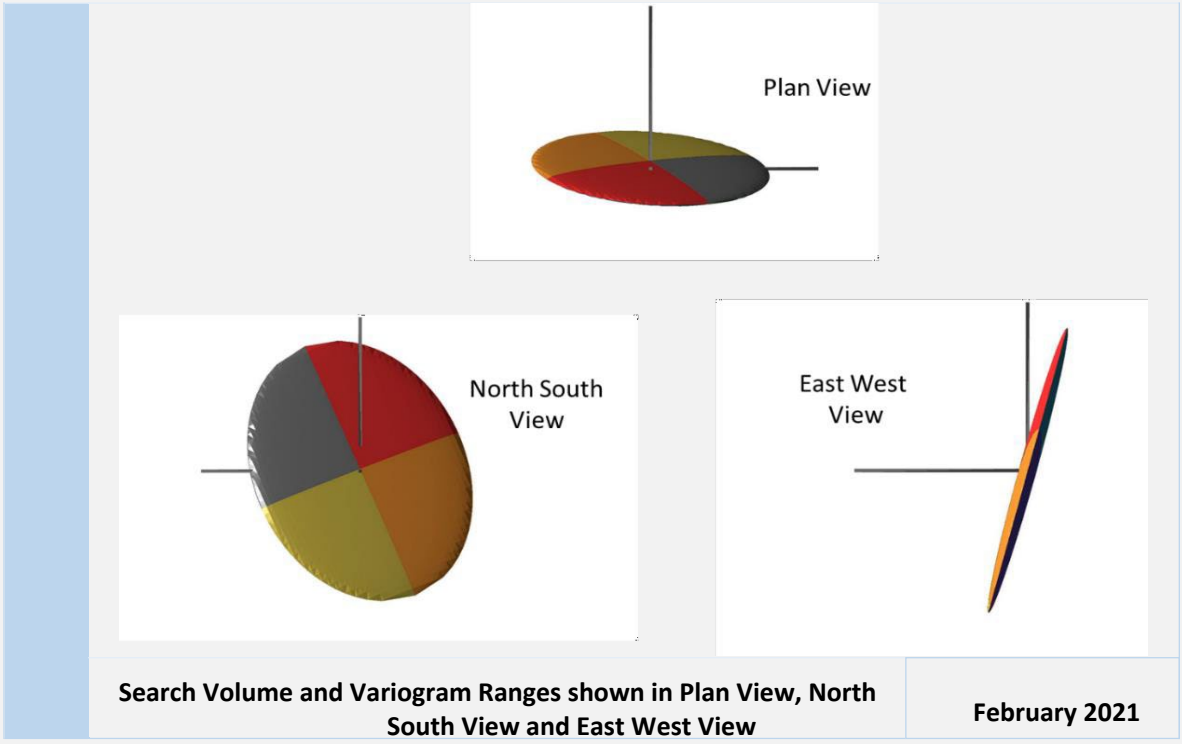
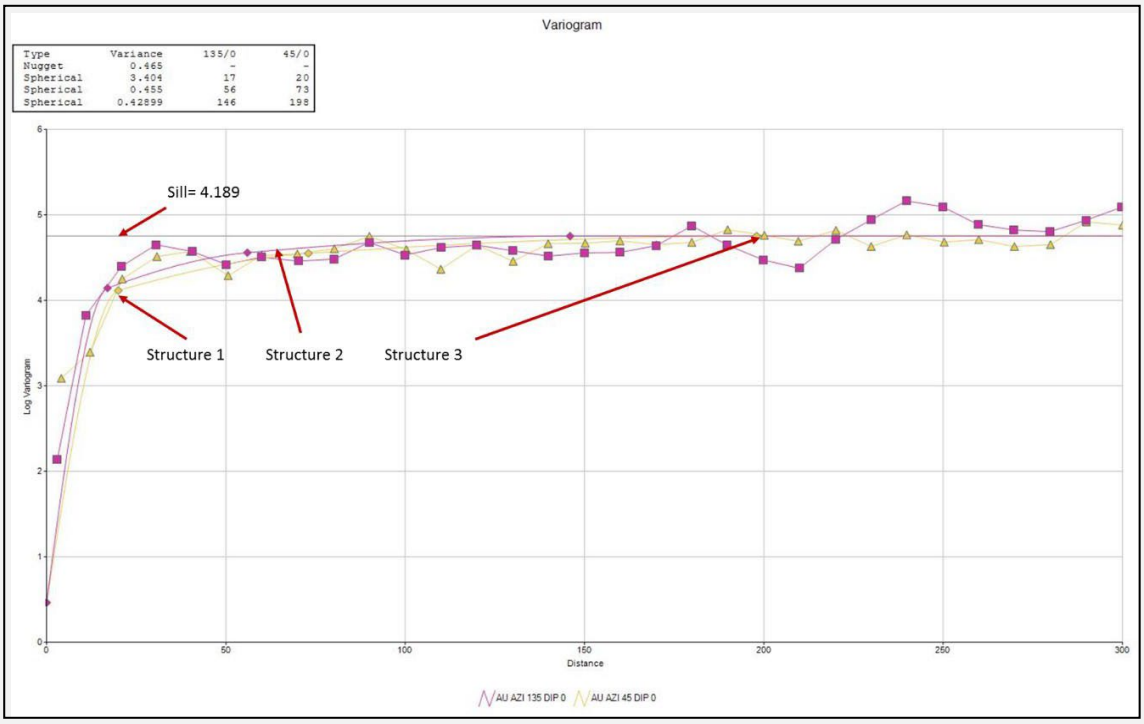


Figure 33: Variogram Model and Parameters used in the Estimation



viii. Block Model Creation and Grade Interpolation

The orebody wireframe was filled with cells of dimensions: 5 m X 5 m X 5 m with sub cell splitting. The cell size was selected due to the smallest mining unit ("SMU") size and the kriging efficiency. A cell size of 15 m X 5 m X 15 m produced a better kriging efficiency yet the degrees on efficiency did not significantly change with the change in the block size, therefore for later reserving purposes the 5 m X 5 m X 5 m cell size was selected.

A number of estimations were conducted, including ordinary kriging, inverse distance and nearest neighbour. Ordinary kriging was selected as the preferred estimation method as a robust variogram could be generated and the kriging efficiency was observed as being satisfactory to ensure a robust estimation. Estimation was done on the parent cells and these values were assigned to the relevant sub cells.

In Figure 34 the total resource model (in g/t) is shown with the high grade area to the west of the orebody. A section (Figure 35) through the resource model shows how the estimation is honouring the narrow zones of mineralization. In the horizontal section of elevation 500 m (Figure 36) the western high grade is clearly seen as compared to the eastern limb of the orebody.

Figure 34: Total Resource Model (in g/t) of Fair Bride showing the Higher Grade Area (Looking Southwest)

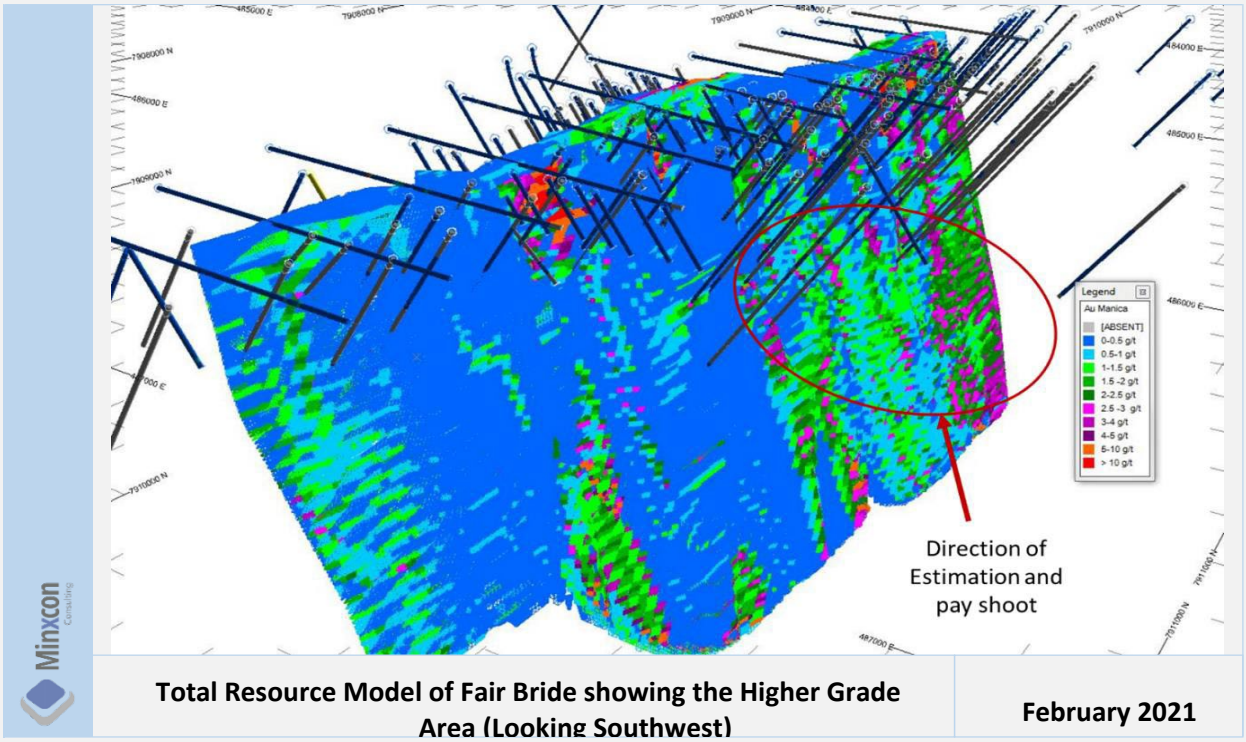


Figure 35: Section 486955 of the Resource Model showing Grade Distribution (g/t)

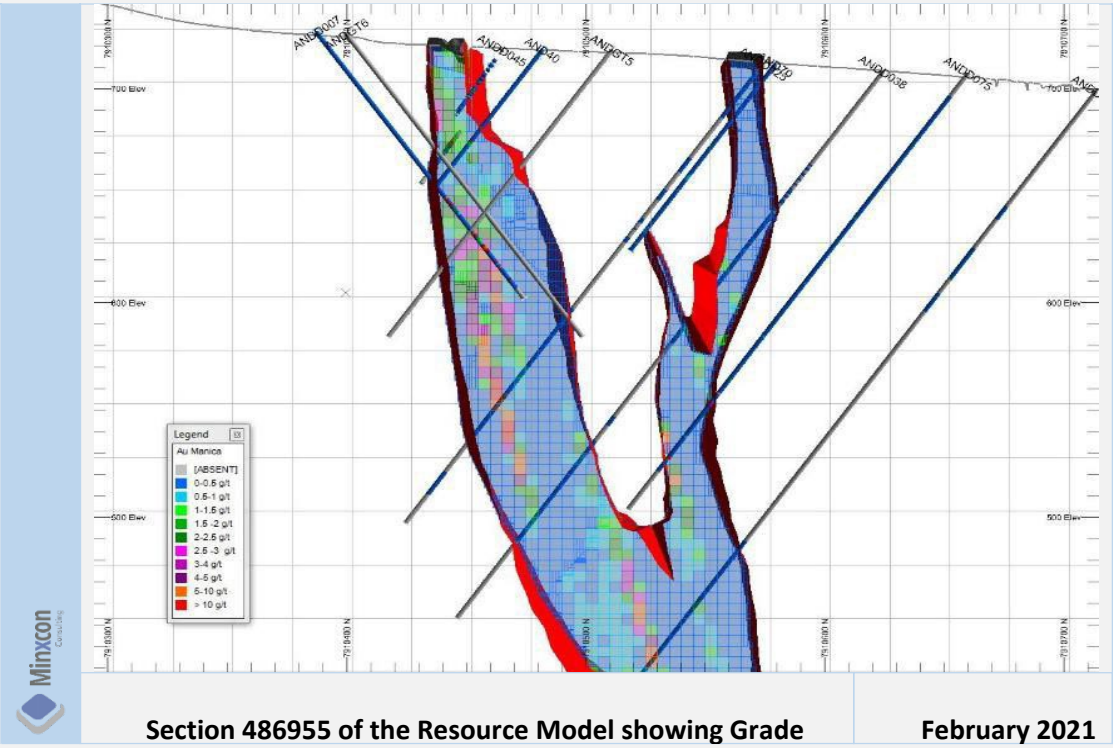
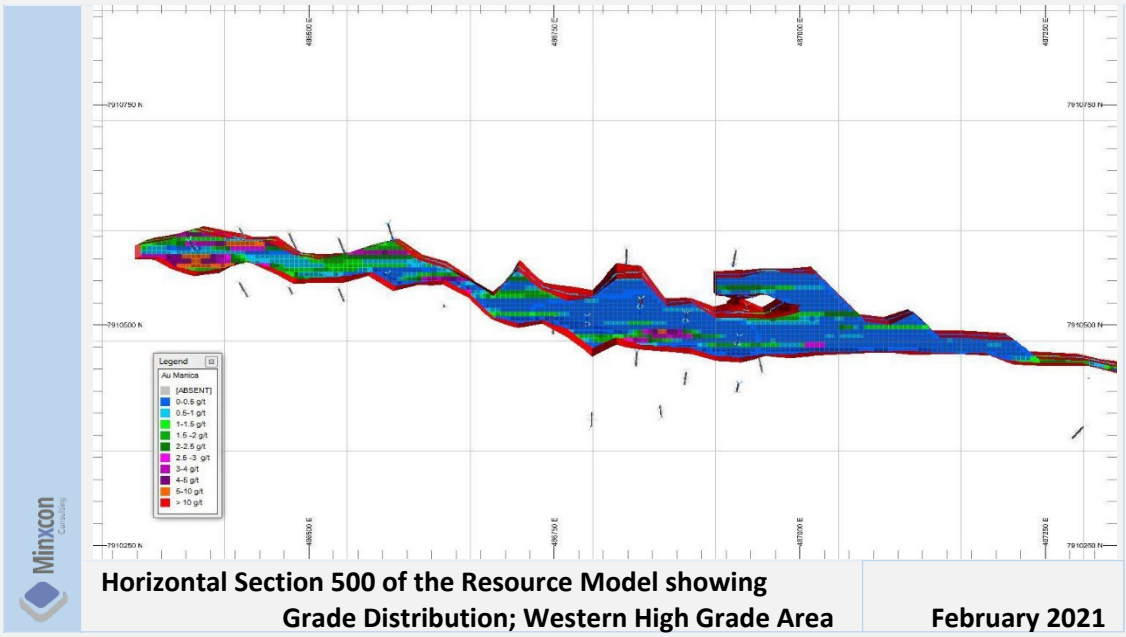


Figure 36: Horizontal Section 500 of the Resource Model showing Grade Distribution; Western High Grade Area is Clearly Visible



ix. Bulk Density

Extensive density analysis was conducted by CSA and results may be viewed in the appendix of the Auroch report. Most of the density determinations were conducted using the Archimedes/displacement principle on lengths of dry core (whole or half) between 15 cm and 30 cm in length. Where the core was weathered or porous samples were sealed with wax to ensure that the measurements reflect dry densities. It is the author's opinion that the densities assigned to the zones would be applicable to this study and were therefore used as such. The density assignment for the different zones were as follows:-

- Oxide Zone: 2.57 kg/m^3,
- Transitional Zone: 2.68 kg/m^3; and
- Sulphide Zone: 2.79 kg/m^3.

These values were then assigned to the block model to determine the bulk dry tonnages for the block model.

x. Block Model Validation

Swath plots across the orebody from east to west (Figure 37) as well as sections (Figure 38) at different elevations through the orebody were generated in order to compare the estimated values to the original assay values. These indicated a good correlation with regards the estimation and the raw assay values. Visual cross section of the drilling and resource block model was done to ensure the estimation honoured the drillhole sampling.

This was viewed as presenting acceptable variation making the estimation acceptable for the type of deposit and the sample spacing encountered in the deposit. It is apparent however that the estimate consistently slightly under-evaluates orebody due to the smoothing effect of the kriging estimate.

Figure 37: Swath Plot West to East across the Fair Bride Orebody Estimate

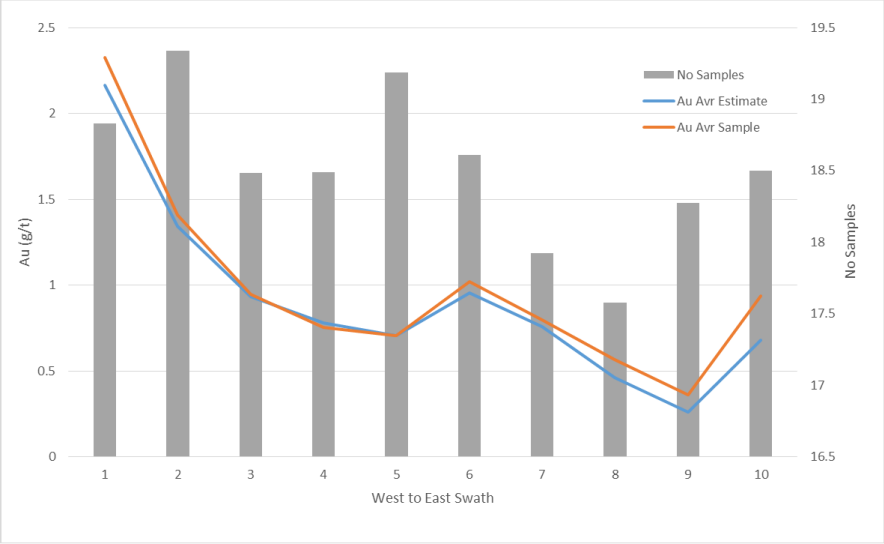
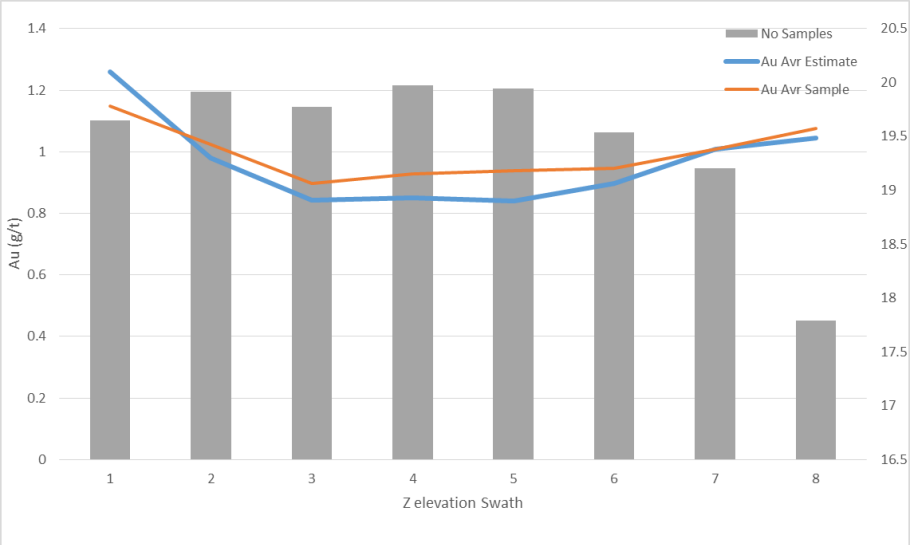


Figure 38: Swath Plot from Surface to Depth for the Fair Bride Orebody Estimate, Swath is 50 m in Width



II. MINERAL RESOURCE CLASSIFICATION

Classification for the estimation was based on the following criteria (Table 17):-

- kriging efficiency;
- number of samples; and
- search range of the variogram

Table 17: Classification Criteria

Item	Mineral Resource Category		
	Measured	Indicated	Inferred
Kriging Efficiency	>0.5	>0.3	<0.3
Minimum No Samples	20	10	10
Search Radii	1	1	2

Where the criteria were met the model was flagged and coded. The coding was then used to inform a classification halo wireframe that was created to ensure that no erroneous blocks were classified as Measured, although they may have satisfied the coding criteria in Table 17. These wireframes in Figure 39 were then used as the final classification of the Fair Bride Mineral Resource estimation block model. Any resource block that falls within the Measured wireframe was classified as Measured and blocks falling outside of the Measured but within the Indicated wireframe is classified as Indicated. Resource blocks falling outside of these classification wireframes are classed as Inferred. The Inferred Resources was stopped at twice the search radii and any Mineral Resource estimation beyond this was unclassified. The

final classification model is shown in Figure 40. This classification criteria extends the resource model to a depth of approximately the 200 m amsl elevation, which is approximately 530 m below surface.

A minimum of at least two drillholes per estimation was incorporated in the estimation to prevent a single drillhole having undue weight on the estimation.

Figure 39: Measured and Indicated Wireframes based on the Classification Criteria

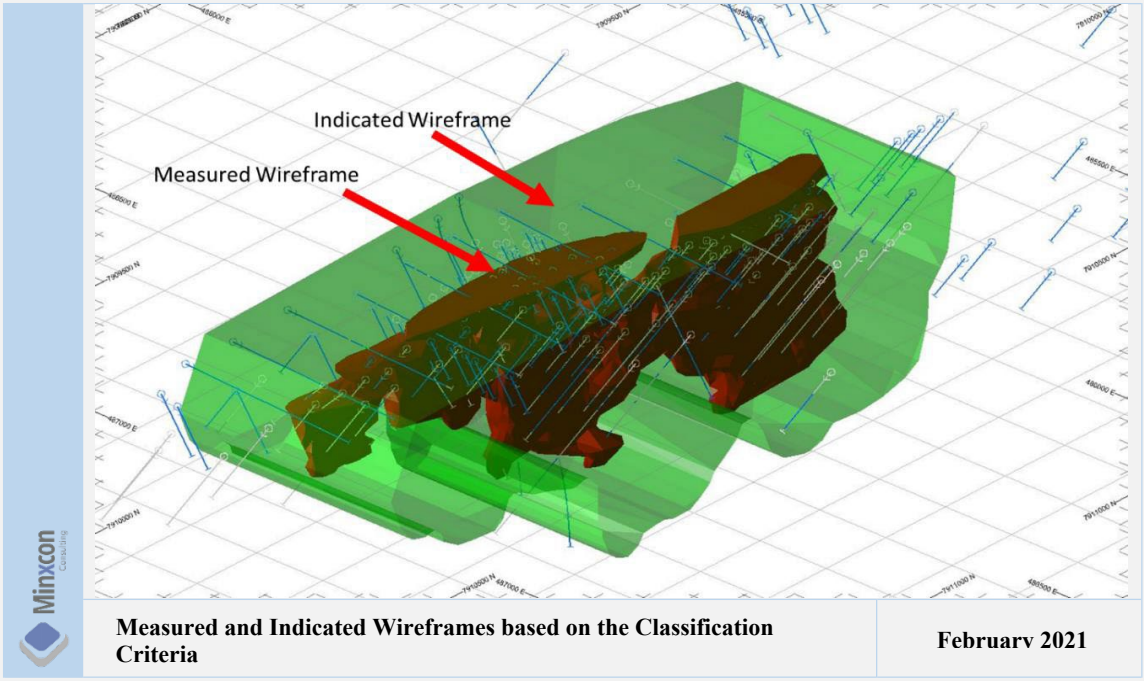
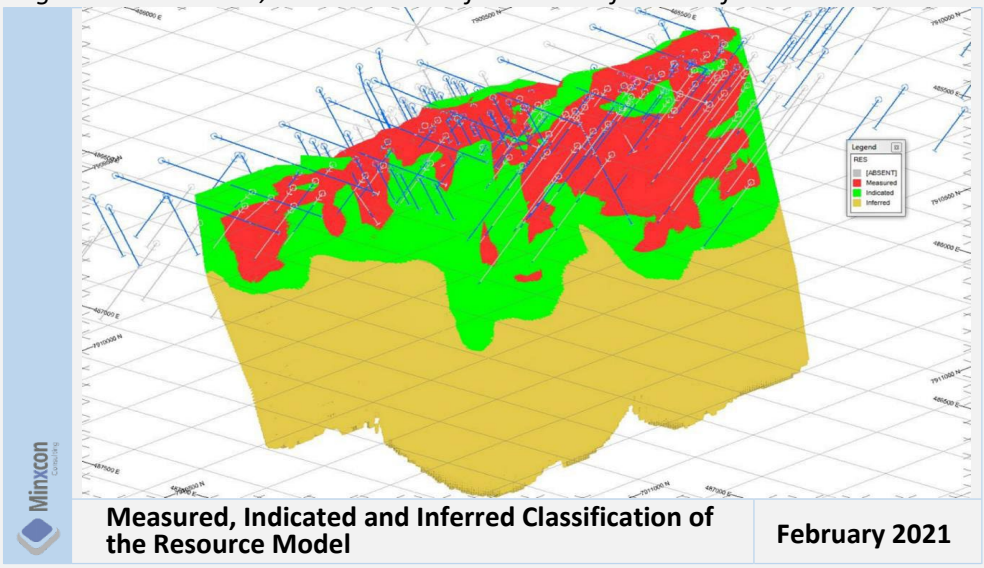


Figure 40: Measured, Indicated and Inferred Classification of the Resource Model



The above classification criteria have taken into consideration the accuracy of the tonnage by means of the lithological wireframes (volume) and the density for the various zones (oxide, transition and sulphide). The quality of the data is deemed to be sufficient based on the QAQC procedures incorporated into the exploration programme and finally the confidence of the estimation by considering the kriging efficiencies of the model. The continuity of the orebody is based on the Inferred Mineral Resource being based on twice the semi variogram range, which is an acceptable practice, and this type of orebody is known to have depth extension.

I. MINERAL RESOURCE STATEMENT

All Mineral Resources have been categorised and reported in compliance with the definitions embodied by CIM and have been utilised in this Report on the reporting of Mineral Resources and Mineral Reserves. Mineral Resources have been reported separately in the Measured, Indicated and Inferred Mineral Resource categories. Inferred Mineral Resources have been reported separately and have not been incorporated with the Measured and Indicated Mineral Resources. Inferred Mineral Resources have a low level of confidence and while it would be reasonable to expect that the majority of Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration, due to the uncertainty of Inferred Mineral Resources, it should not be assumed that such upgrading will occur.

The Mineral Resource for Fair Bride for 2021 is tabled below in Table 18 to Table 20. The Mineral Resource is based on a total resource stated at a cut-off of 0.5 g/t. The Mineral Resources are further sub-divided into a Surface Minable Mineral Resource and an Underground Mineable Mineral Resource. Two cut-offs were used for this classification. The results provided below appropriately reflect the Qualified Person's view of the Fair Bride orebody.

Table 18: Total Mineral Resource for Fair Bride at 0.5 g/t Cut-off as at 1 February 2021

Mineral Resource Category	Tonnes	Gold Grade	Gold Content	
	Mt	g/t	kg	koz
Measured	9.764	1.86	18,163	584.0
Indicated	4.239	1.59	6,757	217.2
Total M&I	**14.003**	**1.78**	**24,920**	**801.2**
Inferred	12.930	1.65	21,313	685.2

Notes:

1. Mineral Resources are declared at indicated cut-offs.
2. No geological losses are accounted for.
3. A gold price of USD1,650/oz was used for the cut-offs.
4. Mineral Resources are inclusive of Mineral Reserves (no Mineral Reserves declared).
5. Mineral Resources are reported as 100% attributable.

Table 19: Open Cut Mineral Resource at 0.5 g/t Cut-off and Final Depth of 280 m Below Surface as at February 1, 2021

Mineral Resource Category	Tonnes	Gold Grade	Gold Content	
	Mt	g/t	kg	koz
Measured	9.750	1.86	18,130	582.9
Indicated	3.310	1.62	5,368	172.6
Total M&I	**13.060**	**1.80**	**23,498**	**755.5**
Inferred	0.894	1.17	1,049	33.7

Notes:

1. Mineral Resources are declared at indicated cut-offs.
2. No geological losses are accounted for.
3. A gold price of USD1,650/oz was used for the cut-offs.
4. Mineral Resources are inclusive of Mineral Reserves (no Mineral Reserves declared).
5. Mineral Resources are reported as 100% attributable.

Table 20: Underground Mineral Resource at 1.5 g/t Cut-off and Depth from 280 m Below Surface as at 1 February 2021

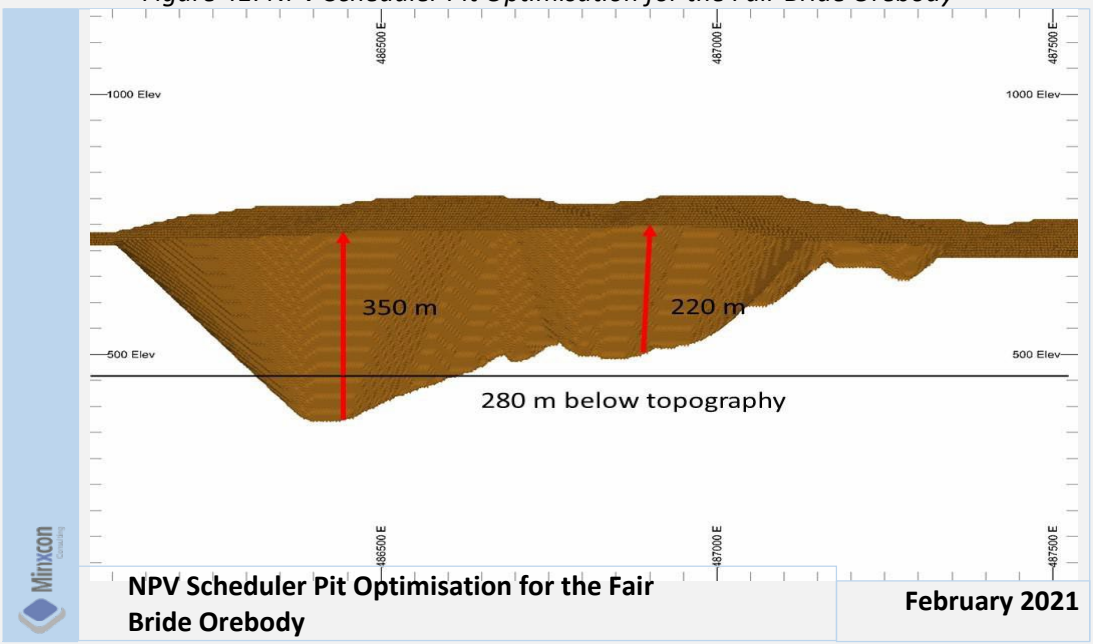
Mineral Resource Category	Tonnes	Gold Grade	Gold Content	
	Mt	g/t	kg	koz
Measured	0.005	4.40	24	0.8
Indicated	0.307	2.61	801	25.8
Total M&I	**0.312**	**2.64**	**825**	**26.5**
Inferred	5.350	2.59	13,874	446.1

Notes:

1. Mineral Resources are declared at indicated cut-offs.
2. No geological losses are accounted for.
3. A gold price of USD1,650/oz was used for the cut-offs.
4. Mineral Resources are inclusive of Mineral Reserves (no Mineral Reserves declared).
5. Mineral Resources are reported as 100% attributable.

The surface resource is based on a NPV scheduler optimisation run of an open cut design to test for reasonable prospects of eventual economic extraction. This optimisation run, completed in 2016, resulted in two pits, one to a depth of 220 m and the second to a depth of 350 m (Figure 41). The optimisation was rerun with the 2021 parameters, with the results returning a similar pit shell to that derived in 2016. Thus, the depth cut-off of 280 m is still applicable and was used to limit the surface resource for declaration purposes.

Figure 41: NPV Scheduler Pit Optimisation for the Fair Bride Orebody



In addition to the depth cut-off, the grade cut-off used was 0.5 g/t. This is based on a gold price of USD1,650/oz, which is the 90th percentile of the historical real term commodity prices since 1980, and a mining cost and processing cost of USD2/t and USD25/t respectively. The recoveries used in the Mineral Resource cut-off were 95.6% for the oxides and 90% for the transition and sulphide zones. The underground Mineral Resource is based on a 1.5 g/t cut-off which used the same gold price and recoveries but is based on a mining cost of USD42/t and USD19/t processing cost and mine call factor of 90%. The costs are based on the feasibility study completed in 2016 and escalated by 5% per annum and adjusted with an exchange rate of ZAR:USD 16.18.

Additional Mineral Resource tabulations have been compiled to show the oxide, transitional and sulphide split at a cut-off of 0.5 g/t (Table 21 to Table 23). A further breakdown of the total Mineral Resource classification at incremental cut-off is included in Table 24. Included is the grade tonnage curve for the resource model (Figure 42).

The Mineral Resources have been depleted with the historical pits that have been delineated by a LIDAR survey.

Table 21: Total Oxide Mineral Resource Stated at 0.5 g/t Cut-off as at 1 February 2021

Mineral Resource Category	Tonnes	Gold Grade	Gold Content	
	Mt	g/t	kg	koz
Measured	0.350	1.92	673	21.6
Indicated	0.040	1.77	70	2.3
Total M&I	**0.390**	**1.90**	**743**	**23.9**
Inferred	-	-	-	-

Notes:

1. Mineral Resources are declared at indicated cut-offs.
2. No geological losses are accounted for.
3. A gold price of USD1,650/oz was used for the cut-offs.
4. Mineral Resources are inclusive of Mineral Reserves (no Mineral Reserves declared).
5. Mineral Resources are reported as 100% attributable..

Table 22: Total Transitional Mineral Resource Stated at 0.5 g/t Cut-off as at 1 February 2021

Mineral Resource Category	Tonnes	Gold Grade	Gold Content	
	Mt	g/t	kg	koz
Measured	1.094	2.49	2,720	87.5
Indicated	0.233	1.63	379	12.2
Total M&I	**1.327**	**2.34**	**3,099**	**99.6**
Inferred	-	-	-	-

Notes:

1. Mineral Resources are declared at indicated cut-offs.
2. No geological losses are accounted for.
3. A gold price of USD1,650/oz was used for the cut-offs.
4. Mineral Resources are inclusive of Mineral Reserves (no Mineral Reserves declared).
5. Mineral Resources are reported as 100% attributable.

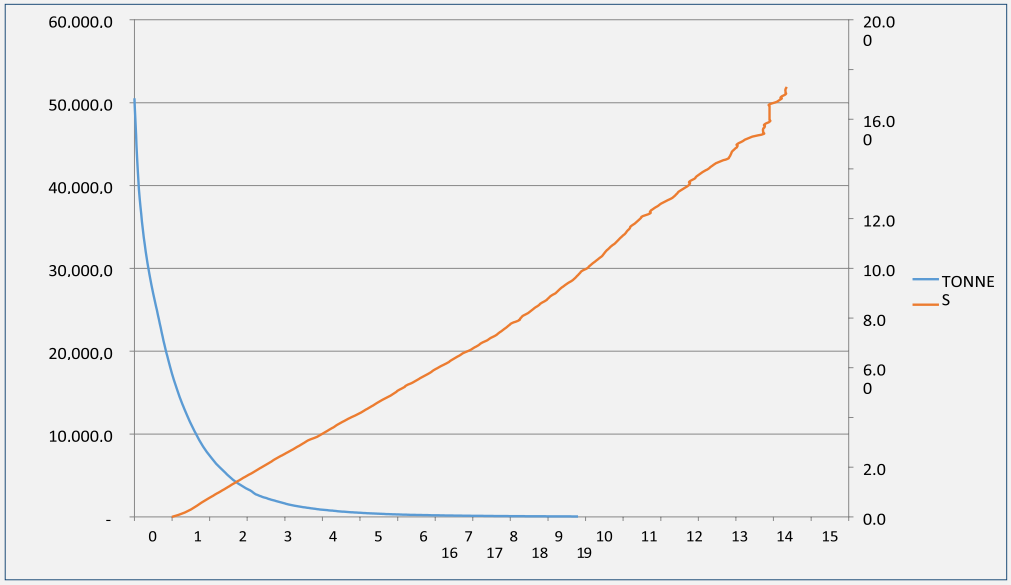
Table 23: Total Sulphide Mineral Resource Stated at 0.5 g/t Cut-off as at 1 February 2021

Mineral Resource Category	Tonnes	Gold Grade	Gold Content	
	Mt	g/t	kg	koz
Measured	8.320	1.78	14,770	474.9
Indicated	3.966	1.59	6,307	202.8
Total M&I	**12.286**	**1.72**	**21,077**	**677.7**
Inferred	12.930	1.65	21,313	685.2

Notes:

1. Mineral Resources are declared at indicated cut-offs.
2. No geological losses are accounted for.
3. A gold price of USD1,650/oz was used for the cut-offs.
4. Mineral Resources are inclusive of Mineral Reserves (no Mineral Reserves declared).
5. Mineral Resources are reported as 100% attributable.

Figure 42: Grade Tonnage Curve for the Total Mineral Resource



Note: The table for the graph is included in Appendix 1 of the Manica Technical Report

Table 24: Total Mineral Resource at Incremental Cut-offs

Au Cut Off	al Resource Category															
	Measured				Indicated				Inferred				Total Measured, Indicated and Inferred			
	Tonnes	Au	Au	Au	Tonnes	Au	Au	Au	Tonnes	Au	Au	Au	Tonnes	Au	Au	Au
	Mt	g/t	Kg	koz	Mt	g/t	kg	kz	Mt	g/t	kg	koz	Mt	g/t	kg	koz
0	18.28	1.09	19,885	639	9.47	0.80	7,583	244	22.77	1.00	22,852	735	50.52	1.00	50,320	1,618
0.5	9.76	1.86	18,163	584	4.24	1.59	6,757	217	12.93	1.65	21,313	685	26.93	1.72	46,233	1,486
1	6.14	2.53	15,542	500	2.57	2.16	5,543	178	8.56	2.10	18,007	579	17.27	2.26	39,093	1,257
1.5	4.05	3.20	12,970	417	1.63	2.69	4,380	141	5.56	2.58	14,324	461	11.24	2.82	31,674	1,018
2	2.79	3.87	10,798	347	1.05	3.22	3,385	109	3.55	3.06	10,842	349	7.39	3.39	25,026	805
2.5	2.00	4.51	9,042	291	0.67	3.79	2,530	81	2.27	3.51	7,989	257	4.94	3.96	19,561	629
3	1.49	5.13	7,632	245	0.44	4.32	1,920	62	1.43	3.98	5,689	183	3.36	4.54	15,241	490
3.5	1.12	5.75	6,443	207	0.30	4.83	1,457	47	0.85	4.53	3,828	123	2.27	5.17	11,728	377
4	0.88	6.31	5,536	178	0.22	5.27	1,143	37	0.52	5.03	2,590	83	1.61	5.76	9,269	298
4.5	0.69	6.86	4,760	153	0.15	5.73	861	28	0.31	5.57	1,719	55	1.15	6.37	7,340	236
5	0.56	7.38	4,110	132	0.10	6.16	645	21	0.19	6.09	1,162	37	0.85	6.94	5,917	190
5.5	0.44	7.93	3,511	113	0.07	6.65	455	15	0.12	6.53	810	26	0.64	7.52	4,776	154
6	0.36	8.46	3,014	97	0.04	7.13	319	10	0.08	6.93	572	18	0.48	8.08	3,905	126
6.5	0.28	9.02	2,566	82	0.03	7.48	243	8	0.05	7.35	377	12	0.37	8.65	3,186	102
7	0.23	9.53	2,217	71	0.02	7.98	155	5	0.03	7.79	240	8	0.28	9.24	2,611	84
7.5	0.19	9.99	1,937	62	0.01	8.38	105	3	0.02	8.35	132	4	0.22	9.79	2,174	70
8	0.17	10.37	1,722	55	0.01	8.93	60	2	0.01	9.14	60	2	0.18	10.27	,841	59
8.5	0.14	10.83	1,480	48	0.00	9.35	40	1	0.00	9.49	46	1	0.15	10.74	1,566	50
9	0.11	11.26	1,275	41	0.00	9.73	25	1	0.00	10.17	25	1	0.12	11.20	1,326	43
9.5	0.09	11.65	1,101	35	0.00	10.18	16	1	0.00	12.25	8	0	0.10	11.63	1,125	36
10	0.08	12.05	941	30	0.00	10.48	8	0	0.00	12.25	8	0	0.08	12.04	957	31

IV. MINERAL RESOURCE RECONCILIATION

Table 25 shows the reconciliation between the Auroch Mineral Resource estimate for Fair Bride in 2014 and the 2021 Mineral Resource estimate. The reasons for the changes for the Mineral Resource estimation included:-

- change in the estimation method from local uniform conditioning to ordinary kriging;
- depth change of the resource declaration from 350 m to approximately 530 m below surface;
- change of Mineral Resource wireframe to honour geological interpolation; and
- revised variogram and statistics.

Table 25: Reconciliation of the 2014 and 2021 Mineral Resource Estimate

Mineral Resource		Cut-off Au	Mineral Resources 2014			Percentage Change			Mineral Resources 2021		
Project	Mineral Resource Category		Tonnage	Grade Au	Content Au	Tonnage	Grade Au	Content Au	Tonnage	Grade Au	Content Au
		g/t	Mt	g/t	Koz	t	g/t	Oz	t	g/t	Koz
Fair Bride	Measured + Indicated	0.5	6.086	3.11	609	**130.1%**	**-42.8%**	**31.7%**	14.003	1.78	801
	Inferred	0.5	2.934	2.91	275	**340.6%**	**-43.4%**	**149.6%**	12.930	1.65	685

All Mineral Resources have been categorised and reported in compliance with the definitions embodied in the CIM Definition Standards on Mineral Resources and Mineral Reserves (6 May 2019). As per CIM specifications, Mineral Resources have been reported separately in the Measured, Indicated and Inferred Mineral Resource categories. Inferred Mineral Resources have been reported separately and have not been incorporated with the Measured and Indicated Mineral Resources.

The only metal considered in this Mineral Resource estimate for Fair Bride is gold. No other metals or metal equivalents were estimated or calculated. However, the presence of arsenopyrite was utilised for the delineation of the orebody lithological wireframes.

It is Minxcon's view that based upon the information provided to Minxcon by Xtract, no undue material risks pertaining to metallurgical, environmental, permitting, legal, title, taxation, socio-economic, marketing, political, and other relevant issues are applicable to the Mineral Resource estimates as at 1 February 2021.

Mineral Reserves have previously been declared for the Fair Bride Project in 2016 as part of the completion of the DFS (Item 6 (d)). However, the Qualified Person has been informed that significant changes to the mine plan and strategy have been applied since, thus rendering those Mineral Reserves not applicable. As such, this Report is presented as a Mineral Resource report only.

(10) Mining Methods

Conventional open pit truck-and-shovel mining was investigated as part of the 2016 DFS. However, the mining strategy has since changed and has not been assessed as part of this mandate.

(11) Recovery Methods

Metallurgical testwork has been completed in the past and supports the investigation of the processing methods investigated for the 2016 DFS. Following development and strategy changes, however, these were not reinvestigated for the purposed of this Report.

(12) Project Infrastructure, Permitting and Compliance Activities

This Report is presented as a Mineral Resource report. Project infrastructure requirements in addition to other relevant technical studies have not been investigated. This Report is presented as a Mineral Resource report. Detailed review of environmental and social considerations is not required in terms of NI 43-101.

(13) Capital and Operating Costs

Capital and operating costs were not investigated as part of this Mineral Resource report.

Tahuehueto Project

The information presented in this AIF about the Tahuehueto Project has been extracted or derived from the Tahuehueto Technical Report, which was filed by Altaley with the British Columbia and Alberta Securities Commissions, and which is available under Altaley's profile at wwww.sedar.com.

Section 9.2(1) of NI 43-101 states that an issuer whose interest in a mineral project is only a royalty or similar interest is not required to file a technical report to support disclosure in a document under subsection 4.2 of NI 43-101 (which includes an annual information form): (1) if (a) the operator or owner of the mineral project is (i) a reporting issuer in a jurisdiction of Canada, or (ii) a producing issuer whose securities trade on a specified exchange and that discloses mineral resources and mineral reserves under an acceptable foreign code; and (b) the issuer identifies in its document under subsection 4.2 (1) the source of the scientific and technical information; and (c) the operator or owner of the mineral project has disclosed the scientific and technical information that is material to the issuer. This exemption is available to Empress in respect of the information derived from the Tahuehueto Technical Report.

The information contained in this AIF derived from the Tahuehueto Technical Report is subject to certain assumptions, qualifications and procedures described therein. Reference should be made to the full text of the Tahuehueto Technical Report. The Tahuehueto Technical Report is not and shall not be deemed to be incorporated by reference into this AIF. The Tahuehueto Technical Report, and consequently the disclosure below, is prepared as of a certain point in time and Empress is not in a position to determine whether any information with respect to those properties that may be material subsequent to the date of the applicable Tahuehueto Technical Report exists. Therefore, in addition to the Tahuehueto Technical Report, readers should review public disclosures available on SEDAR made by Altaley, which is available under its issuer profile on SEDAR at www.sedar.com.

No qualified person has verified the data disclosed in the Tahuehueto Technical Report on Empress' behalf, including sampling, analytical, and test data underlying the information or opinions contained in the Tahuehueto Technical Report. As Empress is not the operator of the Tahuehueto property, it does

not have access to the data underlying the Tahuehueto Technical Report and it is unable to perform such verification.

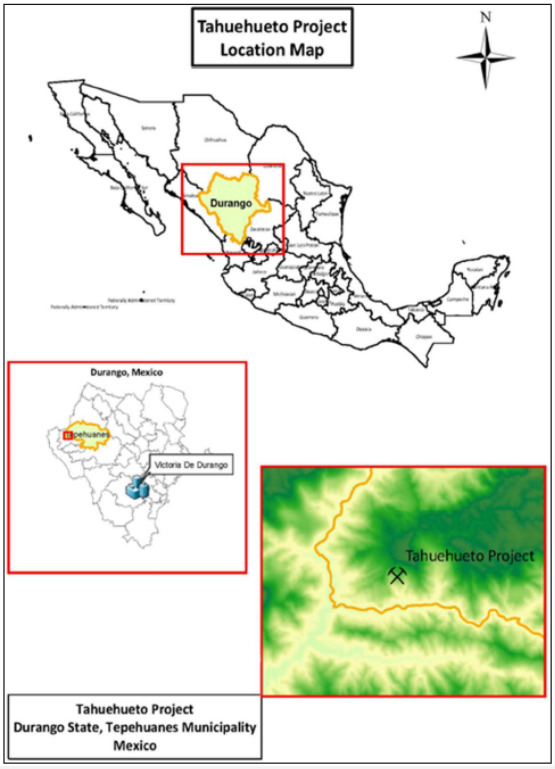
Terms and abbreviations used in the following summaries that are not otherwise defined therein shall have the meaning(s) ascribed thereto in the Tahuehueto Technical Report. Figures or charts referred to the Tahuehueto Technical Report but not reproduced herein may be viewed in the Tahuehueto Technical Report. Table references are to tables in the Tahuehueto Technical Report, certain of which are reproduced in this AIF. The Tahuehueto Technical Report should be read in the context of qualifying statements, procedures and accompanying discussion with the complete Tahuehueto Technical Report and the summaries below are qualified in their entirety by same.

(1) Project Description, Location and Access

The Tahuehueto Project is located in the northwest portion of the state of Durango (Figure 4-1), about 250 km northwest of Durango, the state capital, and 160 km northeast of the city of Culiacan, Sinaloa. The Project is located about 25 km north of the Topia polymetallic-silver mine, 40 km northwest of the La Cienega gold, silver, base metal mine, 85 km southwest of the Guanacevi silver district, 280 km southeast of the Palmarejo silver and gold mine, and 150 km northwest of the San Dimas mining district, most notable for the Tayoltita silver and gold mine.

The project is approximately centered on UTM coordinates (WGS 84 Zone 13 for México) 337366 m E and 2812659 m N (106°37'1 longitude west and 25°25'19 latitude north).

Figure 4-1 Location of the Tahuehueto Project



The Tahuehueto property consists of 28 mining concessions that total 7,492.7889 ha. The concessions are shown in Figure 4-2 and listed in Table 4.1. The concessions are located in five non continuous blocks, shown in Figure 4-2. Some of them are subject to royalties of 1.6% of the NSR.

Figure 4-2 Tahuehueto Project Property Map

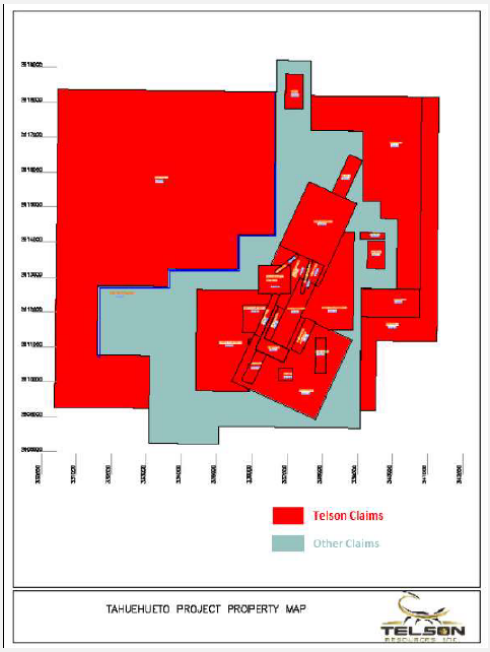


Table 4-1 Tahuehueto Mining Concessions

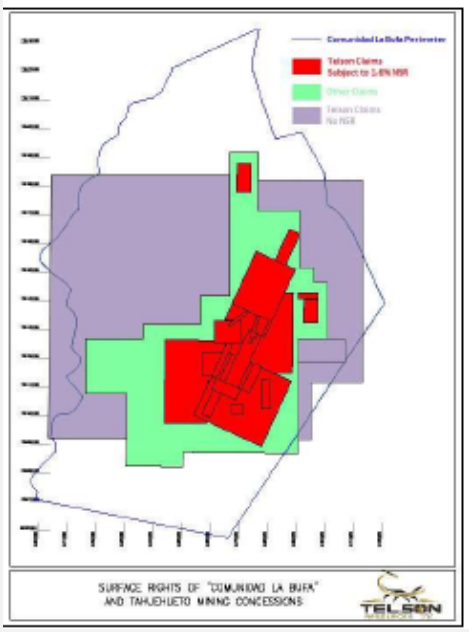
Tahuehueto Project-Mining Concessions						
Registered Owner	Mining Concession	Title	Granted	Expires	Hectares	Subject to Royalty 1.6%
Real	Dolores	153893	9/Jan/1971	8/Jan/2021	8.0000	No
Real	Colorado	160128	24/Jun/1974	23/Jun/2024	410.6622	No
Real	Tahuehueto El Alto	221990	27/Apr/2004	26/Apr/2054	68.5657	No
Real	Ampl Cinco De Mayo	221991	27/Apr/2004	26/Apr/2054	40.2384	No
Real	El Tres De Mayo	150452	26/Oct/1968	25/Oct/2018	30.0000	Yes
Real	Puerta De Oro Ii	151972	12/Nov/1969	11/Nov/2019	71.0475	Yes
Real	5 De Mayo	152274	20/Feb/1970	19/Feb/2020	25.8836	Yes
Real	Eugenia	152275	20/Feb/1970	19/Feb/2020	28.2288	Yes
Real	Guadalupe De Los Fresnos	152608	18/Mar/1970	17/Mar/2020	20.0000	Yes
Real	Sacramento	152634	18/Mar/1970	17/Mar/2020	94.3443	Yes
Real	Maria	152636	18/Mar/1970	17/Mar/2020	50.0000	Yes
Real	Sacramento	152716	18/Mar/1970	17/Mar/2020	12.0000	Yes
Real	Libertad	153872	9/Jan/1971	8/Jan/2021	46.0000	Yes
Real	La Gloria	153975	18/Jan/1971	17/Jan/2021	20.0000	Yes
Real	Montecristo	154675	12/May/1971	11/May/2021	305.9668	Yes
Real	La Reyna Del Oro	155213	10/Aug/1971	9/Aug/2021	30.0000	Yes
Real	Estela	156835	28/Apr/1972	27/Apr/2022	14.0000	Yes
Real	Yolanda	158064	17/Jan/1973	16/Jan/2023	18.6311	Yes
Real	Imperio	158112	19/Jan/1973	18/Jan/2023	40.0000	Yes
Real	Eloy Ii	160706	15/Oct/1974	14/Oct/2024	47.6740	Yes
Real	El 201	221992	27/Apr/2004	26/Apr/2054	14.4114	Yes
Real	Ampl Sacramento	222123	21/May/2004	20/May/2054	254.6345	Yes
Real	Ii Ampl 5 De Mayo	222124	21/May/2004	20/May/2054	411.8868	Yes
Real	El Espinal 3	228156	6/Oct/2006	5/Oct/2056	836.8595	No
Real	Vueltas 4	229396	17/Apr/2007	16/Apr/2057	3863.8992	No
Real	Vueltas 5 (Terrain Correction)	229397	17/Apr/2007	16/Apr/2057	53.7438	No
Real	El Espinal 5	229398	17/Apr/2007	16/Apr/2057	132.3710	No
Real	El Espinal 4	229438	19/Apr/2007	16/Apr/2057	543.7403	No
Total Hectares					7,492.7889	

All 28 mining concessions are owned by Real de la Bufa S.A. de C.V. ("Real"), a Mexican subsidiary of the Company, and at present, all taxes owing to the Bureau of Mines of México are paid.

On April 26, 2016 Real de la Bufa renewed and extended a temporary land use agreement (the "Agreement") with the Comunidad La Bufa (hereinafter "Comunidad"), holders of certain surface rights at Tahuehueto. The renewed Agreement allows the Company to explore, develop and produce minerals within an area of 2,062 ha over a period of 30 years beginning on the date of the Agreement and may be extended upon request by Real. This 30-year Agreement is obligatory to Comunidad, not for Real. Real will pay to Comunidad a fee of US $46,540.00 or the equivalent amount in Mexican Pesos for each 365-day period as compensation for the temporary land use for mining exploration and exploitation. Payments will be due yearly on the anniversary date of the Agreement and will be subject to annual increase of 5% on the value of the preceding year's payment.

The Surface Rights Agreement allows Real unrestricted access to explore, develop and mine metals within the area covered under the agreement and other areas are open to negotiate any agreement for further exploration as shown in Figure 4-3. The Agreement applies to the internal 23 concessions. The 23 internal concessions are those subject to the 1.6% NSR as listed in Table 4.1.

Figure 4-3 Surface Rights of the Comunidad La Bufa and the Tahuehueto Mining Claims



Access to the Project by land is by paved Mexican Highway 45 from the city of Durango 53 km to the turnoff to Santiago Papasquiaro, then west on paved Mexican Highway 23 for 122 km through Santiago Papasquiaro and on to Tepehuanes. From Tepehuanes, an unnumbered paved road runs west through El Tarahumar.

The pavement ends approximately 65 km after Tepehuanes, and access is then by 120 km of unimproved dirt road to the project. The approximately 175 km trip by road from Tepehuanes to Tahuehueto takes about 5 to 6 hours of driving.

There is also access via fixed-wing aircraft from either Culiacan or Durango. A serviceable gravel airstrip is located 20 km by road north of Tahuehueto at El Purgatorio. This airstrip is maintained by Altaley and is suitable for single-engine aircraft.

Narrow gravel roads in steep terrain provide access to various locations within the project limits.

The nearest sizeable community to the project area is Tepehuanes, which is located approximately 175 km by road east of the property and has a population of approximately 15,000. A 34.5 kv power line and telephone service extends as far as Tepehuanes; diesel generators presently supply power to the project site.

Topia, also serviced with a power grid is located about 25 km southeast of the Project by air, is the nearest community of any size, with a population of about 1,200.

Altaley first obtained water for the project from an underground adit above the camp; water is available from levels 16 and 14 of the El Creston underground workings, from all four levels of the El Rey underground workings and also from an artesian well recovered from one of Altaley exploration drill holes. During exploration drilling, water has been pumped up to the project site from the Rio las Vueltas, which flows some 800 m year-round below the camp. Water to supply mining operation will be sourced from flooded underground exploration adits in the Tres de Mayo area and pumped to the mill site.

The Tahuehueto project is on the western side of the Sierra Madre Occidental, a mountain range that forms the central spine of northern Mexico and is largely composed of Tertiary volcanic rocks. Tahuehueto is in a sub-province called Barrancas, which means ravines in Spanish and accurately describes the project area.

The terrain at the Project is very steep to precipitous in places. Elevations range from about 600 m in river valleys in the southern part of the property to over 2,500 m on high-level plateaus in the northern part of the property. El Creston, the most important of the mineralized zones identified to date, is located along a northeast-trending ridge that spans an elevation range of 1,400 to 1,800 m.

In the treeless barrancas, scrub alpine bushes and cacti with minor underbrush make up the vegetation. Thicker underbrush, similar to willow, occurs in creek bottoms, while Ponderosa pine trees grow on the high plateaus.

The region is drained by the Rio las Vueltas, which flows continuously all year from east to west and is located south of the camp at an elevation of 600 to 625 m. There is one major drainage basin in the Tahuehueto project area that feeds the Rio las Vueltas. Most streams in the area are seasonal.

The Project is in a relatively quiet seismic area that has seen no major earthquakes within about 400 km, based on the National Geophysical Center/NOAA's Significant Earthquake Database that contains information on destructive earthquakes from 2150 BC to the present.

(2) History

Historic exploration has been focused along a series of exposed veins, silicified zones and color anomalies that are common within the Tahuehueto project area. The information in this subsection is taken from Brown (1998b, 2004) unless otherwise referenced. Gold and silver vein mineralization was discovered in the Tahuehueto area in the nineteenth century by Spanish explorers. The veins were examined and found to contain good gold and silver values hosted in sulfides, which at that time could not be processed.

The first recorded exploration was in 1904 (Cavey, 1994) when an English company began development on the Veta 20-93 (El Creston) at the Sacramento de la Plata mine. The actual starting date of the limited production is not recorded.

Compañía Minera Sacramento de la Plata, a predecessor company of Real de la Bufa, was founded in 1966 and developed over 700 m of underground workings on the El Rey and El Creston structures in 1971. A 50 tpd plant was constructed to process the mined material and was operated in the 1970s. Concentrates from the mill were flown to Santiago Papasquiaro and then driven to the smelter at Torréon. Total production from Tahuehueto appears to have been limited. ASARCO sampled El Creston and other veins in the region. Tadmex, S.A. de C.V. developed Level 16 of the El Creston vein (Pedroza Cano, 1991). RDA has no detailed information on these programs.

A company called Emijamex, S.A. de C.V. (“Emijamex”) conducted geochemical and rock sampling, detailed geological investigations, drifting, and crosscutting at the Sacramento de la Plata mine from 1975 through 1977 (Kamono, 1978), including Levels 11, 12, 13 and 14 (Pedroza Cano, 1991). They also submitted an auriferous lead/zinc sample for metallurgical study that is described in Section 16 (Rios et al., 1977a, 1977b).

The Consejo de Recursos Minerales, a Mexican government geological organization that is currently called the Servicio Geológico Mexicano or “SGM”, drilled 28 surface and underground holes that tested the El Creston and Cinco de Mayo structures in the early 1980s. This appears to have been the only drilling done on the project prior to that of Soho, but no data from the Consejo de Recursos Minerales program are available. The Consejo de Recursos Minerales also conducted an induced polarization (“IP”) study over an area of about 3 by 0.4 km that included the El Creston, Cinco de Mayo, and Texcalama zones. The lines were 300m long and spaced 50m apart, and measurements were recorded every 20m at El Creston and 25m at Texcalama and Cinco de Mayo. The IP study identified anomalies that correspond to the continuation of the known structures (Consejo de Recursos Minerales, 1983b).

Castle Minerals Inc. of Vancouver (“Castle”; subsequently changed to Castle Rock Exploration Corp.) optioned Tahuehueto from Sacramento in 1994. At that point, the property consisted of 17 concessions totaling 1,261 ha. Cavey (1994) stated that Castle’s intention was to undertake a surface and underground exploration program to verify historic reserve estimates and to evaluate the potential for the existence of a much larger, lower grade open pit minable deposit.

Prior to the time that Castle acquired the property there were at least 15 documented mineralized zones. Many of these have since been determined to be parts of larger structures. The El Creston vein

structure had been exposed in 10 horizontal levels, with 2.000m of total development in adits, drifts and crosscuts (Cavey, 1997) over a vertical distance of approximately 490m. The Cinco de Mayo vein system had been explored by 3 adits, one of which was inaccessible in 1997, if not so in 1994. The Texcalama structure had been explored by at least five separate single level adits along as much as 300m of exposure.

The report by Cavey (1997) presented a geological appraisal of the Tahuehueto project, describes the work completed by OREQUEST Consultants in 1994 for Castle, and made recommendations for further work.

Castle collected 459 rock samples, including 247 from the El Creston structure, 21 from the Cinco de Mayo structure, and 191 from other sites on the property. The samples included both surface chip samples and underground chip-channel samples.

At El Creston seven of the ten crosscuts examined were mapped and sampled in 1994 (Cavey, 1997) to determine the width of the vein and the general dimensions of the stockwork beyond the walls of the vein. Historic mining of the El Creston structure was over 3.0-6.0m widths, primarily within the zone of the most obvious sulfide mineralization, but the breccia/stockwork zone is locally up to 50m wide (Cavey, 1997). The best exposure of the mineralized vein system in 1994 was from level 11. The entire 39m of the vein exposure sampled averaged 5.50 g/t Au, 34.03 g/t Ag, 2.3% Zn and 0.92% Cu over an average width of 1.19m. Several of the samples were encouraging as they contained vein material as well as footwall and hanging wall material; these samples averaged 1.30 g/t Au, 5.0 g/t Ag, 0.7% Zn and 0.33% Pb over a true width of 13m.

Brown (2004) stated that the sampling by Castle in 1994 appeared to indicate that the El Creston vein is not continuous in the eight levels sampled as would be expected in a vein structure containing massive sulfides. Cavey (1997) did mention the presence of post-mineral faults within the El Creston structure creating up to 20m of offsets along the mineralization.

Sampling on the Cinco de Mayo structure by Castle in 1994 showed an average grade of 4.91g Au/t over an average width of 1.5m along 138m of the vein exposed in the underground workings; samples were taken approximately every 15-20 m (Cavey, 1997). One footwall sample returned a value of 9.73 g/t Au over 5.0m, and hanging wall samples returned gold values of 6.96 g/t over 1.5m, 0.74 g/t over 1.1m, 2.06 g/t over 5.0m, 0.56 g/t over 5.0m and 2.86 g/t over 5.0m. Several of the vein samples combined with either hanging wall or footwall samples resulted in nearly continuous chip samples that produced values of 4.78g Au/t over 11.3m, 1.63g Au/t over 6.3m, and 1.57g Au/t over 12.0m.

Cavey (1997) concluded that "*the 1994 sampling was unable to reproduce the grades obtained by others in the resource calculations done on the El Creston structure" but that "the 1994 Castle sampling confirmed the grades previously obtained in the Cinco de Mayo area.*"

Castle dropped their option within two years without having drilled any holes. Brown (1998b) reports that 5,900m of underground development and exploration workings at El Creston, Cinco de Mayo, and El Rey had been completed by previous operators, among whom he identified Asarco, Peñoles, Consejo de Recursos Minerales, and DOWA Mining Company.

(3) Geological Setting, Mineralization and Deposit Types

The Tahuehueto project lies near the western edge of the Sierra Madre Occidental, a 1,200 km long north-northwest-trending volcanic plateau that is 200 to 300 km in width. This mountainous plateau separates the southward extension of the Basin and Range Province of the southwestern United States into two parts; Sedlock et al. (1993) suggested calling these two areas of extension the eastern and western Mexican Basin and Range provinces. Tahuehueto is near the boundary between the Sierra Madre Occidental and western Mexican Basin and Range Province.

Basement rocks in the Sierra Madre Occidental are obscured by Cenozoic volcanic flows, tuffs, and related intrusions, but are inferred to include Proterozoic basement rocks, overlying Paleozoic shelf and eugeosynclinal sedimentary rocks, possibly scattered Triassic-Jurassic clastic rocks, and Mesozoic intrusions (Sedlock et al., 1993; Salas, 1991). These basement rocks are not exposed in the project area (Figure 7-1).

Cenozoic magmatic rocks in northern Mexico, including the Sierra Madre Occidental, are generally thought to reflect subduction-related continental arc magmatism that slowly migrated eastward during the early Tertiary and then retreated westward more quickly, reaching the western margin of the continent by the end of the Oligocene (Sedlock et al., 1993).

The eastward migration is represented in the Sierra Madre Occidental by the Late Cretaceous-Paleocene “lower volcanic series”, or Nacozari Group, of calc-alkaline composition. Over 2,000m of predominantly andesitic volcanic rocks, with some inter-layered ash flows and associated intrusions, comprise the lower volcanic series.

There was a period of approximately 10 million years between eruption of the lower volcanic series and the onset of the next phase of felsic volcanism, referred to as the upper volcanic series. A number of stocks intrude andesites of the lower volcanic series. These stocks are generally of granodiorite composition and are believed to be a late phase of the Sinaloa batholith (Henry et al., 2003). At Topia, it is during the hiatus in volcanism that the lower series was faulted, tilted, deeply dissected, and then intruded by the granodiorite stocks, and a northeast-trending set of faults was mineralized as Ag-Zn-Pb-Au-Cu rich fissure veins (Loucks et al, 1988).

A similar scenario is envisioned at Tahuehueto. K-Ar dating at Topia of igneous rocks and mineralization yield an age of 46.1 Ma for one of the granodiorite stocks, ages between 43.5 Ma and 44.0 Ma for the hydrothermal system, and 37.9 Ma for the lowermost rhyolite welded tuff of the upper volcanic series (Loucks et al, 1988).

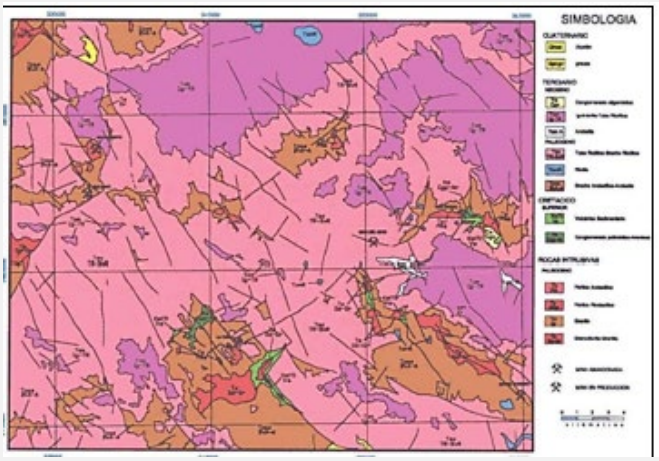
Rhyolitic ignimbrites and flows, with subordinate andesite, dacite, and basalt, formed during Eocene and Oligocene caldera eruptions. These volcanic rocks form a 1 km-thick unit that unconformably overlies the lower volcanic series andesitic rocks and constitutes the “upper volcanic super group” of the Sierra Madre Occidental (Sedlock et al., 1993), also commonly referred to as the upper volcanic series or Yecora Group.

The upper volcanic series ignimbrites are moderately west dipping in the Tahuehueto region. Loucks et al. (1988) report that the ignimbrites are warped into a broad north-south anticline. Tahuehueto lies

in thewestern limb of this large regional structure. As the magmatic arc retreated to the western edge of the continent, becoming inactive by the end of middle Miocene time, late Oligocene to Miocene (24 to 17 Ma) basaltic andesites were erupted in a back-arc basin in the Sierra Madre Occidental. These basaltic andesites may have been deposited in a sub-aqueous environment.

Still younger alkalic basalts related to Basin and Range extension are found in and east of the range; these youngest basalts are present just north of the city of Durango. Although there appears to have been little late Cenozoic extension in the Sierra Madre Occidental itself, extensional Basin and Range-type structures and ranges formed to the east and west.

Figure 7-1 Regional Geological Setting of Tahuehueto Project



The property contains four main rock types: lower volcanic series andesite, granodiorite stocks, polymictic conglomerate, and felsic ash-flow tuffs of the upper volcanic series. The majority of the project area is underlain by andesite flows, tuffs, and volcaniclastic rocks of the lower volcanic series. A geologic map is shown in Figure 7-2.

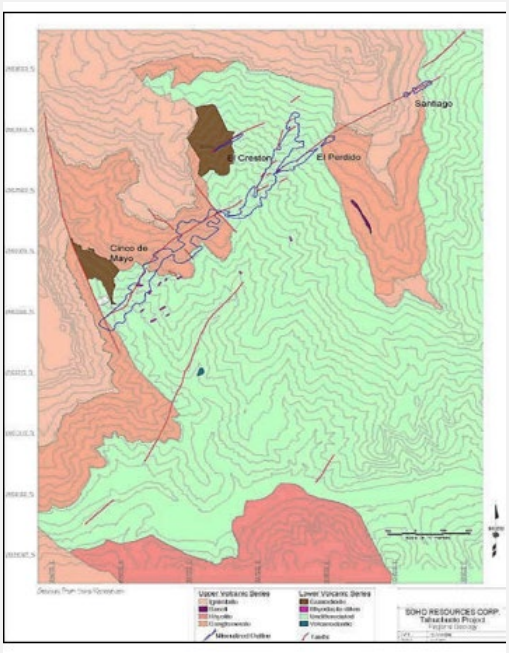
The lower volcanic series remains generally undifferentiated. A volcaniclastic unit distinct from the andesite flows exists in the Texcalama and Cinco de Mayo areas and an andesite lithic lapilli tuff exists in the footwall of the El Creston structural zone. Granodioritic stocks intrude the andesites and are exposed at surface in the footwall of the El Creston structural zone and the El Rey mine area.

The andesites and granodiorite are overlain by a basal polymictic conglomerate unit that is tens of meters thick and marks the unconformity between the lower and upper volcanic series. Amygdaloidal basalt flows occur locally within the conglomerate unit. In some areas, thin units of ignimbrite were deposited before the conglomerate. Late Tertiary or Quaternary landslides obscure outcrop patterns in the El Creston-El Perdido area and are likely to be present in other areas of steep topography within the project area.

A series of northeast-striking veins that formed within a series of normal faults with subordinate left-lateral displacement hosts the Mineral Resources described in Section 14. The principal, through going veins have a general strike of 045° to 060° and dip between 65° and 80° to the southeast. This vein set

includes Cinco de Mayo, El Catorce, and El Perdido and extends northeastward to Santiago. Other veins with the same orientation include El Rey, Dolores, Tahuehueto, Texcalama, El Espinal, and Tres de Mayo. Within the core area of the Mineral Resources, the El Creston series of veins, striking about 035° and dipping 60° to 80° east, formed in a strongly dilatant zone between the through-going El Perdido and El Rey structures.

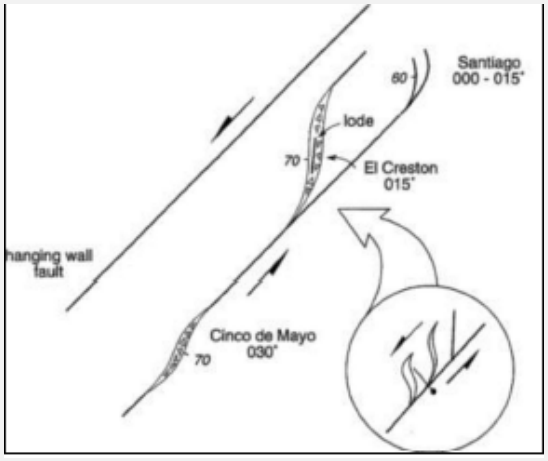
Figure 7-2 Geology of the Tahuehueto Project Area



Mineralization at Tahuehueto is classified as intrusion related epithermal low sulfidation polymetallic Ag- Au style (Corbett, 2007), with Au and Ag accompanied by Cu, Pb, and Zn mineralization. These types of deposits are interpreted to have been derived from porphyry intrusion source rocks at depth.

A northeast-striking corridor of steep east dipping fractures and normal faults, traced for about 3 km from Cinco de Mayo in the south to Santiago in the north, represents the main control to mineralization at Tahuehueto. North-northeast trending subsidiary structures, such as at El Creston, are less continuous and commonly display more open vein textures typical of a dilational setting. Figure 8-1 schematically represents the interpreted structural elements present at Tahuehueto that localize mineralization at Cinco de Mayo, El Creston and at Santiago. In many vein systems much of the mineralization is confined to structural shoots that are commonly developed within dilational structures (Corbett, 2007).

Figure 8-1 Structural Elements Present at Tahuehueto



Mineralization at Tahuehueto is strongly telescoped, with early high temperature mineralization and alteration overprinted by intermediate temperature and then by younger epithermal mineralization and alteration assemblages. The multiple mineralizing events obscure vertical zonation patterns that are commonly found in other epithermal vein deposits.

Mineralized zones are characterized by pervasive silicification, quartz-filled expansion breccias, and sheeted veins. Multiple phases of mineralization produced several phases of silica, ranging from chalcedony to comb quartz (Corbett, 2007). The surface expression of known mineralization occurs over a vertical distance of at least 850m between Cinco de Mayo and Santiago. The El Creston mineralized zone has been developed by 10 levels over 490m vertical distance.

Cinco de Mayo occurs at the deepest crustal level, where alteration and breccias (below) are indicative of buried porphyry. The Santiago area occurs at the highest elevation where crystalline and chalcedonic quartz veins are consistent with the pronounced overprinting relationships recognized elsewhere on the property, and hypogene hematite in the chalcedony vein is indicative of lower temperature epithermal mineralization (Corbett, 2007).

Mineralization at Tahuehueto occurs as polymetallic epithermal veins with multiple mineralizing events overprinted on one another in the same vein structure. The primary host rock is andesite of the lower volcanic series, but in at least one case, the hydrothermal system penetrated felsic ignimbrite of the upper volcanic series. Styles of mineralization identified by Corbett (2007) include:

- Initial pervasive propylitic-potassic alteration with local specular hematite develops as intrusion-related alteration.
- Early chalcopyrite-pyrite mineralization, locally with quartz-barite typically forms early and at deeper crustal levels in polymetallic Ag-Au vein systems.
- Polymetallic Ag-Au mineralization comprising pyrite-galena-sphalerite ± chalcopyrite ± chalcopyrite ±Ag sulfosalts ± barite represents the volumetrically most apparent mineralization and displays pronounced vertical variation discerned as changes in the sphalerite color from dark brown Fe-rich high temperature sphalerite formed early and at depth to red, yellow and less

commonly white sphalerite as the Fe-poor low temperature end member that typically develops at higher crustal levels and as a later stage. Much of this mineralization occurs as sulfide lodes or as breccia infill. Bulk lower grade mineralization occurs as fine grained Au and Ag sulfosalts deposited within base metal sulfides as part of the main polymetallic mineralization, rising to higher grade Ag with increased base metal contents. These events evolve to mineralization with a more epithermal character and locally higher Au-Ag grades at later stages where base metal sulfides are overprinted by Ag-rich tetrahedrite (freibergite).

- Highest Ag-Au grades locally occur in the absence of Cu-Pb-Zn in ores described as the epithermal end member of polymetallic Ag-Au mineralization which is strongly structurally controlled. High grade Ag may occur as freibergite with celadonite in combination with white sphalerite and dark chlorite commonly with later stage opalchalcedony. Semi-massive to banded chlorite locally occurs with celadonite-pyrite-opal and displays elevated Au with significantly lower Ag: Au ratios. Hypogene hematite occurs with banded quartz as an epithermal assemblage which accounts for elevated Au grades overprinting earlier sulfide- rich mineralization.

Overprinting of the lower-temperature, higher-level mineral assemblage onto the higher temperature, deeper-level mineral assemblage is referred to as telescoping. This telescoping may represent the progressive cooling of the hydrothermal system, although in some instances tectonic un-roofing of the cover rocks may also result in a decrease in overburden and progressive deposition of higher crustal level, lower temperature mineral assemblages. Increasing gold and silver grades in the later higher crustal level assemblages without significant base metals is an important element of this telescoping (Corbett, 2007).

Breccias are an integral part of the Tahuehueto hydrothermal system and display several genetic styles. Corbett (2007) notes that many of the sulfide-mineralized zones display sulfide transport textures; typical of fluidized breccias. Milled breccias are those in which the clasts have undergone significant working while being transported from deeper to elevated crustal settings. These breccias typically contain rounded clasts in a matrix of milled rock flour which has undergone hydrothermal alteration. Expansion breccias, in which the fragments have been moved apart and filled in with carbonate or quartz in a jigsaw pattern, are typical in dilational structural settings. Magmatic hydrothermal breccias typically occur in near porphyry environments and contain clasts of porphyry intrusions and alteration in a milled matrix. Shingle breccias with elongate, parallel shingle-like fragments, are thought to have been formed by collapse following the explosive escape of volatiles from an underlying magma chamber. Figures 8-2 through 8-6 present examples of these breccias.

The uppermost portions of the mineralized structures are oxidized. In the oxide zone, mineralization consists of malachite, azurite, chalcocite, covellite, limonite, and hematite. Malachite overprints tetrahedrite, and chalcocite and covellite form coatings on sphalerite. The depth of the oxide-sulfide interface varies considerably but is generally less than 100m.

Sulfide mineralization lies below the oxidized zone and consists of sphalerite, galena, chalcopyrite, tennantite, tetrahedrite, and probably electrum. Gangue minerals are quartz, pyrite, chlorite, sericite, and calcite. Locally a light green phyllosilicate mineral interpreted to be celadonite (Loucks, et al 1988) forms as gangue and is closely associated with high-grade gold and silver mineralization.

Corbett (2007) observed supergene enrichment in both mine workings and in drill hole DDH07- 081 from the upper part of the El Creston zone. The oxide-sulfide interface occurs at about 37m in depth in that hole. Corbett (2007) states that silver and zinc were leached from the oxide zone, with silver and copper being enriched below the base of oxidation. Silver increases from 39.1g Ag/t between 34.95 to 37m to 270g Ag/t at 37 to 40.05m in the hole. Gold is concentrated at the base of the zone of oxidation.

(4) Exploration

Altaley entered into a "Promise to Contract" agreement in 1996, after Castle dropped their interest in Tahuehueto, whereby the owners of a majority of the outstanding shares of Sacramento agreed to enter into a Share Purchase Agreement. This agreement was executed in March 1997.

Altaley conducted both surface and underground sampling in 1997 to verify historic mineral inventory estimates and to evaluate the potential for a much larger, lower grade open pit deposit (Brown, 1998b, 2004). The following summary of Soho's 1997 work is from Brown (2004):

The initial part of the work program consisted of both detailed rock channel sampling at the El Creston, along with camp construction. The second half of the work program was devoted to the continued channel sampling of the El Creston underground workings, and the preliminary geological mapping of the El Creston workings. Approximately 1,200 underground and surface channel samples were taken from the El Creston zone, with a few samples taken at Dolores, Cinco de Mayo and Los Burros. Channel samples taken in cross cuts were generally a 1.5 m width, while channel samples from drifts along the structures were from a 1.0-1.5 m width depending on the width of the drift. Along drifts, channel samples were taken at 2.5 m centers.

Altaley geologists created a relational database to store and manipulate all of the sample location, description and analytical data. All the previous surveyed underground workings were digitized, and all the sample data has been plotted, level by level at El Creston, on sample number, gold, silver, copper, lead, and zinc maps. Altaley geologists mapped the underground workings at El Creston, but Altaley either in a reconnaissance or property scale manner did no geological mapping, this will have to be addressed in the following exploration programs.

Altaley resumed exploration at Tahuehueto in the spring of 2004 (Soho, 2004). Initial focus was to prove continuity between the two existing highly mineralized El Creston and Cinco de Mayo zones and thereby demonstrate the potential for a large scale gold deposit (Soho, 2004b).

Subsequent exploration, as detailed below, has included continued exploration along the mineralized corridor between Cinco de Mayo and Santiago, while testing some of the additional mineralized zones on the property.

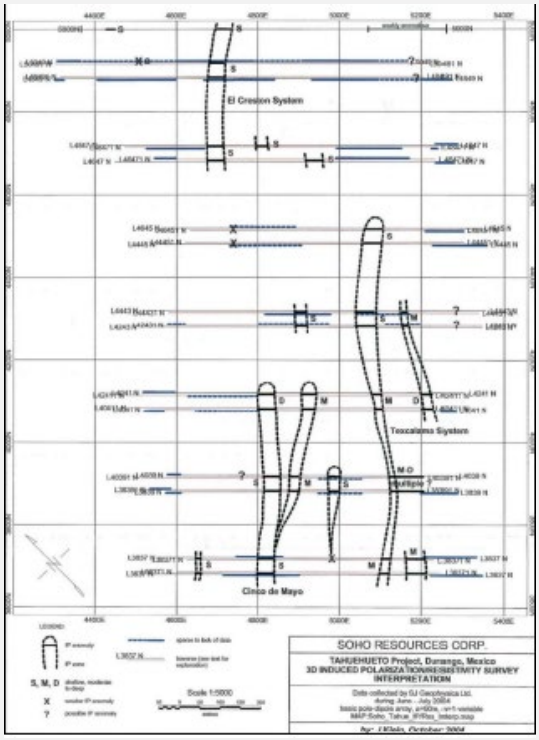
A geophysical survey was implemented in 2004 to prove continuity between the known mineralized zones at El Creston and Cinco de Mayo, followed by a drilling program to test El Creston, Cinco de Mayo, and any anomalies generated from the geophysical study.

SJ Geophysics Ltd. conducted the geophysical survey that included resistivity and IP measurements taken on approximately 18.5 km of grid using an Elrec 6 IP receiver and an Androtex 10 Kw transmitter (Visser, 2004). The configuration used for this survey was a 3Denhanced equivalent form of dipole-dipole IP with a 12 m by 50 m dipole array. Data were analyzed using the DCINV2D and 3D inversion program, which converts surface IP/resistivity measurements into a realistic "Interpreted Depth Section". The 3D IP survey was designed to examine the sulfide mineralization at El Creston, Cinco de Mayo, and Texcalama, and to test the intervening area for possible extensions of these mineralized zones. The following summarizes the results of this survey:

- The survey conditions were favorable, good electrical contact to the ground was established and high quality data was recorded across the entire survey grid.
- The portions of the El Creston, Cinco de Mayo and Texcalama mineralized zones surveyed returned significant anomalous chargeability responses. Discontinuously extending between these zones, which bracket the survey grid, run a suite of highly chargeable features.
- There does not appear to be a strong resistivity association with the known mineralization. The El Creston and Cinco de Mayo exhibit elevated resistivities. The Texcalama vein system is cross cut by a significant NW-SE trending resistive feature and may reflect a lithological contact between the Lower Volcanic Series and the "El Rey" Intrusive Suite (Visser, 2004).

Klein (2004) later reviewed the data from the geophysical program; his interpretive results are shown in Figure 9-1.

Figure 9-1 3D Induced Polarization/Resistivity Survey Interpretation



In November 2004 Dateline Internacional, S.A. De C.V. was contracted and drilled 34 reverse circulation ("RC") holes to test the induced polarization ("IP") geophysical chargeability anomalies located within and between the El Creston and Cinco de Mayo zones along the El Creston-Cinco de Mayo Trend as well as to test the chargeability responses along the Texcalama Trend. The RC drilling program commenced in December 2004 (Soho, 2004d).

Drill related activities had been the primary focus at Tahuehueto from 2005 thru 2008. Altaley has undertaken a number of other exploration related activities since 2004 (Soho, 2004b,c, 2006a,c,d,e,f). Surface and underground sampling programs include:

- Underground at Cinco de Mayo South
- Surface and underground at Texcalama
- Surface at Santiago
- Surface at El Pitallo
- Underground at Espinal
- Underground at El Rey
- Surface along the northern Cinco de Mayo trend
- Follow up surface at Santiago
- Surface and underground at the numerous prospects & color anomalies on the property

Surface geologic mapping was initiated in 2004 and suggested that mineralization is closely related to coeval faulting, felsic volcanism, and sedimentation, and that mineralizing structures continue from the lower volcanic units, where they are most pronounced, into the upper volcanic units (Soho, 2004b).

Several petrographic and fluid inclusion reports have been generated on samples from Tahuehueto. A total of 32 rock samples were sent to PetraScience Consultants Inc. for petrographic study in 2004, from which 30 were selected for petrographic analyses (Dunne, 2004b). Eight of these samples (2 from El Creston; 4 from Cinco de Mayo, 1 from Texcalama, and 1 from El Rey,) were selected for fluid inclusion petrography and micro-thermometry (Dunne, 2004a). The eight samples from the El Creston Zone comprise a variety of quartz veins, breccias and quartz vein breccias with primary and replacement vein textures and alteration assemblages indicative of the low sulphidation (adularia-sericite type) epithermal environment (Dunne, 2004b). The seven breccias/quartz vein breccias/vein stockwork samples from the Cinco de Mayo Zone showed alteration assemblages indicative of the lower crustiformcolloform and crystalline superzones of a low sulphidation epithermal environment and possibly transitional to polymetallic gold-silver veins or the quartz-sulphide-gold-copper environment describe by Corbett (2002). Two of the four samples from the Texcalama Zone may contain former porphyritic rock fragments. The two samples from El Rey were similar to those from level 3 at El Creston. One of four samples from the Tres de Mayo Zone contains "wispy quartz" texture characteristic of metamorphosed or deep vein systems (Dunne, 2004b).

Fluid inclusion evidence for boiling is present from two samples from Cinco de Mayo and one from Texcalama. Mineralogical evidence for boiling (lattice-bladed or ghost-bladed textures that pseudomorph lattice carbonate exist in samples from level 3 at El Creston, and from Texcalama and El Rey. Dunne (2004a) stated that homogenization temperatures and salinities fall in the expected

range for epithermal deposits and fall in the classification of shallow, boiling low-sulphidation epithermal deposits.

Five additional rock samples were submitted for petrographic analysis to PetraScience Consultants Inc. in 2005. An additional three samples were included for fluid inclusion analysis, but were deemed of little value so were not analyzed (Dunne and Thompson, 2005). The samples were described as variably altered volcanic or volcaniclastic rocks. Alteration consisted of early pervasive K-feldspar alteration followed by assemblages consisting of variable amounts of chlorite, calcite, hematite, sericite, and quartz. Spatial information was not included, so the data are of limited value. Eleven drill-core samples were sent to Kathryn Dunne for petrographic analysis in 2007.

Fourteen polished thin sections were prepared from these samples; and ten doubly polished fluid inclusion plates were prepared from eight of the samples (Dunne, 2007a; Dunne, 2007b).

The results from these samples were consistent with the observations and conclusions previously reported by Dunne (2004b). Drill cuttings samples from drill hole RC-018 from El Creston were submitted to Vancouver Petrographics Ltd in 2005. The samples were from six consecutive 1.5 m intervals from 67.06 to 76.2 m containing high-grade gold values (11.05-62.3 g/t Au). Both a screened fine grained sample and a coarse grained sample were included for all but the 67.1 to 68.6 m interval. The detailed descriptions of the samples focused on the distribution of native gold which occurred in almost all samples in a variety of textures (Payne, 2005). "*Most commonly it forms inclusions in pyrite, in part associated with other sulphides and in part alone*. *Less commonly it is associated with chalcopyrite or galena; in most of these occurrences, chalcopyrite and galena are associated with pyrite, either as inclusions or fracture-filling patches. Also widespread but not abundant are disseminated, isolated, small grains in sphalerite. A few free grains of native gold are present. One grain of native gold occurs in sericite. No native gold was seen in quartz. Grain size of native gold is mainly from 0.01- 0.05 mm, with a few grains up to 0.15 mm long. Grains smaller than 0.007 mm in size are not abundant and commonly occur near larger grains of native gold, mainly as inclusions in pyrite.*"

Six samples (type and locations not identified) were submitted to Vancouver Petrographics Ltd. in 2007. They are described by Leitch, (2007) as being "*strongly to intensely silicic/phyllic/advanced argillic altered and veined felsic volcanic rocks. Alteration locally obscures the original rock type, especially where it is associated with brecciation and significant to pervasive silicification and comb or cockade-textured, vuggy to drusy quartz veining.*"

A second suite of 14 samples, taken from core holes, was later submitted to Vancouver Petrographics Ltd. in 2007. Seven or eight of the samples were described as pre-mineral hypabyssal quartz latite porphyries; two as being "micro diorite" and four as "late" dikes of latite to trachyandesite composition (Leitch, 2007). Alteration ranges from propylitic through transitional propylitic/potassic to potassic.

A lithostructural Interpretation using satellite imagery was conducted by Technologies Earthmetric Inc., Montreal, Quebec, Canada on the Tahuehueto Project and surrounding areas for Soho in 2007 (Moreau, 2006). A series of maps at variable scales show interpreted regional and local structural features, interpreted veins and altered areas, along with target areas for exploration generated from

the structural interpretation. Although of interest, Altaley has not specifically targeted drill holes based on this data.

(5) Drilling

A substantial amount of drilling has been completed on the Tahuehueto project by Altaley in 2004 through 2008, and in 2011, for a total of 252 holes and 48,260.22 m drilled. Of the Altaley holes, 215 were cored drill holes, and 37 were reverse circulation (RC) holes, with the cored drill holes representing 85% the total footage. Of the Altaley core drilling three quarters is HQ size and one quarter is NQ size. The bulk of the drilling took place during successive campaigns in a four-year period from December 2004 to August 2008. Footage completed during this time comprises 98% of the footage drilled by Altaley. No drilling has taken place on the property since Altaley completed four holes in 2011.

The only drilling known to have taken place prior to Altaley's involvement was conducted by Mexican Government organization Consejo de Recursos Minerales, (now known as SGM) in the early 1980s. SGM drilled 2,451.27 m in 28 surface and underground drill holes. Altaley has not been able to obtain drill logs, collar locations, or results from this drilling.

Table 10-1 Summary of Drilling by Year, Operator and Type

Year	No. of Holes	Length (m)	Drill Hole Names	Group	Type	Group No. of Holes	Group Length (m)
1980s	15	2,026.87	Unknown	SGM	Core	28	2,451.27
	13	424.40			UG		
2004	1	70.10	RC-001	Altaley	RC	37	3,668.26
2005	36	3,598.16	RC-002 to RC-034*				
	36	4,953.88	DDH05-001 to DDH05-036		Core	215	44,591.96
2006	32	7,575.35	DDH06-037 to DDH06-064‡				
2007	74	16,219.63	DDH07-065 to DDH07-138				
2008	69	14,864.75	DDH08-139 to DDH08-207				
2011	4	978.35	DDH11-208 to DDH11-211				
Total	**280**	**50,711.49**		**Altaley Total**		**252**	**48,260.22**

* Including holes RC-006A, RC-008A and RC-028A. ‡ Including holes DDH06-037A, DDH06-042A, DDH06-049A and DDH06-051A.

The only drilling known to have been undertaken prior to Altaley's involvement at Tahuehueto was conducted by Consejo de Recursos Minerales (SGM). Although 28 surface and underground drill holes were reportedly drilled on the El Creston and Cinco de Mayo structures (Consejo de Recursos Minerales, 1983b), Altaley was unable to obtain drill logs, collar locations, or results from this drilling, and it is not known if this information still exists.

According to the Consejo de Recursos Minerales (1983b), 15 angle holes totaling of 2,026.87 m were drilled from the surface using Longyear 34 and Longyear 24 rigs. Six of these holes, totaling 813.17 m, were drilled at El Rey; six more, totaling 858.15 m, were drilled at Cinco de Mayo; one 131.60 m hole

was drilled at El Creston; and two holes, totaling 223.95 m, were drilled at Tres de Mayo. An additional 13 holes, for a total of 424.40 m, were reportedly drilled underground with a Pack Sack JKS25. Four of theseholes (119.20 m) were drilled at El Rey; seven (234.50 m) were drilled at Cinco de Mayo; and two (70.70 m) were drilled at El Creston.

Altaley first began drilling at Tahuehueto in December 2004 and completed 37 RC holes (RC-001 to RC034, including RC-006A, RC-008A, and RC-028A) by July 2005; Six holes were drilled at Cinco de Mayo, three at El Catorce, three at Texcalama and the remaining 25 holes at El Creston. Dateline Internacional, S.A. de C.V. of Hermosillo, Mexico was the drill contractor for this program. The RC holes were drilled at various inclinations from 45 to 70 degrees. All but five of these holes were drilled to the northwest or to the north.

The RC rig was demobilized and replaced by an LF 70 core rig from Mexcore, S.A. de C.V. ("Mexcore") in June 2005 (Soho, 2005c). A total of 50 core holes were drilled with this rig from June 2005 to July 2006; 36 of these holes were drilled in 2005, two at El Catorce, and the remainder at El Creston. The holes were drilled at various inclinations from 45 to 80 degrees. The dominant drilling direction was to the west and northwest.

Altaley expanded its core drilling to two rigs in August 2006, a UDR 200 and a JT 3000 rig from Major Drilling de Mexico, S.A. de C.V. ("Major"). The two Major rigs completed 76 holes before their contract terminated in July 2007, DDH06-49 through DDH06-064 (including DDH06-051A), DDH07-065 through DDH07-121, and DDH07-123. A total of 32 holes were drilled in 2006, 13 at El Creston, seven at El Catorce, six at El Rey, four at El Perdido, and one each at Santiago and Texcalama. Orientations of the holes varied from 45 degrees to vertical, with the predominant drilling direction to the northwest.

Core drilling resumed in August 2007 with a Longyear 38 rig contracted through Tecmin Servicios, S.A. de

C.V. ("Tecmin") of Zacatecas, Mexico. Tecmin drilled 15 holes through January 2008, including DDH07-122, DDH07-124 through DDH07-126, and DDH07-128 through DDH07-138. Major drilled the remaining 58 holes, with the exception of DDH07-127. A total of 74 holes were drilled in 2007, 32 at El Creston, 14 at El Perdido, 13 at Cinco de Mayo, eight at El Catorce and seven at Santiago. The orientations of the holes varied from 45 to 75 degrees, dominantly to the northwest.

After attempts at establishing road access and drill sites at the intersection of the El Creston and El Perdido structures failed due to extremely steep topography, Altaley developed ten remote drill sites and drilled one core hole (DDH07-127) using a fly-capable rig purchased by Altaley (Soho, 2007d). The rig was transported to the drill pad by helicopter and operated by Altaley.

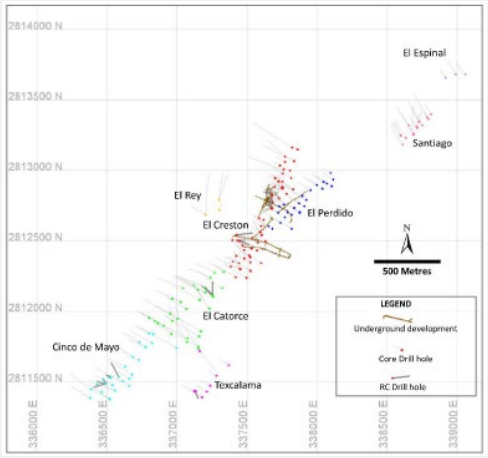
At the end of 2007, Altaley contracted with Falcon Perforaciones Mexico, S.A. de C.V., who began core drilling in January 2008 (Soho, 2007g). During 2008, an additional 69 core holes were completed before drilling was shut down in August 2008. Drilling took place in seven different areas in 2008, including holes in the following areas: 17 at El Catorce, 14 at El Perdido, 10 at Cinco de Mayo, nine at El Creston, nine at Santiago, seven at Texcalama and three at El Espinal. All holes were drilled in a northwesterly direction, with inclinations that varied from 45 to 70 degrees.

Four holes were drilled by Tecmin in 2011 including, three in Cinco de Mayo, and one in El Creston. All were inclined at 50 degrees and drilled in a northwesterly direction.

Figure 10-1 shows the locations of the drill collars within the various project areas, with the trace orientations for the core and RC drill holes, along with the projected trace of the underground development. Table 10-2 is a summary of drilling by area and by core or RC type, as completed by Altaley. All of the core rigs were skid-mounted.

Seventeen of the Mexcore holes, including DDH05-004 through DDH05-011, DDH05-026 through DDH05- 031, DDH05-034, DDH05-035 and DDH05-036, as well as hole DDH07-127 drilled by Altaley's fly rig, were drilled entirely with NQ core. The remaining holes were drilled with HQ core, which was reduced to NQ when required by ground conditions. Of the Altaley drilling, 34,381 m, or 77% of the total footage drilled, was HQ core size (6.35 cm diameter), 9,362 m, or 21%, was NQ core size (4.76 cm diameter), and 849 m, or 2%, was casing in the upper, unmineralized portions of the holes that was not recovered, logged, sampled or assayed.

Figure 10-1 Plan of Altaley Core and RC Drilling by Area



The drill-hole collar locations were surveyed by a variety of methods. A total of 192 of the holes were surveyed using a differential GPS instrument; the elevations for six of these holes were assigned by PhotoSat using photogrammetry, and the elevations for three of the holes were assigned by Altaley using the project topography. Total station equipment was used to survey 30 holes. Seven holes (six used in the resource estimation) were surveyed using handheld GPS, and 17 (16 used in the resource estimation) were surveyed by chain-and-compass.

Core holes drilled in 2005 were surveyed with a Tropari, Reflex EZ-SHOT, or Flexit. All core holes drilled in 2006 were surveyed with a Flexit, and 2007 and 2008 core holes were surveyed with either a Flexit or a Reflex EZ-SHOT. Surveys were typically taken every 50 metres downhole. The down-hole survey data indicate that the hole deviations are typically minor, usually steepening by less than two degrees.

A total of 26 core holes have no down-hole survey data. Nine of these holes were abandoned or not assayed, some are relatively short, and one is located outside of the resource modeling area. No RC holes have down-hole surveys.

Altaley reports the core handling procedures as follows. The core is laid out on logging tables that can accommodate up to 60 boxes of core. The core is re-assembled, washed by technicians, and a geologist reviews the core blocks for significant recovery or re-assembly problems. Technicians then measure RQD and recovery. Geologists log the core, mark sample intervals, and draw cut lines using a wax crayon. After logging, the core is photographed with the sample tags in place.

QP Titley was provided with a drill hole database that included collar, survey, and geology data tables. The resources reported in this report were estimated using the Altaley database, which includes a total of 252 holes drilled by Altaley at Tahuehueto from 2004 to the end of 2008, including the four holes drilled in 2011. This includes 37 RC holes and 214 cored drill holes (Table 10-1).

Table 10-3 Tahuehueto Resource Drilling Summary

RC		Core		Total Drill Holes	Total Meters
No	Meters	No	Meters		
37	3,668	215	44,592	252	48,620

Most of the holes were angled towards the northwest in order to cut the southeast-dipping mineralized structures, although the challenging topography hindered drill pad locations and many of these holes were not strictly orthogonal to the structures. Several holes, especially at El Creston, were collared in the footwall and angled back towards the structures, which yields intercepts significantly in excess of true thicknesses.

The drill hole database used for the Tahuehueto Mineral Resource estimation is summarized in Table 10- 3 and Table 10-4. Figure 10-3 shows a plan map of the Tahuehueto project area with the surface projection of the drill holes. In addition to the drill hole information, the project database includes assays for a total of 1,788 underground samples, including 88 from the Cinco de Mayo workings, 450 from El Rey, and 1,250 from El Creston. Table 10-5 lists the drillholes that were not sampled or assayed in the Tahuehueto database.

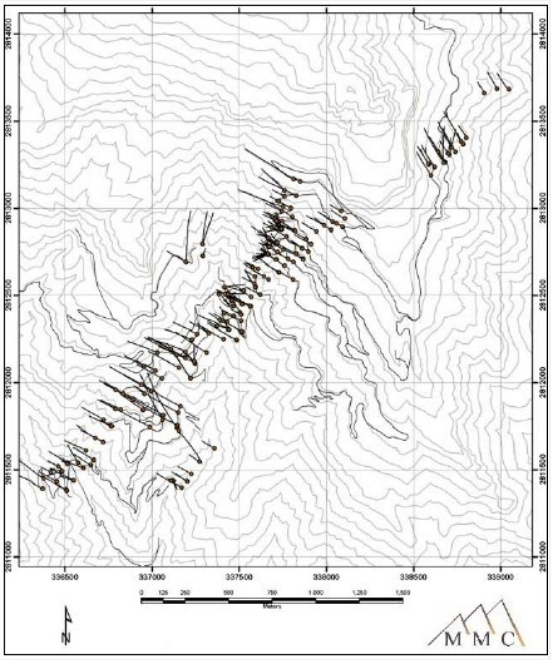
Table 10-4 Summary of Drilling Database used for Resource Estimation

Item	Value
Number of Holes	252
Total Length (m)	48,260
Average Length (m)	192
Meters Sampled & Assayed	21,839
Drill hole Samples with Assays	19,109
Core Holes with Downhole Surveys	189
RC Holes with Downhole Surveys	0

Table 10-5 Drill Holes with No Samples or Assays

Year	Area	Drill Hole	Total Depth (m)	Notes
2005	Creston	DDH05-004	111.86	Not Assayed
	El Creston	DDH05-026	166.73	Not Assayed
		DDH05-036	17.38	Abandoned
	Texcalama	RC-011	3.05	Abandoned
2006	El Creston	DDH06-045	66.14	Not Assayed
	El Rey	DDH06-049	12.20	Redrilled as DDH06-49A
	El Creston	DDH06-051	24.00	Redrilled as DDH06-51A
2007	El Perdido	DDH07-079	46.65	Abandoned
	El Creston	DDH07-108	50.50	Abandoned
		DDH07-110	73.15	Not Assayed
		DDH07-123	72.15	Not Assayed
		DDH07-124	68.40	Not Assayed
2008	El Creston	DDH08-153	27.45	Abandoned
	El Perdido	DDH08-188	69.15	Not Assayed
		DDH08-202	16.80	Abandoned

Figure 10-3 Tahuehueto Drill Hole Locations and Down Hole Traces and Topography



The Altaley drilling and sampling programs were carried out in a proficient manner consistent with industry standard practices at the time the programs were completed. The arrangement, alignment and depth of drilling is suitable for the exploration and delineation of the deposit targets as modeled. Altaley initiated a seven-month RC drill program in late 2004 that provided valuable early-stage exploration information on several deposit targets at Tahuehueto. This work was immediately followed by significant HQ and NQ core drilling programs over the next three years, and in 2011, that now comprises 85% ofthe Altaley footage. Of the core drilling, 77% is HQ size, 21% is NQ size and the remaining 2%, although un- recovered, is in the upper portion of the holes well outside the deposit target areas. No significant factors of drilling or sampling that impact the accuracy and reliability of the

results were observed. QP Eric Titley considers the drill programs to be reasonable and adequate for the purposes of Mineral Resource estimation.

(6) Sampling, Analysis and Data Verification

The Tahuehueto database of Altaley includes over 20,000 samples from cored drill holes, RC drilling and underground channel samples. Underground adit and cross cut sampling programs of took place in 1997, and from 2004 through 2006. Drill hole sampling programs took place from late 2004 through 2008 and in 2011. Assayed samples in the Altaley database include, 15,266 from core drilling, 2,714 from RC drilling and 2,436 from underground adits and cross cuts. Additionally, over 1,700 control samples that were included with the sampling and analytical programs and used to monitor quality control and quality assurance (QAQC) are also in this database. The overall proportion of regular samples is 75% core, and 13% RC and 12% from underground. Control samples, including blanks and standards, account for almost 8% of the total number of samples analyzed.

Qualified Person Eric Titley believes that the drill core, RC and underground sampling programs of Altaley provided samples that are sufficiently representative and of sufficient quality for use in the Mineral Resource estimation discussed in Section 14.

Table 11-1 summarizes the sample preparation and analytical laboratories and methods used on various types of Altaley samples by year processed.

Table 11-1 Summary of Sampling, Sample Preparation and Analysis of Altaley Samples by Year

Year	Sample Type	Sample Preparation & Analytical Laboratories	Analytical Methods
1997	Underground channel	ALS Hermosillo, Son., preparation ALS North Vancouver, BC analysis SGS and Atocha laboratories for analysis, locations unknown	Au, Ag, Cu, Pb & Zn, methods unknown.
2004 2005	RC chips Underground channel	ALS, Guadalajara, Jal. preparation ALS North Vancouver, BC analyses	Au-, Ag-GRA21 – fire assay gravimetric finish Ag, Cu, Pb, Zn-AA62 – 4-acid, AAS ME-ICP61 – 4-acid, 27 element ICP
2006	Underground channel and surface	SGS, Durango, Dgo. preparation SGS, Toronto, ON analysis	Methods unknown
2005 2006	Drill core	SGS, Durango, Dgo. preparation SGS, Toronto, ON analysis	Au FAA313, FAG303 – AAS or grav. finish Ag AAA50 – Na2O2 fusion AAS Cu, Pb, Zn-ICA50 – Na2O2 fusion ICP ICA40B – 4-acid, 31 element ICP
2005 2006 2007	Drill core	Inspectorate, Durango, Dgo. preparation Inspectorate, Sparks, NV analysis	Au FA-AA, Au, Ag-Grav – AAS or grav. finish Ag, Cu, Pb, Zn Assay – Aqua Regia, AAS finish 30 Element ICP – Aqua Regia, ICP finish
2005 2006 2007 2008 2011	Drill core	ALS, Guadalajara, Jal. preparation ALS North Vancouver, BC analysis	Au-AA23, Au-GRA21 FA, AAS or grav. finish Ag, Cu, Pb, Zn-AA62 – 4-acid, AAS Ag-GRA21 FA, AAS or gravimetric finish ME-ICP61 – 4-acid, 27 element ICP

SGM collected a total of 301 surface samples, 3,009 underground samples, and 116 drill samples during their exploration programs at the El Rey, Cinco de Mayo, El Creston, Texcalama, and Tres de

Mayo zones (Consejo de Recursos Minerales, 1983b). No further details of these programs, including the sample and drilling locations corresponding results, are known to Altaley.

Castle collected 459 surface chip and underground chip-channel samples in 1994; 247 from the El Creston structure, 21 from the Cinco de Mayo structure, and 191 from other sites on the property (Brown, 2004). Altaley does not have the results or any further details on the sample locations or sampling metho

In 1997, Altaley undertook channel sampling in ten of the underground levels on the El Creston vein. Approximately 1,200 underground and surface channel samples were taken from the El Creston zone, with a few samples taken at Dolores, Cinco de Mayo and Los Burros.

Channel samples were taken with chisel and hammer, and represent no more than a 1.5 m sample width. Channel samples taken in crosscuts were generally 1.5 m in width, while channel samples from drifts along the mineralized structure were from 1.0 to 1.5 m widths, depending on the width of the drift. Along the drifts, channel samples were taken at 2.5 m centers. Forty-two check panel samples were taken over channel sample sites to confirm the analytical results. Select channel and panel samples were then re- assayed from reject material to check laboratory accuracy (Brown, 2004).

Drift channel samples were taken across the back (roof), perpendicular to the mineralized zone, while crosscut channel samples were taken at waist height on the crosscut wall.

Altaley undertook detailed underground sampling in 2004 of the Cinco de Mayo South, Cinco de Mayo North 1, Texcalama 1, 2, and 3 adits to determine possible extensions of the El Creston zone (Soho, 2004b). Sample locations, at 2.5 m intervals, were delineated by straight chain and demarked with spray paint to allow for further reference and repeat sampling. All samples within adits (as opposed to crosscuts) were acquired across the back (ceiling) of the adit in a continuous hammer and chisel channel sample. The entire width of the adit was sampled. If the adit width exceeded 2 m, the sample was split into two or more samples. Where crosscuts were encountered, several samples were collected across the entire crosscut width, and each individual sample did not exceed 2 m in width. Each sample was a continuous hammer and chisel channel sample across the inward wall of the crosscut.

The channel sampling technique for the adit sampling program consistently utilized a 4 lb short-handled sledge hammer and chisel to cut a channel continuously across the adit back or crosscut walls. Attention and best effort was paid to acquiring consistent volumes of material across each sample. To ensure that sufficient representative material was acquired, each sample averaged in the 2.5 to 3 kg range.

All samples were labeled, bagged and sealed with cable ties on location. The samples were then transported by burro to the camp office where they were sorted, grouped and sealed in rice sacks for transportation to Durango by company truck. At Durango, the samples were transferred to the company's subcontractor, Engineer Artemio Terrazas, for immediate delivery to the ALS Minerals ("ALS", formerly ALS Chemex) sample preparation laboratory in Guadalajara, Mexico. Once prepared, ALS shipped the samples to the ALS laboratory in North Vancouver, BC for analysis.

In 2005-2006, Altaley undertook additional underground and surface sampling at the Santiago, Pitallo, Espinal, and El Rey mineralized zones (Soho, 2006a and 2006d). The channel samples did not exceed a maximum length of 1.5 m, with the limits of sampled material respecting geological contacts. The channels were cut across the structure at El Rey at a 330° azimuth, and individual samples were collected across lengths of 1.0 m or less. Over 150 m of vein structure was sampled (Canova, 2006a). The 450 underground channel samples taken from the El Rey adit in 2005 were sent to the ALS sample preparation laboratory in Guadalajara, and the prepared pulps sent to the ALS laboratory in North Vancouver, BC for analysis. Additional samples taken from the Altaley 2005 and 2006 surface and underground channel sampling programs are reported in Wilson et al (2017) at the Santiago, Pitallo, Espinal, and El Rey mineralized zones. They were prepared at the SGS facility in Durango and analyzed at the SGS laboratory in Toronto.

Channels were cut every 4 m across the structure that trends 060° and dips 80° to the southeast with widths of 1.0 m to 2.0 m. A total of 38 channels were cut across the structure. The structure is generally 1.8 m wide and consists of quartz-carbonate veining with visible mineralization of sphalerite, galena, and weak chalcopyrite. The structure cuts across a grey, fine to medium grain granodiorite that is massive. The structure is narrow, linear, and contains gold, silver, lead and zinc. (Canova, 2006a).

Locations were surveyed in by straight chain and Brunton compass, and tied to the adit portals. The resulting coordinates for the channel samples were then calculated based on the surveyed portal location data at that time. The sampling conducted along the adit entry tunnels took place along the eastern walls of the adit at a height of approximately 1.4 m. In the vein portion of the adit, samples were taken along the back of the drift (adit ceilings). The width of the channel for the continuous chip / channel samples was approximately 15 cm. Sample size varied due to variable sample lengths. Unlike the first sampling conducted in Cinco de Mayo, that were channels across the entire adit backs (ceilings) unless the adit width exceeded 2 m, the El Rey sampling was broken into contiguous footwall, vein and hanging wall segments (Gustin, 2008).

A grid was established on the Santiago structure in early 2006 oriented with a 060° bearing along the Santiago structure and covering a strike length of more than 180 m (Canova, 2006b). Eight channels were cut across the structure. A total of 124 samples were collected, and the results indicated that the width of the structure was between 7 and 16.5 m.

The overall average underground channel sample length of samples in the Altaley database is 1.2 m.

Altaley drilled 37 RC holes at Tahuehueto, from December 2004 through July 2005. RC chip samples from 1.52 m (5 ft) intervals down the 10.2 cm (4 inch) diameter RC holes were collected from a cyclone splitter at the rig with about 30 kg of material recovered per sample. Every 1.52 m run was split into quarters with a riffle splitter. A one-quarter portion representing the sample for analysis was bagged and sealed for shipment to the assay laboratory. The remaining three-quarters of reject material was bagged, sealed, and stored at the project's field facilities. For every fifth sample, a duplicate sample (equal to one quarter of the total sample) was collected for quality-control purposes. At the field office, samples were recorded, sorted into batches and sealed in large rice sacks. Altaley personnel drove the samples from the project site to Durango, where they were shipped by secure courier to the sample preparation facilities of ALS in Guadalajara, Mexico.

Altaley began core drilling in mid-2005 using HQ and NQ size core, depending on drilling conditions. Overall, 77% of the Altaley footage drilled was HQ core, a size that provides a 78% greater core volume per unit length drilled than does NQ core.

Sample lengths varied from 0.5 to 2.0 m, averaging 1.2 m overall. Core samples were cut in half longitudinally with a rock saw at the project site, with one-half sent for assay and the remaining half boxed, sealed and stored at the project site. Samples were recorded, batched, and sealed in large rice sacks at the field office, and then shipped by Altaley staff to the sample preparation facilities. The facilities used are as follows: SGS Minerals Services ("SGS") in Durango in 2005 and 2006 (Soho, 2007a), Inspectorate de Mexico S.A. de C.V. ("Inspectorate") in Durango in 2007 through to September 2007 (Soho, 2007a), and the ALS sample preparation facility in Guadalajara from September 2007 to June 2008, and in June 2011, (Soho, 2007e).

Altaley reports that the core was generally sampled over regular intervals that varied from 30 cm to 1.50 m, with sample intervals coinciding with major lithological boundaries and veins. In intervals where core recovery was less than 70%, samples within a 3.05 m drill run were sampled as the full 3.05 m interval. Samples were split lengthwise with a diamond saw, with one half taken for assay and the remainder retained for future reference. One blank sample was inserted at random every 25 samples and was placed after a highly mineralized zone, if possible. One standard sample was inserted into each batch of 24 core samples.

The following description of the chain of custody procedures for the drill core and samples for holes DDH07-077 through DDH08-207 was provided by Altaley. Core was in the custody of the drill crew until Altaley geologists picked it up twice a day at about 9:00 AM and 6:00 PM. The core was taken to a fenced core-logging facility, where it was stacked until logging and sampling took place. At the end of each day, the bagged samples were moved into the portal of an adit near the core shed, which was secured with a locked gate. Samples were shipped from the project site to Durango in Altaley vehicles by Altaley personnel. In Durango, samples were shipped to ALS in Hermosillo by Paqueteria y Mensajeria en Movimienito (a secure courier with a long-term contract with ALS).

Samples prepared at the SGS facility in Durango were processed under SGS code PRP-89. The samples were logged in, dried, crushed to 80% passing 2 mm (10 mesh), a 250 g riffle split subsample taken, and the resulting subsample pulverized to better than 85% of the sample passing 75 micron (200 mesh).

Samples shipped to the Inspectorate sample preparation facility in Durango were logged in, dried, crushed to 75% passing 2 mm, a 250-300 g riffle split subsample taken, and the resulting subsample pulverizedto better than 95% of the sample passing 89 micron (150 mesh).

Samples prepared at the ALS facility in Guadalajara were prepared under ALS code PREP-31. The samples were logged in, dried, crushed to better than 70% passing 2 mm, a 250 g riffle split subsample taken, and the resulting subsample pulverized to better than 85% of the sample passing 75 micron.

The Altaley RC chip samples were prepared at the ALS sample-preparation facilities in Guadalajara and the pulps were shipped to the ALS laboratory in North Vancouver, BC for analysis (Soho, 2005a). ALS was ISO 9001:2000 registered at the time of analysis.

At ALS North Vancouver, gold analysis was conducted by fire assay ("FA") fusion of a 30 g sample followed by a gravimetric finish (ALS method Au-GRA21). Silver, copper, lead, and zinc and 23 additional elements were analyzed by four-acid digestion (HF-HNO3-HClO4-HCl) followed by an inductively coupled plasma atomic emission spectroscopy ("ICP-AES") finish (method ME-ICP61).

Over-limit silver, copper, lead, and zinc results (100 ppm for Ag and 10,000 ppm for the base metals) were re-assayed by four-acid digestion, with an atomic absorption spectroscopy ("AAS") finish (method AA62). Approximately 2% of the samples were also analyzed for silver by 30 g fire assay with a gravimetric finish (method Ag-GRA21). Specifications of the ALS analytical methods are listed in three tables, precious metal assays in Table 11-2, base metal assays in Table 11-3, and multi-element analyses in Table 11-4.

Table 11-2 ALS Precious Metal Fire Assay Analytical Methods

Element	Symbol	Method Code	Instrument	Sample Mass (g)	Units	Lower Limit	Upper Limit
Gold	Au	Au-AA23	AAS	30	ppm	0.005	10
Gold	Au	Au-GRA21	Gravimetric	30	ppm	0.05	1000
Silver	Ag	Ag-GRA21	Gravimetric	30	ppm	5	10,000

Table 11-3 ALS Base Metal Assay Analytical Methods

Element	Symbol	Method Code	Digestion	Instrument	Sample Mass (g)	Units	Lower Limit	Upper Limit
Copper	Cu	Cu-AA62	Four-acid	AAS	0.2 to 2.0	%	0.01	50
Copper	Cu	Cu-OG62	Four-acid	ICP-AES	0.4	%	0.001	40
Lead	Pb	Pb-AA62	Four-acid	AAS	0.2 to 2.0	%	0.01	30
Lead	Pb	Pb-OG62	Four-acid	ICP-AES	0.4	%	0.001	20
Zinc	Zn	Zn-AA62	Four-acid	AAS	0.2 to 2.0	%	0.01	30
Zinc	Zn	Zn-OG62	Four-acid	ICP-AES	0.4	%	0.001	30

Table 11-4 ALS Four-Acid Digestion Multi-Element Method ME-ICP61

Element	Symbol	Units	Lower Limit	Upper Limit
Silver	Ag	ppm	0.5	100
Aluminum	Al	%	0.01	25
Arsenic	As	ppm	5	10,000
Barium	Ba	ppm	10	10,000
Beryllium	Be	ppm	0.5	1000
Bismuth	Bi	ppm	2	10,000
Calcium	Ca	%	0.01	25
Cadmium	Cd	ppm	0.5	500
Cobalt	Co	ppm	1	10,000
Chromium	Cr	ppm	1	10,000
Copper	Cu	ppm	1	10,000
Iron	Fe	%	0.01	25
Potassium	K	%	0.01	10
Magnesium	Mg	%	0.01	15

Element	Symbol	Units	Lower Limit	Upper Limit
Manganese	Mn	ppm	5	10,000
Molybdenum	Mo	ppm	1	10,000
Sodium	Na	%	0.01	10
Nickel	Ni	ppm	1	10,000
Phosphorus	P	ppm	10	10,000
Lead	Pb	ppm	2	10,000
Sulphur	S	%	0.01	10
Antimony	Sb	ppm	5	10,000
Strontium	Sr	ppm	1	10,000
Titanium	Ti	%	0.01	10
Vanadium	V	ppm	1	10,000
Tungsten	W	ppm	10	10,000
Zinc	Zn	ppm	2	10,000

Core holes DDH05-001 through 05-031 and DDH05-033 through DDH06-048 were analyzed at the SGS laboratory in Toronto, Canada; SGS was an ISO/IEC 17025 and ISO/IEC 9002 registered laboratory at the time of the analysis. The half core samples were sent for sample preparation to the SGS facilities in Durango, Mexico, and the prepared pulps were shipped to the SGS Toronto, ON laboratory. Gold grade was determined by fire assaying of 30 g charges and finishing with AAS (SGS method FAA313); over-limit (>10 g/t) analyses were completed by fire assaying 30 g charges and completing with gravimetric finish (method FAG303). Table 11-5 lists the specifications of the SGS precious metal analytical methods.

Silver, copper, lead, and zinc and 27 additional elements were determined for all samples using a four-acid digestion method followed by inductively coupled plasma optical emission spectroscopy ("ICP-OES", similar to ICP-AES) finish (method ICP40B). The elements analyzed and the detection limits of this method are listed in Table 11-6.

Silver over limits (>10 ppm) for samples from holes DDH06-037 through 06-048 were determined by AAS after three-acid digestion (method AAS21E); over-limits for the earlier holes were by a similar four-acid digestion method AAS40E. Methods AAS21E and AAS40E both had an upper threshold of 300 ppm silver. Samples exceeding this limit were analyzed by method AAA50. AAS40E and AAS21E analyses for silver were also completed on a number of the samples that were below the range of the ICP40B over-limits.

Copper, lead, and zinc over-limits results were determined by sodium peroxide fusion followed by an ICP- OES finish, (method ICA50), reported in percent. The specifications of the SGS base metal assay methods are listed in Table 11-7.

Table 11-5 SGS Precious Metal Assay Analytical Methods

Element	Symbol	Method Code	Instrument	Sample Mass (g)	Units	Lower Limit	Upper Limit
Gold	Au	FAA313	AAS	30	ppb	5	10,000
Gold	Au	FAG303	Gravimetric	30	ppm	0.05	1,000
Silver	Ag	AAS21E	Three-acid	2	ppm	0.3	300
Silver	Ag	AAS40E	Four-acid	2	ppm	0.3	300
Silver	Ag	AAA50	Four-acid	1	g/t	10	10,000

Table 11-6 SGS Four-Acid Digestion Multi-Element Method ICP40B

Element	Symbol	Units	Lower Limit	Upper Limit
Silver	Ag	ppm	2	100
Aluminum	Al	%	0.01	25
Arsenic	As	ppm	3	10,000
Barium	Ba	ppm	1	10,000
Beryllium	Be	ppm	0.5	1000
Bismuth	Bi	ppm	5	10,000
Calcium	Ca	%	0.01	25
Cadmium	Cd	ppm	1	500
Cobalt	Co	ppm	1	10,000
Chromium	Cr	ppm	1	10,000
Copper	Cu	ppm	0.5	10,000
Iron	Fe	%	0.01	25
Potassium	K	%	0.01	10
Lanthanum	La	ppm	0.5	
Lithium	Li	Ppm	1	
Magnesium	Mg	%	0.01	15

Element	Symbol	Units	Lower Limit	Upper Limit
Manganese	Mn	ppm	2	10,000
Molybdenum	Mo	ppm	1	10,000
Sodium	Na	%	0.01	10
Nickel	Ni	ppm	1	10,000
Phosphorus	P	%	0.01	10
Lead	Pb	ppm	2	10,000
Sulphur	S	%	0.01	10
Antimony	Sb	ppm	5	10,000
Strontium	Sr	ppm	0.5	10,000
Titanium	Ti	%	0.01	10
Vanadium	V	ppm	2	10,000
Tungsten	W	ppm	10	10,000
Yttrium	Y	ppm	0.5	
Zinc	Zn	ppm	0.5	10,000
Zirconium	Zr	ppm	0.5	

Table 11-7 SGS Base Metal Assay Analytical Methods

Element	Symbol	Method Code	Digestion	Instrument	Sample Mass (g)	Units	Lower Limit	Upper Limit
Copper	Cu	ICA50	Na2O2	ICP-OES	0.2	%	0.004	40
Lead	Pb	ICA50	Na2O2	ICP-OES	0.2	%	0.007	30
Zinc	Zn	ICA50	Na2O2	ICP-OES	0.2	%	0.004	30

Inspectorate analyzed the core samples from drill holes DDH05-032 and DDH06-049A through DDH07-121 in their Sparks, NV facility on pulps prepared at the Inspectorate sample preparation facility in Durango, Mexico. Gold was analyzed by 30 g fire assay with an AAS finish (method Au-FAA); all results >3 g Au/t were re-assayed by 30 g fire assay with a gravimetric finish (method FAGRAV). Over 2,000 samples from 2005 and 2006 were analyzed for silver, copper, lead and zinc by an aqua regia digestion assay method with an AAS finish. A further 1,200 samples from these years were analyzed by an aqua regia digestion multi-element ICP-AES method that included determinations for silver, copper, lead and zinc, reported in ppm, and also included 26 additional elements. Over-limits samples by these two methods for silver, copper, lead or zinc concentrations >10,000 ppm were determined by an aqua regia digestion assay level method with an AAS finish reported in percent. A few silver analyses were also determined by 30 g fire assay fusion with an AAS finish to an upper limit of 200 ppm, and over-limit analyses on these silver samples were determined by 30 g fire assay fusion with a gravimetric finish.

Samples from core holes DDH07-122 through DDH08-207 were analyzed by ALS. Sample pulps were prepared at the ALS facility in Guadalajara, Mexico. The prepared sample pulps were first shipped by ALS to their analytical laboratories in Lima, Peru (Soho, 2007e), then to the ALS laboratory in Vancouver, Canada for analysis between September and December 2007; in January 2008 the pulps were once again being sent to the Lima laboratory (Soho, 2008a). The QP was not able to determine

which samples or which methods, were analyzed by the ALS facility in Lima, if any, as described (Soho 2007e and Soho 2009a), and which were analyzed by ALS North Vancouver, as the assay certificates and method codes do not provide this information. However, it is noted that all the assay certificates are signed by the ALS North Vancouver laboratory manager. Gold assays were first done on 30 g charges by fire assaying with an AAS finish (method Au-AA23); over-limit (>10 g/t) analyses were completed using the Au-GRA21 method described in Section 11.4.1. Silver, copper, lead, and zinc were analyzed by method OG62 (similar to AA62). Specifications for the various ALS analytical methods are listed in Table 11-2, Table 11-3 and Table 11-4.

The following description of the Altaley surface and underground channel sampling programs of 1997 is described in Wilson et al (2017). The work was conducted and supervised by three Canadian geologists, including Brown. Samples were prepared by ALS at their facility in Hermosillo, Mexico, and the pulps were sent to ALS laboratory in North Vancouver, BC, Canada for analysis (Brown, 2004), although Brown, 1998a, states that the 1997 channel samples were shipped directly to the Vancouver laboratory for both sample preparation and analysis. Brown (1998a) reports that samples were assayed for gold and a 30 element ICP package. Gold was initially assayed by fire assay with an AAS finish using a 30 g charge. Samples with gold above 12 g Au/t were re-assayed by one-assay-ton fire assay with a gravimetric finish. Samples with silver greater than 200 ppm were re-assayed by fire assay with a gravimetric finish. Samples with lead or zinc exceeding 50,000 ppm were re-assayed by atomic absorption using nitric-HCl-acid digestion. For 475 underground channel samples taken at El Creston and 311 samples taken at El Perdido by Altaley in 1997, SGS is listed as the analytical laboratory for the silver, gold, copper, lead and zinc analysis. The analytical methods for the SGS analyses are unknown. For a further 66 underground channel samples taken in 1997 at El Creston, Atocha is listed as the analytical laboratory for the silver, gold, copper, lead and zinc analysis. The location and the analytical methods of this laboratory are also unknown.

For Altaley's 2004 sampling program, samples were prepared by ALS at their sample preparation laboratory in Guadalajara, Mexico and the pulps were shipped to the ALS Vancouver laboratory for analysis.

Sampling of the Cinco de Mayo and Texcalama adits and gold was determined by fire assaying with an AAS finish. Samples with values exceeding the 10 g/t upper limit of the method were then assayed by fire assay with a gravimetric finish. In addition, analysis of a suite of an additional 33 elements, including silver, gold, copper, lead and zinc, was done by four-acid digestion ICP-AES (method ME-ICP61). Where the upper limits were exceeded for silver or base metal elements by the multi-element method, the samples were re-analyzed by an assay level a four-acid digestion AAS method. An appropriate standard was inserted at regular intervals in the sample series, and the laboratory performed duplicate analyses on every 40th sample in a run. In addition, the laboratory inserted a blank at the beginning of each run as well as standards at random intervals. For the Cinco de Mayo and Texcalama 1 and 2 adits, blanks and standards were inserted by Altaley into the sample sequence (every 20th sample) for assay quality control. For the Texcalama 3 adit, duplicate samples were taken every 20th sample (10th, 30th, 50th etc.) in addition to the above quality-control measures.

Altaley completed an underground and surface sampling program at the Santiago, Pitallo, Espinal, and El Rey mineralized zones in 2005 and 2006. Altaley reports that blank samples were inserted randomly within each series of 25 samples and standards were inserted every 25th sample during this program.

Pulps from the Altaley 2005 and 2006 surface and underground channel samples from the Santiago, Pitallo, Espinal, and some from the El Rey mineralized zones were prepared at the SGS facility in Durango. The pulps were sent to the SGS Toronto, ON laboratory for analyses.

Some samples were analyzed by more than one analytical method for silver, gold, copper, lead and zinc. In order to properly record all original assay data in the database, as well as to have unique fields for use in the resource estimation, gold, silver, copper, lead, and zinc fields were created in the database that are separate from the original raw assay data. These fields are assigned one of the assays for each of the five metals for any given sample based on a consistent hierarchy of analytical methods that considers which method of analysis is most appropriate for the grade range encountered. For example, gold and silver fire assay results with a gravimetric finish, typically run-on high-grade samples, are given a higher priority than fire assay results with an AAS finish. Single element "ore grade" or "over-limits" assay methods for copper, lead, and zinc are also assigned a higher priority than multi-element ICP analysis methods. Application of this hierarchy in the database was verified to have been correctly applied for the use of this information in this report.

Quality control samples including duplicate samples, analytical standards, and blanks were inserted by Altaley into the sampling streams of the drilling and sampling programs in a manner that is consistent with good industry practice, as described in the sampling sections of this report. The internal laboratory QAQC procedures that were documented for the main laboratories used, ALS, SGS and Inspectorate, were also reviewed, and deemed consistent with best laboratory practices at the time the analyses were performed.

Blank samples are used to test for cross contamination and sample sequencing issues between samples during sampling in the field, and in sample preparation and analysis at the analytical laboratory. A common form of cross contamination typically occurs during the sample preparation stages of crushing, splitting and pulverization. For this reason, coarse blanks are often used, as they are required to go through the same crushing, splitting and pulverization stages as the regular samples. To provide the most benefit, these blanks are placed immediately after well-mineralized samples in the sample stream to monitor for possible carry-over from one sample to the next, (from higher grade to lower grade in this case), in the processing sequence.

Altaley inserted nominal blank samples into the sample stream at Tahuehueto since drilling began in late 2004. The coarse blank material used is derived from an outcrop within the project area of post-mineral rhyolitic tuffs of the upper volcanic series that lies above the mineralized lower volcanic series rocks. Daniels (2007) reviewed the QAQC of the Altaley inserted blanks and standards at a relatively early stage of project development. This review indicated that about 1-2% of blank samples monitored had much higher than anticipated results for gold and base metals. Altaley was advised that these blanks contained high values for gold and base metals, and that follow up was recommended to determine if these results were due to sample mis-identification or data entry errors in the field, or if they resulted from actual cross-contamination in the laboratory. It is also possible that the some of the source rock material used, and described as a nominal blank, was not entirely homogenously low grade, and may be mineralized to some extent in some instances.

To increase the integrity of the sample handling process, from collection to shipment to assay, Altaley inserted standards in the sample stream at a rate of one standard and one blank for every 25 drill

samples. Most of the reference standards used were prepared by WCM Minerals ("WCM"), a division of WCM Sales, Ltd. of Burnaby, BC, Canada (Table 11-8). Reference standards are used to evaluate the analytical accuracy of the assay laboratory. Of the ten WCM standards used, six are gold only, three are silver, lead, zinc and copper standards, one is a gold, silver, copper, lead zinc standard, and one is a gold, silver copper standard. The use of the WCM standards, started with drill hole DDH05-032. Prior to that, Altaley inserted a number of other standards in their sampling programs. Information on these standards is poorly documented, and the results of this early part of the control sample insertion program are difficult to assess. QP Eric Titley considers the WCM standards employed since hole DDH05-032 to be in suitable grade ranges for monitoring the results of the Tahuehueto mineralized zones.

Table 11-8 WCM Reference Standards Used

Standard ID	Au g/t	Ag g/t	Cu %	Pb %	Zn %
CU135	5.93	31	0.18	-	-
PB109	-	30	0.50	1.47	4.16
PB117	0.31	52	0.59	2.22	1.46
PB129	-	23	0.28	1.24	2.00
PB130	-	83	0.25	0.72	1.44
PM409	1.13	-	-	-	-
PM416	2.06	-	-	-	-
PM419	1.97	-	-	-	-
PM424	1.17	-	-	-	-
PM914	10.40	-	-	-	-
PM416	2.06	-	-	-	-

Similar issues with some of the results of the Altaley inserted standards were identified in the QAQC review by Daniels (2007), as noted for the inserted blanks. The results for a considerable number of control samples for all elements fell outside the designated control limits, and the overall quality control failure rate was deemed unacceptably high. At the, time it was acknowledged that part of the high failure rate could be attributable to a general lack of good data entry and data management practices at the Tahuehueto site during the earlier stages of project development prior to 2007. QP Eric Titley was unable to determine if individual issues with any specific controls samples were fully resolved with respect to these standards and blanks. However, in discussion with Altaley, QP Eric Titley was advised that data entry and data labeling errors identified by Daniels, were corrected after this review, and that these changes were made in the Altaley database. Altaley also stated that this review triggered an increased level of care and diligence on the part Altaley, and that this was applied to subsequent portions of their sampling, analytical and QAQC programs.

A significant number of duplicate samples were taken by Altaley during their core and RC drilling and underground sampling programs. Duplicate types included analytical method type, assay pulp, coarse reject, half core and half channel sample duplicates, and also included within-laboratory and inter-laboratory duplicates and checks. QP Eric Titley considers the quality, quantity, type and results of the duplicate samples in the Altaley QAQC program to be suitable and appropriate.

QP Titley reviewed the sampling, preparation, security and analytical information, including sampling databases, analytical certificates, descriptions of sampling methods and procedures, security procedures, sample preparation, analytical methods and analytical QAQC information provided by

Altaley and reported on by previous workers. All aspects of these programs were deemed to be of a suitable standard.

QP Titley completed validation and verification procedures on the sample tables, raw assay results, QAQC tables and the resource database of Tahuehueto provided by Altaley. QP Titley requested and received 155 assay certificates for 102 core and RC drill holes representing 10,850 samples from the 2005, 2007, 2008 and 2011 drill programs of Altaley directly from ALS laboratories in North Vancouver, BC. The assay results received comprise approximately 50% of the total number of results used in the resource estimate. These results were imported and digitally compared with the corresponding results provided by Altaley for the regular samples. An additional 120 digital assay certificates provided by Altaley for 116 core and RC drillholes and underground channels from the 2004 through 2008 programs were also re-imported to the database from the assay certificates provided as an additional basis for comparison. The newly imported assay results from these certificates were directly compared with the existing assay results for the corresponding samples in the existing Altaley resource database.

Core drill hole DDH08-152 was not used in the resource estimate, and the absence of this 73.7 m long hole was reviewed. It was observed that an earlier, 24.36 m long hole (DDH-148) that was collared from the same drill pad with a location less than 1 m away. Similar mineralized zones were encountered in the top 10 m of both holes, and both holes are oriented at the same azimuth and dip, so the pair are essentially twinned holes. It was also noted during the comparison that 704 samples representing 914 m of sampled core from 25 drill holes were also not included in the Tahuehueto resource database. Review of sample certificate data revealed that all of these results were from previously unsampled sections of these holes that were sampled and analyzed in 2008, well after the original sampling had occurred. Of these holes, a section of DDH07-117 above 104 m downhole that was sampled in 2008 returned results indicating a moderately mineralized zone up to 4 m above the original 2007 samples. Other than this hole, and one sample in DDH07-114, none of the samples were >1 gold equivalent (as defined in section 15). It is recommended that the rationale for excluding the samples from these holes be discussed with Altaley geologists and reviewed prior to subsequent resource estimates.

A number of minor rounding errors in the assay results for various elements, presumably resulting from truncation of lower decimal places during data processing, were also noted in the Altaley database comparison. A few other errors in comparison of the imported assay certificates were noted, and none that were deemed substantial enough to have significant impact on the resource estimation.

The verification work conducted lends confidence to the veracity of Altaley database. In the QP's opinion the data is adequate for the purposes of mineral resource estimation.

(7) Mineral Processing and Metallurgical Testing

Tahuehueto mineralization has been analyzed in several metallurgical testing programs as well as several toll processing runs at an established flotation concentrator.

The first registered test was carried out in 1977 by the Comision de Fomento Minero (CFM) and the second was conducted by Westcoast Mineral Testing during 2009 and 2010. A third test was performed

by Altaley in order to verify the metallurgical parameters required to process, by flotation the El Creston and El Perdido mineralization. Detailed discussion of the historical metallurgical test work has been completed by Mr. Bill Pennstrom and reported under separate cover. For the sake of brevity, Mr. Pennstrom's test work discussion follows in Section 13.2.

Altaley processed ore via toll milling over a three-year period beginning January 2018 through December 2020. During the toll mill campaigns, 83.9 kt of zinc concentrate and 17.8 kt of lead concentrate. Concentrates were of suitable quality for sale resulting is a modest cashflow. This demonstrated that the processing of the Tahuehueto was feasible and help with the decision to complete construction of the processing facilities. A more in-depth discussion follows in Section 13.6

CFM, (currently referred to as Fideicomiso de Fomento Minero, FIFOMI) is a Government Institution that supports the mining industry with loans and technical assistance and with large and well equipped facilities for metallurgical test and process design. These metallurgic laboratories are now operated by the Mexican Geological Service.

The metallurgical testing was performed by CFM under request of the company Emijamex, S.A., a company with Japanese participation. This company tested a 150 kg sample from the El Creston and El Rey veins. The objective of this study was defining the parameters for designing a flotation process plant to process mineralization at 50 tpd.

The metallurgic research carried out included spectrographic qualitative assay, chemical qualitative assay, X-ray diffraction, chemical quantitative assay, mineralogy characterization, mill grinding indices development, and mill testing. In total 10 metallurgic tests were conducted using different parameters, reagents, PH, etc., in order to obtain the best recoveries and concentrates. The quantitative analysis of the sample is indicated in Table 13-1. The mineralogy obtained by CFM is shown in Table 13-2.

Table 13-1 Quantitative Analysis

Element	Assay	Unit
Au	3.00	g/t
Ag	53.00	g/t
An	6.40	%
Pb	3.50	%
Cu	0.24	%
Fe	4.80	%
S	4.64	%

Element	Assay	Unit
SiO_2	68.19	%
Al_2O_3	4.67	%
CaO	1.18	%
MgO	6.29	%
$CaCO_3$	1.23	%

Table 13-2 Sample Mineralogy

Mineral	%
Sphalerite	9.55
Galena	4.04
Chalcopyrite	0.7
Pyrite	1.33
Calcite	1.23
Quartz, etc.	83.15
Total	100

The mill particle size test results, indicates that below -65 mesh 82.7% of the Zn, 82.8% of the Pb and 80.5% of the copper are free and that a – 100 mesh grind size is required to meet grind size parameters for flotation.

Table 13-3 provides a summary of the 10 metallurgic tests that were carried out by CFM in order to define the best parameters for processing material from Creston and El Rey. The parameters recommended by CFM are from test number 2 and are shown in Table 13-4.

Table 13-3 CFM Metallurgic Test Work Summary

Description		Test Number																			
		1		2		3		4		5		6		7		8		9		10	
Concentrate		Pb	Zn	Pb	Zn	Pb	Zn	Pb	Zn	Pb	Zn	Pb	Zn	Pb	Zn	Pb	Zn	Pb	Zn	Pb	Zn
Assays	Au g/t	32.0	1.7	31.8	2.4	24.5	4.2	12.4	3.3	17.1	2.0	32.5	3.7	34.5	4.1	24.0	5.6	22.4	3.5	19.1	3.0
	Ag g/t	602.0	123.0	782.0	72.0	480.0	108.0	273.0	70.0	345.0	115.0	739.0	120.0	746.0	50.1	554.0	145.0	488.0	94.0	473.0	117.0
	Pb%	43.6	0.1	45.0	0.4	28.0	0.4	11.5	0.3	22.0	0.3	41.0	0.4	44.0	0.4	30.0	0.7	26.0	0.4	28.0	0.5
	Zn%	7.4	56.0	8.0	55.8	8.0	65.0	8.0	52.5	7.8	60.5	8.0	49.4	7.5	49.3	9.0	52.5	9.5	48.8	8.5	60.0
	Fe%	6.4	3.0	6.5	11.3	7.0	11.5	7.0	11.8	7.0	8.3	7.5	15.5	7.0	19.7	6.4	17.0	6.8	13.0	7.2	9.6
Distribution %	Au	87.8	12.2	81.1	2.4	81.0	4.5	92.9	7.1	89.1	4.4	87.2	12.8	86.0	14.0	87.2	12.8	88.6	11.4	92.3	7.7
	Ag	77.2	22.8	87.6	70.0	86.0	10.8	92.2	7.8	85.2	13.8	81.7	18.3	79.7	20.3	84.8	15.1	85.5	14.5	85.9	14.1
	Pb	97.1	0.7	97.2	0.4	98.6	0.4	98.1	0.7	99.5	0.5	97.1	0.9	97.3	0.9	96.4	1.5	96.9	1.2	97.0	0.8
	Zn	9.3	85.5	10.5	55.8	14.9	65.0	28.7	70.5	19.8	78.7	9.7	88.0	9.0	88.7	16.6	78.4	17.2	80.2	15.9	81.1
	Fe	11.1	29.8	12.3	9.6	18.9	11.5	31.4	20.9	20.2	8.1	14.3	38.1	11.2	38.1	17.5	28.2	20.8	31.5	21.1	10.6
CR		12.8	10.5	11.9	10.1	7.9	11.6	4.3	11.6	6.0	11.6	13.3	9.1	12.9	8.6	8.9	12.0	7.7	8.5	8.5	11.8

Table 13-4 Number 2 Test Recommended by CFM

Product	WT %	Assays					Distribution %					CR
		Au g/t	Ag g/t	Pb %	Zn %	Fe %	Au	Ag	Pb	Zn	Fe	
Feed	100.0	3.3	75.0	3.9	6.4	4.4	100.0	100.0	100.0	100.0	100.0	
Pb Conc	8.4	31.8	782.0	45.0	8.0	6.5	81.1	87.6	97.2	10.5	6.5	11.9
Zn Conc	15.7	1.4	51.0	0.2	55.8	9.6	6.0	8.3	0.8	88.3	15.0	10.1
Tails	75.9	0.6	4.0	0.1	0.1	4.3	12.9	4.1	2.0	1.2	72.7	

The second set of metallurgical tests were performed during 2009 and 2010 by Westcoast Mineral Testing Inc. from North Vancouver, B.C., Canada. Westcoast commentaries about the CFM test are as follows:

- There is very good recovery and distribution of metals into two flotation concentrates.
- Of particular significance and economic importance are the elevated recoveries of gold and silver into the lead-copper (actually “bulk”) concentrate.
- The composite contains galena and chalcopyrite in a ratio of 5.8:1. The recovery of copper,

although not reported, was likely to be quite high based upon subsequent testing by Westcoast Mineral Testing Inc. This partially explains the low 45 % Pb grade of the lead concentrate, since a clean lead concentrate typically grades > 65 % Pb.

- The deposit contains significant visible gold, so there will be some temptation to consider a gravity concentration stage. This needs to be investigated, but the potential for theft of a highly valuable gravity concentrate also needs to be considered.
- The zinc concentrate grade at 55.8 % Zn with a very modest 2.6 % Fe indicates that the zinc is not significantly marmatitic, and either the modest pyrite (Py) content in the feed (1.3 % Py) did not float with the zinc or the Py was easily depressed with lime. Both of these flotation characteristics will improve concentrate grade and metal recovery.
- The testing reported excellent concentrate values, in part because of the good payable grades of gold and silver in the lead concentrate.

From 1977 when Fomento Minero ran its metallurgical test to 2009, a number of changes in practices of mineral processing were adopted in the industry and these were undertaken by Westcoast for its investigation. The 2009 testing program carried out by Westcoast included ten bench scale flotation tests to investigate three process variables: collectors, frothers and pH.

In October 2009, Altaley prepared five metallurgical composites, each of about 20 kg, all from diamond drill core assay rejects. From 40 to 69 individual samples were used to prepare each of four “zone” composites. An “overall composite” was prepared and was weight averaged to reflect the resource tonnage by zones, as shown in Table 13-5 and Table 13-6.

Table 13-5 Distribution of "Overall Composite"

Zone	% Mass
Cinco de Mayo	17
El Creston	42
El Perdido	14
El Catorce	27

Table 13-6 Composite Assays

Zone	Au g/t	Ag g/t	Cu %	Pb %	Zn %
Cinco de Mayo	1.70	58.00	0.45	0.92	2.29
El Creston	2.89	37.00	0.36	1.41	2.11
El Perdido	1.42	35.00	0.25	1.07	1.50
El Catorce	1.53	27.00	0.07	0.81	1.97
Overall Composite	**2.11**	**38.00**	**0.28**	**1.12**	**2.02**

Westcoast found that some of the composites exhibited modest oxidation of the base metals, averaging

<5%. With that modest degree of oxidation, it is unlikely that economic justification exists to incur additional capital and operating costs to recover any oxidized base metals. Consequently, Westcoast did not develop processing performance characteristics for the oxidized material and Reyna agree with this consideration.

The composites were subjected to 15 bench scale flotation tests by Westcoast Mineral Testing of North Vancouver, BC (Hawthorn 2010). This test series evaluated flotation response to the following conditions including primary grind in the range P80 = 90 – 230 microns, several sphalerite depressants in the bulk Cu/Pb rougher stage, and Cu/Pb separation from the final bulk concentrate.

A summary of the copper – lead (bulk) rougher flotation stage results, showing only the "depressants" is shown in Table 13-7. Reagent additions are reported in g/t of feed. The best overall rougher stage recoveries and best selectivity, at nominal primary grinds of 60 % passing 200 mesh (P80 of 100 microns), are tabulated in Table 13-8.

Table 13-7 2009 Flotation Testwork Results

Test	Comp	Grind P_{80} (µm)	$ZnSo_4$	NaCN	NaMBS	Rec to Cu/Pb Rougher Conc		
						Cu %	Pb %	Zn %
09-11	Overall	230				61.9	74.9	52.5
09-12	Overall	105				64.0	65.8	41.3
10-12	Overall	230	1000	200		58.9	67.0	25.9
10-16	Overall	103	1000	200		77.8	84.5	23.6
10-17	Overall	91	1000	200		78.5	83.8	17.9
09-14	Cinco	230				74.6	83.4	48.7
09-15	Cinco	230	500	100		81.3	88.4	27.6
10-02	Cinco	230	1000			76.5	87.1	59.4
10-04	Cinco	117	1000	200		79.8	87.6	26.3
10-05	Cinco	117			2000	75.7	83.0	72.8
10-06	Cinco	98	500	100		88.6	98.8	16.4
10-03	Creston	92	1000			60.0	82.4	25.4
10-07	Creston	99	500	100		81.6	87.7	30.6
10-09	Creston	100	500	100		7.9	85.3	14.7
10-08	Perdido	92	500	100		84.8	93.6	56.0

Table 13-8 Best Westcoast Overall Rougher Flotation

Zone	Test	% Recovered				
		Au	Ag	Cu	Pb	Zn
Cinco de Mayo	10-06	91.5	91.4	88.6	98.8	97.2
El Creston	10-07	83.4	78.7	81.6	87.7	53.2
El Perdido	10-08	82.5	74.2	84.8	93.6	64.9
El Catorce	10-09	87.2	83.5	73.9	98.3	87.7
Arithmetic Average		86.1	82.0	82.2	94.6	75.8
Overall Composite	10-16	85.6	90.1	87.9	86.7	88.1

Although only preliminary in scope, the testing determined that a significant portion of the sphalerite is naturally floatable to the extent of 50 – 70 %.

The addition of 2 kg/t of sodium metabisulphite (a source of sulphur dioxide) was not effective as a depressant, and neither was the addition of zinc sulphate without cyanide.

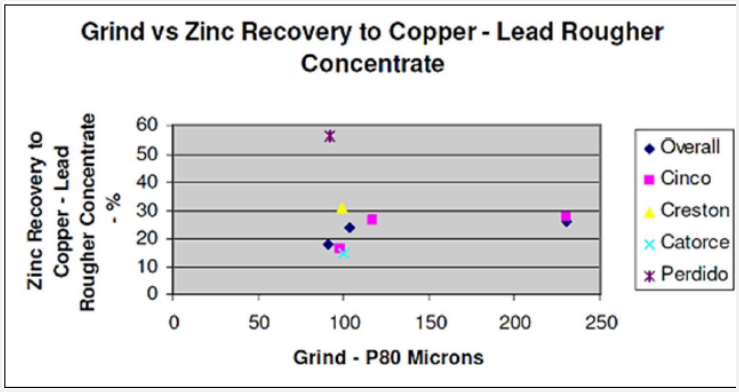
At this stage of the investigation, with the exception of El Perdido, 500 g/t of ZnSO4 and 100 g/t of NaCN is considered to be reasonably effective as a depressant, in that it reduces the zinc recovery into the bulk rougher concentrate to < 20 % at a grind of P80 of 90 – 100 microns.

Figure 13-1 shows grind size versus Zn recovery to Cu/Pb rougher concentrate for only those tests in which both ZnSO4 and NaCn were used. Note that primary grinds finer than P80 of 90 microns were

not investigated, but it should be, since Figure 13-1 clearly shows decreasing zinc recovery into the copper rougher concentrate at finer grinds for both the "overall" and the Cinco de Mayo composites.

Although there are more data points for "Overall" and Cinco de Mayo, the data indicates that the selectivity is not as favorable for Creston and Perdido, consistent with the observations that were reported in Lehne (2009b).

Figure 13-1 Grind Size vs Zn Recovery to Cu/Pb Rougher Concentrate



Several tests included attempts to separate the copper and lead into two concentrates from the final bulk concentrate. The results were not consistent, but they suggest that NaCN is at least partially successful in depressing copper. Lehne (2009a) indicated that liberation is not an issue.

The typical best metallurgical balance from the "overall" composite, from test W-10-16, is shown in Table 13-9and Table 13-10.

The most effective reagent usage to date is shown in Table 13-11. ICP analyses for trace elements have identified the significant metals in the three flotation concentrates shown in Table 13-12 that will be considered to estimate the concentrates payment conditions.

Table 13-9 Best Metallurgical Balance for Overall Composite (Grades)

Product	Mass %	Au g/t	Ag g/t	Cu %	Pb %	Zn %	Fe %	S %
Pb Conc	1.7	95.9	1007.0	7.9	53.9	8.1	12.4	24.1
Cu Conc	0.7	49.9	1154.0	10.0	4.6	22.0	15.1	26.1
Bulk 1 CC	2.4	82.4	1050.0	8.5	39.4	12.2	13.2	24.7
Bulk 1 CT	2.9	1.2	71.0	0.5	1.2	6.7	8.1	5.5
Bulk RC	5.4	37.6	511.0	1.1	18.4	9.2	10.4	14.1
Zn 2 CC	2.4	5.6	106.4	0.9	0.8	55.3	8.6	33.2
Zn 1/2 CT	4.7	1.9	37.9	0.3	0.6	0.9	18.8	14.9
Zn RC	7.1	3.2	61.3	0.3	0.8	19.5	15.3	21.2
O/A Rougher Conc	12.4							
Rougher Tail	87.6	0.4	4.0	0.0	0.2	0.3	3.8	1.0
Feed - Calc	100.0	2.6	35.2	0.3	1.2	2.1	5.0	3.1

Table 13-10 Best Metallurgical Balance for Overall Composite (Distribution)

Product	Au g/t	Ag g/t	Cu %	Pb %	Zn %	Fe %	S %
Pb Conc	62.2	48.5	46.0	77.0	6.4	4.2	13.0
Cu Conc	13.5	23.2	24.4	2.7	7.3	2.1	5.9
Bulk 1 CC	75.7	71.4	70.4	79.7	13.7	6.4	18.9
Bulk 1 CT	1.3	6.0	5.1	3.0	9.3	4.8	5.2
Bulk RC	77.0	77.7	75.5	82.7	23.0	11.2	24.1
Zn 2 CC	5.2	7.3	7.6	1.6	63.0	4.2	25.7
Zn 1/2 CT	3.4	5.0	4.8	2.5	2.0	17.7	22.2
Zn RC	8.6	12.4	12.4	4.1	65.0	21.9	47.9
O/A Rougher Conc	85.6	90.1	87.9	86.7	88.1	33.0	72.0
Rougher Tail	14.4	9.9	12.1	13.3	11.9	67.0	28.0
Feed - Calc	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 13-11 Optimal Reagent Additions from Testwork

Event	Reagent (g/t feed)						
	DF250	3418A	$CuSO5H_20$	$ZnSo_4$	$Ca(OH)_2$	NaCN	pH
Grind				1000		200	
Bulk Rougher	yes	14					
Zn Conc		4	500		2000		10.5
Zn Rougher							
Bulk Separation	yes	25				500-1000	
Zn Cleaning		10			yes		11.5

Table 13-12 Flotation Concentrate Detailed Assays

Element	Unit	Pb Conc	Cu Conc	Zn Conc
Au	g/t	66	125	4
Ag	g/t	1080	1450	100
Cu	%	10	10	0.7
Pb	%	50	10	0.6
Zn	%	5	18	62
Fe	%	13	18	5
S	%	23	23	31
As	ppm	230	270	70
Sb	ppm	1390	923	100
Hg	ppm	13	84	100
Bi	ppm	780	180	3
Cd	ppm	110	350	1350

The following parameters determined by Westcoast for the overall composite are as follows:

- The optimum primary grind will be P80 of 90 microns or finer.
- The role of regrinding, if there is any requirement at all, is unknown.
- Initial testing to separate the bulk copper / lead concentrate, was partially successful. Although the zinc grade was higher than that of the copper in the “copper concentrate” in test W-10-16 (Hawthorn 2010), it is anticipated that this product will be marketed as a copper concentrate to maximize the revenue from gold and silver.
- Future testing will need to focus on the optimum conditions for copper-lead separation.
- Future testing will need to evaluate the potential to divert the 7% of the zinc that reports to the copper concentrate, into the zinc flotation circuit.
- The overall composite responded reasonably well to the addition of 500 g/t of ZnSO4 and 100 g/t of NaCN, suggesting that blending of fresh and supergene material may be satisfactory in the

overall project.
- If El Perdido and to a lesser extent El Creston, represent a large portion of the plant feed at any time, the circuit may benefit from sequential feeding. This observation has not been evaluated, but it does represent a cautionary note for future testing.

The Westcoast recommendation for future testing was as follows:

- Alternative depressants and alternative addition rates in the bulk rougher circuit
- Alternative depressants in the copper-lead separation stage
- The role of finer primary grinding on zinc selectivity in the bulk rougher flotation stage. That may lead to the use of zinc depressants in the bulk cleaner circuit in an attempt to divert more of the zinc to the zinc concentrate.
- The role of regrinding
- Work Index testing
- Processing variability between the "fresh" and the "supergene" zones and the effect of randomly comingling of feed types.

The following information is taken from the report of that study by Fomento (Rios, Castrejon, and Nieto, 1977a) and its English translation (Rios, Castrejon, and Nieto, 1977b). During Emijamex's exploration at the Sacramento de la Plata mine between 1975 and 1977, they sent a single 150 kg sample for flotation test work. The sample contained sphalerite and galena with minor chalcopyrite in a gangue of quartz, chlorite, hematite, pyrite, and limonite. Geochemical analysis of the sample is listed in Table 13-13. According to the translation of the metallurgical report (Rios, Castrejon, and Nieto, 1977b), "The screening of pulverized material through a -65 mesh indicates a degree of recovery of 82.7, 82.8 and 80.5% of free zinc, lead and copper respectively". The report concluded that milling should be between -65 and -100 mesh and that "the studied ore adapts easily to the process of concentration by flotation" (Rios, Castrejon, and Nieto, 1977b).

Table 13-13 El Creston – Perdido Mineable Resources grades

Au g/t	Ag g/t	Cu%	Pb%	Zn%
3.00	53.00	0.24	3.50	6.40

In 2009 Hawthorn of Westcoast Mineral Testing Inc reviewed the Fomento report and stated that the results of this met test were very encouraging. It was observed that subsequent to the 1970's a number of processing changes have been either adopted or are preferred. These include:

- The zinc sulphate and sodium cyanide combination, although technically effective, is no longer preferred for sphalerite (Sph) depression in lead rougher flotation, having been "replaced" by sulphur dioxide in one of several chemical forms. SO2 is generally as effective as zinc sulphate – cyanide, and its use will eliminate the transport of the significantly more hazardous sodium cyanide. At this stage of the testing, the requirement for a Sph depressant has not been determined in any case, so the first test in any future testing program should be performed without any Sph depressant to investigate the natural partitioning of galena (Ga) and Sph.
- The use of cresylic acid (cresilico) as a frother has been replaced by glycol and MIBC, so it would not be used in any future investigation.

- In the case of the various collectors that were investigated, there are now more recent introductions that will provide improved selectivity.

Compañia Minera Sacramento de la Plata constructed a 50 tpd flotation plant to process mined material from El Creston and El Rey and operated in the 1970s for around 2 years.

Concentrates obtained during this period were delivered to the Peñoles smelter at Torreon, Coahuila. Data from the Servicio Geologico Mexicano published in the "Monografia Geologica Minera del Estado de Durango" indicate the concentrates produced in this plant and are shown in Table 13-14.

Table 13-14 Historic Concentrates Production by Compañia Minera Sacramento de la Plata

Year	Au g/ton	Ag g/ton	Pb %	Cu %
1979	90	615	52	0.93
1979	35	754	38	3.05
1980	18	903	41	5.4

For the metallurgic testwork review, it is important to take into consideration that Altaley is looking to initiate the exploitation of Tahuehueto in the El Creston – Perdido areas, based on the accessibility and quality of the resource. Table 13-15 shows a summary of the mineable resource defined for the El Creston and El Perdido areas. The metallurgic test performed by CFM comes from a composite taken from channel samples from different exposed old levels mainly in El Creston and El Rey. The Westcoast composite sample comes from core drilling of all the existing areas. This data is shown in Table 13-16.

Table 13-15 El Creston – Perdido Mineable Resource Grades

Au g/t	Ag g/t	Cu%	Pb%	Zn%
4.52	45.96	0.35	1.48	2.90

Table 13-16 Comparative Assays from Composites and Mineable Resources

Area	Au g/t	Ag g/t	Cu %	Pb %	Zn %
El Crestón Cutoff 6 Mineable Resources	5.11	44.88	0.31	1.40	2.96
El Perdido Cutoff 6 Mineable Resources	1.98	50.56	0.51	1.82	2.63
El Crestón – Perdido Cutoff 6 Mineable Resources	4.52	45.96	0.35	1.48	2.90
Composite El Crestón By Drilling Core	2.89	37.00	0.36	1.41	2.11
Composite El Perdido By Drilling Core	1.42	35.00	0.25	1.07	1.50
Crestón – El Rey CFM Sample	3.00	35.00	0.24	3.50	6.40

The assay of the sample used for CFM indicates much higher head grades for Pb and Zn in comparison to the 2009 resource estimated by Altaley. However, gold and silver grades were much closer to estimated grades.

The metallurgic investigation performed by Westcoast was based on a sample mainly composited from Creston and Cinco de Mayo areas and these zones show a different mineralogy and operating parameters from one to another.

Table 13-17 shows the parameters of the independent rougher metallurgical test for El Creston and El Perdido areas. The best Westcoast metallurgical balance for overall composite (grades) is indicated in Tables 13-9 and 13-10.

Table 13-17 Westcoast Metallurgic Result from El Crestón and El Perdido Areas

Test	Area	Grind P_{80} (µm)	ZnSO4	NaCN	NaMBS	Rec to Cu/Pb Rougher Conc		
						Cu %	Pb %	Zn %
10-03	Creston	92	1000			60.0	82.4	25.4
10-07	Creston	99	500	100		81.6	87.7	30.6
10-08	Perdido	92	500	100		84.8	93.6	56.0

In order to confirm the previous metallurgical parameters, Altaley prepared a new bulk sample from the El Creston area only. The sample was integrated with samples from the different existing levels and in selected zones of the vein that meet the cut off 6 g/t Au of the mineable resource grades in order to have a more accurate representation of the grades that will be mined in a selective way and processed in future mill.

The sample was sequentially reduced to 25 kg for the metallurgic test; the assay of this sample resulted in the highest average of the minable resources and is shown in Table 13-18.

Table 13-18 Assay of the Composite Creston Sample to Confirm Previous Results

Au g/t	Ag g/t	Cu%	Pb%	Zn%
7.76	65.0	0.14	4.90	6.58

The mineralogy, mineral characteristics, grindability, along with the other pertinent parameters discussed in the previous tests were considered for inclusion in this test program to prove up and confirm that process parameters will be similar for the ores developed from the El Creston areas with similar recoveries, and marketable concentrates.

Table 13-19 provides the metallurgic results for the Altaley confirmation Test 1. This test was carried out using the parameters and reagents defined by Comision de Fomento Minero, confirming that the material is suitable for a flotation process and that it is possible to produce a commercial Bulk Pb–Cu and Zn concentrates. The reagents used in the Test 1 are shown in Table 13-20.

Table 13-19 Metallurgic Test 1 (CFM Parameters)

PRODUCT	MASS	ASSAYS					RECOVERY				
		Au g/t	Ag g/t	Cu %	Pb %	Zn %	Au	Ag	Cu	Pb	Zn
Feed	4000.00	8.66	89.05	0.178	3.89	6.69	100	100	100	100	100
Conc Pb	219.75	96.00	682.50	1.264	56.80	9.40	68.08	47.70	35.47	76.93	7.13
Conc Zn	407.00	3.00	71.70	0.283	0.79	48.80	3.94	9.28	14.71	1.99	68.57
Medios Pb	229.20	17.40	213.80	0.701	7.60	11.57	12.87	15.59	20.52	10.74	9.15
Medios Zn	248.57	3.20	56.80	0.306	2.50	3.09	2.57	4.49	9.71	3.83	2.65
Tails	2895.48	1.34	24.91	0.053	0.37	1.25	12.55	22.94	19.60	6.79	12.49
Feed Calc		7.75	78.60	0.196	4.06	7.242	100	100	100	100	100
Rec Calc							87.45	77.06	80.40	93.49	87.51

Table 13-20 Reagents of Test 1

Reagent	Time	PH	ZnSO4	NaCN	AF-242	CAL	CuSO4	AF-211	X-343	Mibc 70
Molienda #1	30 min	7.5	4 g	0.5 g						
Molienda #2	30 min	7.5	4 g	0.5 g						
Flot PB-CU	10 min	7.5			20g/t					30 g/t
LIMPIA PB-CU#1	2 min	7.5								
FLOT ZN	10 min	11.5						40 g/ton	40 g/t	20 g/t
LIMPIA ZN #1	2 min	11.5								
ACOND PB-CU	5 min	7.5			40 g/t					
ACOND ZN	5 min	11.5				3 g/kg	2 g/kg			

Based on the results of the Test 1, a second test was performed, using the same sample in order to confirm the results of the Test 1 but using innovative reagents like Xantato, promoters AF-404 and AF-242, and canceling the use of NaCN for environmental considerations.

The metallurgical balance of the confirmation Test 2 is indicated in Table 13-21 and Table 13-22 lists the parameter and reagents used in the Test 2. No leaching test were run due to the minimum amount of lead concentrates remaining and available. NaCN will be cancelled with AF 404 and AF 242 promotors.

Table 13-21 Metallurgic Test 2

Product	Weight	Assays					Content Tons			Content KG		Recuperations				
		Cu %	Pb %	Zn %	Au g/t	Ag g/t	Cu	Pb	Zn	Au	Ag	Cu	Pb	Zn	Au	Ag
Head	4000	0.178	3.890	6.690	8.660	89.050	7.120	155.600	267.600	34.640	356.200	100	100	100	100	100
Conc Pb	219.75	1.264	56.800	9.400	96.000	682.500	2.778	124.820	20.660	21.100	149.980	35.47	76.93	7.13	68.08	47.7
Conc Zn	407	0.283	0.790	48.800	3.000	71.700	1.152	3.232	198.620	1.220	29.180	14.71	1.99	68.57	3.94	9.28
Medios Pb	229.2	0.701	7.600	11.570	17.400	213.800	1.607	17.419	26.520	3.990	49.000	20.52	10.74	9.15	12.87	15.5
Medios Zn	248.57	0.306	2.500	3.090	3.200	56.800	0.761	6.214	7.680	0.800	14.120	9.7	0.83	2.65	2.57	4.49
Colas	2895.5	0.053	0.370	1.250	1.340	24.910	1.535	10.569	36.190	3.890	72.130	19.6	6.79	12.49	12.55	22.9
Calc Head		0.196	4.060	7.242	7.750	78.600	7.831	162.250	289.670	30.990	314.420	100	100.28	100	100	100
Recoveries Using Calculated Head												**80.4**	**93.49**	**87.51**	**87.45**	**77.06**

Table 13-22 Parameters of Metallurgic Test 2

Parameter		Time	pH	$ZnSO_4$	NaCN	Af-242	Cal	$CuSO_4$	AF-211	X-343	Mibc 70
Molienda #1	2000	30 min	7.5	4 g	0.5 g						
Molienda #2	2000	30 min	7.5	4 g	0.5 g						
Flot Pb-Cu		10 min	7.5			20 g/t					30 g/t
Limpia Pb-Cu#1		2 min	7.5								
Flot Zn		10 min	11.5						40 g/t	40 g/t	20 g/t
Limpia Zn #1		2 min	11.5								
Acond Pb-Cu		5 min	7.5			40 g/t					
Acond Zn		5 min	11.5				3 g/t	2 g/t			

Based on metallurgical tests performed to date, the following conclusions and recommendations were made for the mill design:

- The previous metallurgical campaigns provide sufficient data to reach a high level of confidence that the floatation process chosen will work, flotation targets are attainable, and an economical concentrate can be produced.
- For the economic analysis and plant design it is recommended to use the result of the last confirmation metallurgical test run by Altaley, specifically for the use of new reagents and have

extra capacity for processing high grade ores.

- Primary grind the material for processing to under 80% passing 200 mesh (P80 of 100 microns).
- Use reagents recommended by Altaley Test 2, indicated in Table 13.22.
- Consider in the mill design the installation of a copper flotation section.
- Run a two more industrial tests of 3,500 to 5,000 tonne from the lower portion of the El Creston zone and the other from Cinco de Mayo Zone to test and determine recoveries for the different types of ore mineralization within those zones.
- Sell the produced concentrates of the industrial test, in order to prove the sales term for the Tahuehueto concentrates.
- If the industrial test result proves an economic benefit and cash generator for Altaley, continue processing the material produced from the mine development until the Tahuehueto mill is ready to work.

Based on metallurgical tests performed to date, along with independent mass balance calculations, and production metrics from similar polymetallic milling operations, the following is the recommended distribution percentages for the mill design and economic analysis. The metallurgical recoveries are presented in Table 13-23.

Table 13-23 Tahuehueto Average Metallurgical Recoveries

Product	kTonnes	Distribution % (Recoveries)				
		Au	Ag	Cu	Pb	Zn
Head	3,550	100%	100%	100%	100%	100%
Pb Concentrate	58	77.1%	62.8%	31.6%	85.5%	1.6%
Cu Concentrate	18	6.8%	10.3%	51.4%	0.6%	17.1%
Zn Concentrate	108	11.0%	11.7%	11.5%	6.1%	80.0%
Tails	3,366	5.4%	15.2%	5.4%	7.8%	1.3%

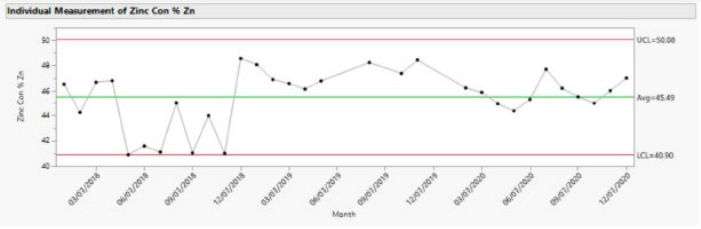
During the period Jan 2018 through December 2020, ore from Tahuehueto was toll processed to make independent zinc and lead concentrates. A total of 83.9 kt of zinc concentrate were produced and sold with an average Zn grade of 45.5 percent and average silver grade of 444.2 g/t. Lead concentrates produced totaled 17.8 kt with an average lead grade of 26.2 percent with silver and gold grades averaging g/t and 32.3 g/t respectively. Monthly concentrate production KPIs are presented in Table 13-24.

Table 13-24: Pertinent Toll Treatment KPIs

	Zinc Con				Lead Con			
Month	tones	% Zn	(g/t) Ag	(g/t) Au	tones	% Pb	(g/t) Ag	(g/t) Au
Jan-18	2,667.58	46.51	598.42	11.41	596.91	32.37	1,492.97	116.38
Feb-18	3,070.97	44.28	398.00	2.24	366.96	24.34	582.24	9.05
Mar-18	3,137.09	46.67	494.20	8.86	662.89	35.99	1,665.76	117.60
Apr-18	3,890.68	46.80	424.79	7.48	748.02	39.61	1,743.81	115.21
May-18	4,512.01	40.91	362.96	1.23	562.47	28.10	678.78	5.92
Jun-18	3,340.74	41.61	372.53	0.95	893.65	25.24	592.86	4.73
Jul-18	3,521.15	41.12	310.97	1.06	653.20	23.53	563.91	4.34
Aug-18	4,853.74	45.03	456.26	9.14	891.41	31.56	1,468.56	74.93
Sep-18	1,200.68	41.05	308.40	0.95	406.75	23.31	710.88	3.94
Oct-18	4,384.73	44.02	398.39	7.28	912.76	32.88	1,567.29	67.54
Nov-18	3,199.73	41.01	349.52	1.12	463.58	20.85	652.24	3.80
Dec-18	2,797.41	48.56	511.15	6.91	1,225.48	30.61	1,534.15	74.69
Jan-19	3,423.03	48.08	517.16	6.81	803.42	18.23	1,492.16	5.01
Feb-19	2,754.26	46.89	564.93	10.45	785.11	32.09	635.12	85.56
Mar-19	3,194.58	46.57	540.19	1.19	750.17	28.72	651.57	4.16
Apr-19	3,330.89	46.13	529.98	1.53	885.31	24.67	606.55	4.93
May-19	3,326.65	46.77	416.82	1.07	608.26	24.44	718.22	3.97
Aug-19	230.24	48.24	109.00	10.90	168.23	39.99	862.00	115.25
Oct-19	1,135.531	47.38	474.18	8.66	30.373	34.33	1,014.50	77.86
Nov-19	37.538	48.44	525.50	29.60	205.779	26.88	703.00	33.96
Feb-20	1,647.30	46.22	503.39		561.93	19.68	635.51	3.74
Mar-20	3,839.50	45.87	435.84		564.03	22.04	771.26	4.16
Apr-20	808.83	44.97	374.20		170.92	21.59	737.50	4.70
May-20	804.02	44.40	411.00		262.62	18.24	946.00	4.50
Jun-20	3,582.42	45.30	425.78		761.31	21.30	827.51	6.94
Jul-20	2,057.78	47.70	445.00		506.16	21.80	660.00	4.50
Aug-20	1,353.94	46.20	450.00		462.92	22.10	530.00	5.20
Sep-20	3,068.42	45.50	460.00		663.21	22.60	560.00	6.60
Oct-20	3,148.79	45.00	500.00		692.60	21.50	500.00	6.00
Nov-20	4,001.84	46.00	560.00		91.74	22.00	590.00	3.80
Dec-20	1,570.17	47.00	540.00		478.87	22.05	610.00	23.00
Total	83,892.22				17,837.04			
Average		45.49	444.15	6.44		26.21	880.79	32.32

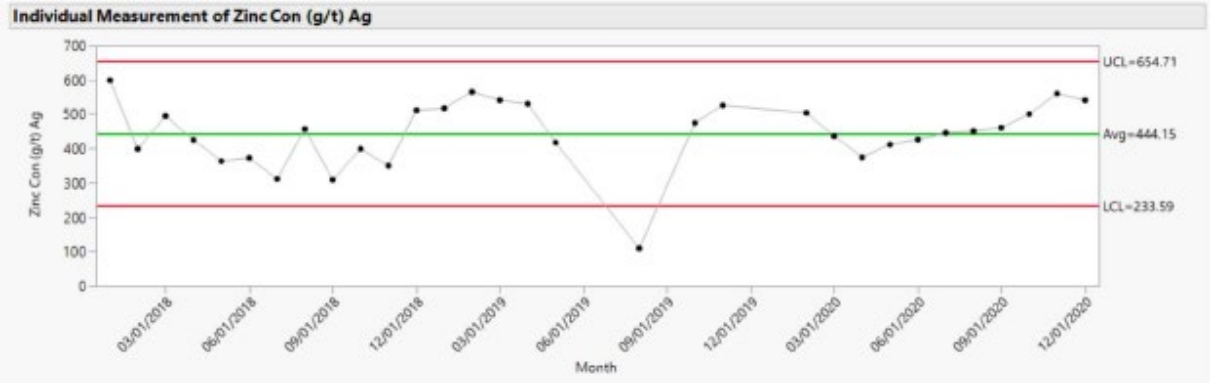
Figures 13-2 through 13-5 present control charts of the various monthly concentrate production KPIs. As shown initial Zinc concentrate Zn grades varied considerably until stabilizing in December 2018, this is likely due to a change in ore source.

Figure 13-2: Toll Treatment Zinc Con Zn Grade Control Chart



Zinc concentrate silver grades were fairly stable throughout the campaigns except for the month of July 2019. The root cause of this drop is unknown at the time of writing, but highly likely owing to a change in ore type.

Figure 13-3: Toll Treatment Zinc Con. Ag Grade Control Chart



Lead concentrate lead grades were a bit erratic until May 2019, but stabilized beginning October 2019. Lead concentrate silver grades we also erratic until January 2019. Both of these periods with compared the Zinc concentrate grades indicate a variability in ore type.

Figure 13-4: Toll Treatment Lead Con. Pb Grade Control Chart

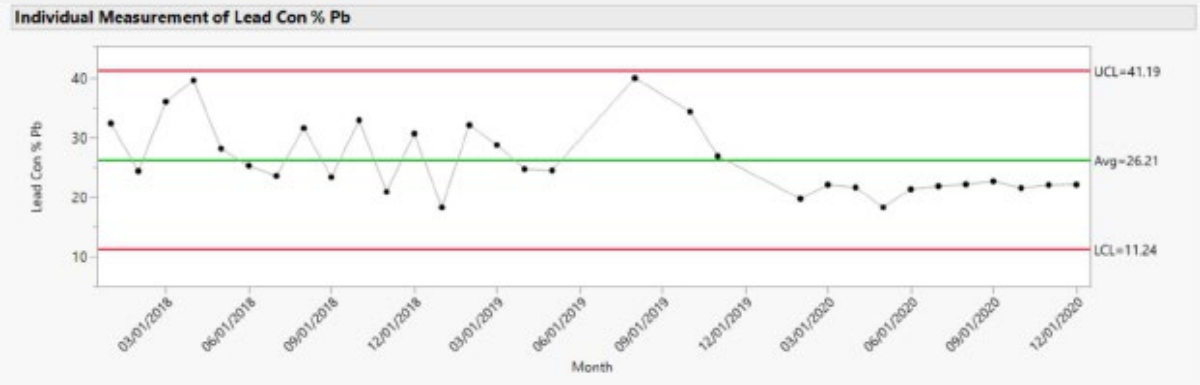
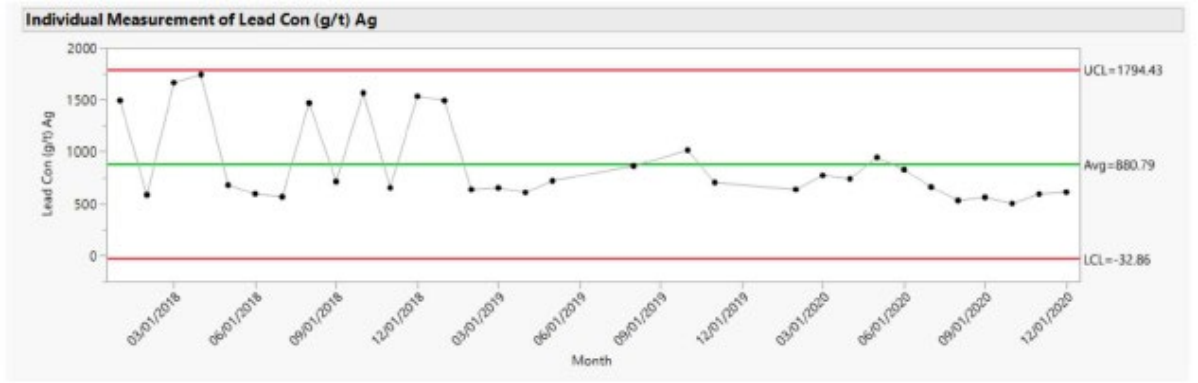


Figure 13-5: Toll Treatment Lead Concentrate Ag Grade Control Chart



Metallurgical performance during the toll treatment campaigns, although not performed in a "optimized circuit configuration", provide more than enough evidence that the Tahuehueto ore types are amenable to flotation processing.

(8) Mineral Resource and Mineral Reserve Estimates

The global mineral resource estimate was prepared based on a resource model constructed using Vulcan Geomodeller® scientific software. The Tahuehueto mineral resource was estimated using Inverse Distance Weighting (IDW) interpolation techniques.

Tahuehueto hosts a polymetallic assemblage of mineralization. Mineralization contains anomalous quantities of gold (Au), silver (Ag), copper (Cu), lead (Pb) and zinc (Zn). These metals are present in large continuous vein systems which have been identified throughout the Property. Three-dimensional vein models were used as the sources for the volumetric determinations of the resource model. Metals contained within each model block were estimated using Inverse Distance Cubed (ID3) interpolation methods.

Mineral Resources for the Project were determined based on a statistical analysis of data from 215 diamond drillholes totaling 44,857m, 37 reverse circulation drillholes totaling 3,668m and 1,812 underground channel samples totaling 3,644m. A three-dimensional geology model combining veins and stratigraphic units was used to constrain the Mineral Resource Estimate. Two resource models were built to encompass the seven areas of El Creston, El Perdido, El Catorce, Cinco de Mayo, El Rey, Santiago and Texcalama. The resource models use block sizes ranging from 1.5 x 1.5 x 1.5 meters to 3 x 3 x 3 meters depending on geologic continuity and geometry. Resource classification into measured, indicated, and inferred categories was based on the number of drillholes, distances to nearest drillholes and visually.

A model was created for estimating the gold, silver, copper, lead, and zinc resources at Tahuehueto from data generated by Altaley, including detailed geologic mapping, RC and core drilling data, underground sampling, and project topography derived from one-meter resolution IKONOS imagery. These data were incorporated into a digital database using the UTM Zone 13 NAD27 Mexico coordinate system.

Various structures provide the primary controls of the mineralization at Tahuehueto. The Cinco de Mayo (including the El Catorce area), El Perdido, and Santiago mineralization lie along a structural zone that strikes 045˚ to 055˚ and dips 60˚ to 80˚ to the southeast. The El Rey deposit lies to the northwest along a subparallel structure striking 060˚ and dipping very steeply to the southeast, and mineralization at El Creston is primarily controlled by a structural zone that strikes 030˚ to 035˚ and dips to the southeast. Mineralization in most of these structures consists more of a zone of irregular veins and veinlets than single, well-defined veins. The strongest and most continuous zones of mineralization generally correlate positively with quartz veining and, in unoxidized zones, increases in sulfide minerals.

Altaley provided RDA with a three-dimensional wireframe interpretation of the principal mineralized structures at Tahuehueto. These were used as hard boundaries for the extrapolation of mineralized grades.

Oxidized and partially oxidized zones were delineated from unoxidized zones by means of a three-dimensional surface created by Altaley staff. RDA used this surface in the modeling of the resources, as discussed below, after checking it against drill-hole oxidation codes in the project database.

There is a relatively minor amount of underground workings within the Cinco de Mayo, El Creston, and El Rey areas. These workings consist primarily of exploration-type drifts along mineralized structural zones and minor crosscuts. There is no modern stoping in any of the El Creston or Cinco de Mayo workings, but two raises have been developed between levels 9 and 10 in El Creston. There is one raise to surface from the Cinco de Mayo South adit, and there is a small stope in El Rey between levels 3 and 4.

The underground workings were either surveyed, when possible, but more commonly, digitized plan maps of the workings created by previous operators were used; the plan maps of the workings are located in UTM space based on the surveyed entrances of the portals.

Vertical cross sections oriented orthogonal to the average strike of each mineralized area at Tahuehueto were used to develop 3-D geologic vein models. The sections were spaced at 50 m intervals at Cinco de Mayo and 25 m intervals at El Creston, El Perdido, and Santiago; some sections at Cinco de Mayo were skipped due to lack of drill data, leading to occasional 100 m-spaced sections. The drill-hole traces, underground sample data, topographic profile, surface structural mapping data, were all used in the definition of the Tahuehueto geologic model.

The models are meant to capture the gross geological sense of the mineral deposit. In this case the stockwork was modeled and then the veins internal to the stockwork were modeled. The interpretations of the two zones lead the creation of solid geologic models of the mineral body. These solid are used for coding a block model with the different material types and to ensure that geologic controls are used in the grade estimation process.

Treatment of outliers is generally a perplexing problem. There is no generally accepted solution of handing outliers; however, diligence needs to be exerted with the assay database to ensure the ability to estimate the true average grade of the mineral deposit. Therefore, a generally accepted practice of

capping grades at the 90th through 99th percentile has been employed to limit the impact of high-grade outliers for the deposit Table 14-1 lists the grade capping parameters for each of the five metal grades.

Table 14-1 Capping values

Table 14-1 Capping values

Au g/t	Ag g/t	Cu %	Pb %	Zn %
30	120	None	10	10

Compositing reduces the impact of short assay intervals and helps to better estimate the average grade of the deposit. Compositing incorporates a certain amount of dilution into the raw assay data prior to estimation. The mining operation envisioned for the Project, underground, will be at a larger scale than the assays sampled for the deposit. The selective mining unit for the Project is expected to be 1.5 m, therefore, the assays for the database have been composited to 1.5 m. Composites are length weighted down hole composites of the capped metal assay values.

The resource block models for the Tahuehueto Project subdivide the deposit into 3m-by-3m-by-3m cubed blocks. The contact between stockwork and veins was further subdivided into 1.5m by 1.5m by 1.5m blocks. All of the required information about the deposit is stored in each individual block. This includes estimated characteristics of Au, Ag, Cu, Pb and Zn. grades. Statistical characteristics such as kriging variances, number of samples used in an estimate, distances to the nearest drill hole, etc., are also stored in each individual block for descriptive evaluations. Physical information stored in the blocks can include rock types, bulk densities, contained metal and alteration is stored in order to evaluate engineering, production and geotechnical parameters that might be utilized to determine the viability of mining the deposit.

Due to the nature and complexity of the geologic model of Tahuehueto, two separate block models were created to handle the deposit. The model dimensions are listed in Table 14-2 and Table 14-3.

Table 14-2 Cinco de Mayo/Catorce/Texcalama Model Dimensions

Item	X	Y	Z
Orientation/Bearing	38	308	Vertical
Model Origin	336857	2811000	690
Minimum Block Offset	0	0	0
Maximum Block Offset	1350	750	600
Minimum Block Size	1.5	1.5	1.5
Maximum Block Size	3	3	3
Number of Blocks	900	500	400

Table 14-3 El Creston/El Perdido/Santiago/El Rey Model Dimensions

Item	X	Y	Z
Orientation/Bearing	52	322	Vertical
Model Origin	337407	2812277	1990
Maximum Block Offset	1860	660	960
Minimum Block Size	1.5	1.5	1.5
Maximum Block Size	3	3	3
Number of Blocks	1240	440	640

Metal grades for the mineral resource are estimated using Inverse Distance Weighting. Inverse distance methods are a suite of weighted average estimation methods. These result in estimates that are smoothed versions of the original sample data. Inverse distance methods are based on calculating weights for the samples based on the distance from the samples to the centroid of a model block. This is essentially a linear estimate where sample weights are assigned to composite values for all composites used in the estimate. The calculation of the weights is based on the inverse of the distance between the composite and the center of the block being estimated. Sample weights are standardized to a sum of 1 to ensure there is not a globally biased estimate. In the mining industry there are two common exponents used, Inverse Distance squared (ID2) and Inverse Distance cubed (ID3). ID3 is used when large weights are desired for the closest composites. This is applicable when the variable being estimated is erratic and the current data spacing is large relative to the data that would be available for mineral boundary decision making. Such as with poly-metallic grade distributions. ID3 methodologies are widely used in the mining industry and have proven through the decades to be an acceptable and reliable methodology for the estimation of metal distributions in numerous mineral deposits. Metal grades were estimated using Inverses Distance to the third power. The general procedure for creation of the metal model was as follows:

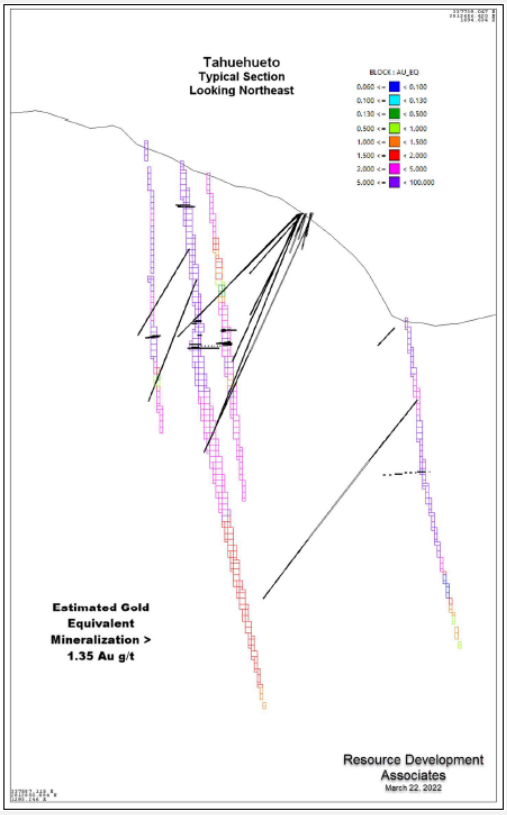
- The major axis of the search ellipse was oriented at the same angles as the geologic structures of each deposit.
- A composite had to be a minimum of 1 m, or half the SMU, in order to be used in the grade estimation run.
- Estimates were calculated in 3 passes to recognize increasing levels of confidence in the estimate of mineralization. This is a critical step to determine mineral classification for the deposits.
- Gold, Silver, Copper, Lead and Zinc are estimated using similar parameters.

The grade estimation parameters are listed in Table 14-4. Figure 14-1 shows a typical section through Creston and El Perdido.

Table 14-4 Tahuehueto Estimation Parameters in Vulcan Format

Deposit	Estimation Pass	Rotation about Z Axis	Rotation about X Axis	Rotation about Y Axis	Major Axis Length	Semi Major Axis Length	Minor Axis Length	Minimum Samples	Maximum Samples
Cinco de Mayo	1	12	51	-51	30	15	20	2	15
	2	12	51	-51	90	45	20	2	15
	3	12	51	-51	300	240	45	2	15
El Catorce	1	12	51	-51	30	15	20	2	15
	2	12	51	-51	90	45	20	2	15
	3	12	51	-51	300	240	45	2	15
El Creston	1	33	72	84	60	30	25	2	15
	2	33	72	84	120	60	35	2	15
	3	33	72	84	240	120	45	2	15
El Perdido	1	44	61	-80	60	30	25	2	15
	2	44	61	-80	120	60	35	2	15
	3	44	61	-80	240	120	45	2	15
Santiago	1	39	61	-61	60	30	25	2	15
	2	39	61	-61	120	60	35	2	15
	3	39	61	-61	240	120	45	2	15
El Rey	1	70	-85	-75	60	30	25	2	15
	2	70	-85	-75	120	60	35	2	15
	3	70	-85	-75	240	120	45	2	15
Texcalama	1	12	51	-51	30	15	20	2	15
	2	12	51	-51	90	45	20	2	15
	3	12	51	-51	300	240	45	2	15

Figure 14-1 Cross Section through Section 3075 Looking 30 Northeast



The mineral resources in this report were estimated in accordance with the definitions contained in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves Definitions and Guidelines that were prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.

Mineral resource classification for the Project is based on the three passes that were used for mineral estimation. As described in Table 14-4:

- Pass 1 = Measured Mineral Resources
- Pass 2 = Indicated Mineral Resources
- Pass 3 = Inferred Mineral Resources

Mineral resources have been limited to mineralized material that occurs within the mineralized blocks and which could be scheduled to be processed based on a defined cut-off grade. All other material was characterized as non-mineralized material.

The "reasonable prospects for eventual economic extraction" requirement generally implies that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are reported at an appropriate cut-off grade that takes into account extraction scenarios and processing recoveries. The deposit metallic mineralization is amenable for extraction by conventional underground mining methods. In order to determine the quantities of material offering "reasonable prospects for eventual economic extraction" for mining, the author determined an internal economic cut-off grade based on gold equivalence. Metal values were calculated to a gold price per gram basis to be combined with gold grades to estimate gold equivalence. Calculations and metal prices used to determine AuEq grades are listed in Table 14-5 and Table 14-6, respectively.

Table 14-5 Gold Equivalence Grade Calculations

Gold Equivalence Grade Calculations
Ag Value = (Ag gpt*Ag Price)/Au Price
Cu Value = ((((Cu%/100) *sg*volume) *1,000,000) *Cu Price)/Au Price/(sg*volume)
Pb Value = ((((Pb%/100) *sg*volume) *1,000,000) *Pb Price)/Au Price/(sg*volume)
Zn Value = ((((Zn%/100) *sg*volume) *1,000,000) *Zn Price)/Au Price/(sg*volume)
AuEq gpt = Au gpt + Ag Value + Cu Value + Pb Value + Zn Value

Table 14-6 Metal Prices Used for Mineral Resource Estimates

Metal	Units	Value
Gold	$/oz	1,650
Silver	$/oz	21.02
Copper	$/lb	3.70
Lead	$/lb	0.91
Zinc	$/lb	1.15

Mineral resources for the Tahuehueto Project are reported at an AuEq grade of 1.35 g/t. Table 14-7 lists the current Mineral Resource Estimate by classification and mineralized inventory for the Project.

Table 14-7 Tahuehueto Project Measured, Indicated, and Inferred Mineral Resource Estimate

Classification	kTonnes	Ag Grade (gpt)	Cont Ag kOz	Au Grade (gpt)	Cont Au kOz	Cu Grade (%)	Cont Cu klbs	Pb Grade (%)	Cont Pb klbs	Zn Grade (%)	Cont Zn klbs
Total Measured	3,875	48.54	6,047	2.42	302	0.27	23,215	1.11	94,967	2.01	171,481
Total Indicated	2,385	44.43	3,407	1.60	123	0.25	13,379	0.55	28,905	1.94	101,883
Total Measured and Indicated	**6,260**	**46.97**	**9,454**	**2.11**	**425**	**0.27**	**36,594**	**0.90**	**123,872**	**1.98**	**273,364**
Total Inferred	918	28.46	840	1.02	30	0.15	3,077	1.16	23,571	1.96	39,755

Mineral resources are inclusive of mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Mineral resource estimates do not account for mineability, selectivity, mining loss and dilution. These mineral resource estimates include inferred mineral resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied.

Sections 14.8.1 through 14.8.7 include tables of Mineral Resource Estimates by classification and mineralized inventory for the different deposits: El Creston, El Perdido, El Catorce, Cinco de Mayo, El Rey, Texcalama and Santiago.

The following Mineral Resources are reported at an AuEq grade of 1.35 g/t. Table 14-8 lists El Creston mineral resources. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

Table 14-8 El Creston Measured, Indicated, and Inferred Resources

Classification	kTonnes	Ag Grade (gpt)	Contained Ag kOz	Au Grade (gpt)	Contained Au kOz	Cu Grade (%)	Contained Cu klbs	Pb Grade (%)	Contained Pb klbs	Zn Grade (%)	Contained Zn klbs
Total Measured	1,682	42.29	2,287	2.65	143	0.20	7,260	1.19	44,052	2.31	85,662
Total Indicated	341	41.17	452	1.84	20	0.20	1,542	0.95	7,130	1.80	13,533
Total Measured and Indicated	**2,023**	**42.11**	**2,739**	**2.51**	**163**	**0.20**	**8,802**	**1.15**	**51,182**	**2.22**	**99,195**
Total Inferred	51	30.94	51	1.96	3	0.12	138	0.69	774	0.87	975

The following Mineral Resources are reported at an AuEq grade of 1.35 g/t. Table 14-9 lists El Perdido mineral resources. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Table 14-9 El Perdido Measured, Indicated, and Inferred Resources

Classification	kTonnes	Ag Grade (gpt)	Contained Au kOz	Au Grade (gpt)	Contained Ag kOz	Cu Grade (%)	Contained Cu klbs	Pb Grade (%)	Contained Pb klbs	Zn Grade (%)	Contained Zn klbs
Total Measured	990	43.98	1,400	2.69	86	0.40	8,698	1.02	22,222	1.46	31,848
Total Indicated	271	32.32	281	2.30	20	0.26	1,541	0.83	4,924	1.23	7,339
Total Measured and Indicated	**1,261**	**41.46**	**1,681**	**2.61**	**106**	**0.37**	**10,239**	**0.98**	**27,146**	**1.41**	**39,187**
Total Inferred	38	23.81	29	1.51	2	0.20	166	1.05	870	1.44	1,193

The following Mineral Resources are reported at an AuEq grade of 1.35 g/t. Table 14-10 lists El Catorce mineral resources. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Table 14-10 El Catorce Measured, Indicated, and Inferred Resources

Classification	kTonnes	Ag Grade (gpt)	Contained Au kOz	Au Grade (gpt)	Contained Ag kOz	Cu Grade (%)	Contained Cu klbs	Pb Grade (%)	Contained Pb klbs	Zn Grade (%)	Contained Zn klbs
Total Measured	350	55.08	620	1.25	14	0.13	1,018	1.08	8,357	2.25	17,370
Total Indicated	910	42.37	1,239	1.23	36	0.17	3,427	1.11	22,301	2.40	48,144
Total Measured and Indicated	**1,260**	**45.89**	**1,859**	**1.23**	**50**	**0.16**	**4,445**	**1.10**	**30,658**	**2.36**	**65,514**
Total Inferred	612	27.90	549	0.93	18	0.12	1,558	1.38	18,678	2.39	32,307

The following Mineral Resources are reported at an AuEq grade of 1.35 g/t. Table 14-11 lists Cinco de Mayo mineral resources. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Table 14-11 Cinco de Mayo Measured, Indicated, and Inferred Resources

Classification	kTonnes	Ag Grade (gpt)	Contained Au kOz	Au Grade (gpt)	Contained Ag kOz	Cu Grade (%)	Contained Cu klbs	Pb Grade (%)	Contained Pb klbs	Zn Grade (%)	Contained Zn klbs
Total Measured	322	75.53	783	2.75	28	0.58	4,122	1.13	8,050	2.10	14,939
Total Indicated	559	55.28	993	1.73	31	0.47	5,769	1.02	12,596	1.62	19,942
Total Measured and Indicated	**881**	**62.70**	**1,776**	**2.08**	**59**	**0.51**	**9,891**	**1.06**	**20,646**	**1.80**	**34,881**
Total Inferred	135	34.67	151	0.71	3	0.35	1,046	0.71	2,131	1.13	3,385

The following Mineral Resources are reported at an AuEq grade of 1.35 g/t. Table 14-12 lists El Rey mineral resources. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Table 14-12 El Rey Measured, Indicated, and Inferred Resources

Classification	kTonnes	Ag Grade (gpt)	Contained Au kOz	Au Grade (gpt)	Contained Ag kOz	Cu Grade (%)	Contained Cu klbs	Pb Grade (%)	Contained Pb klbs	Zn Grade (%)	Contained Zn klbs
Total Measured	210	99.47	670	0.87	6	0.20	931	2.11	9,730	3.79	17,513
Total Indicated	97	89.67	280	0.74	2	0.24	512	1.67	3,578	3.60	7,708
Total Measured and Indicated	**307**	**96.25**	**950**	**0.81**	**8**	**0.21**	**1,443**	**1.97**	**13,308**	**3.73**	**25,221**
Total Inferred	8	65.79	16	0.73	0	0.26	45	1.18	203	2.95	507

The following Mineral Resources are reported at an AuEq grade of 1.35 g/t. Table 14-13 lists Santiago mineral resources. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Table 14-13 Santiago Measured, Indicated, and Inferred Resources

Classification	kTonnes	Ag Grade (gpt)	Contained Au kOz	Au Grade (gpt)	Contained Ag kOz	Cu Grade (%)	Contained Cu klbs	Pb Grade (%)	Contained Pb klbs	Zn Grade (%)	Contained Zn klbs
Total Measured	302	27.29	265	2.32	23	0.17	1,116	0.25	1,686	0.42	2,780
Total Indicated	151	21.07	102	1.87	9	0.12	387	0.20	677	0.33	1,107
Total Measured and Indicated	**453**	**25.20**	**367**	**2.20**	**32**	**0.15**	**1,503**	**0.24**	**2,363**	**0.39**	**3,887**
Total Inferred	60	14.35	28	1.66	3	0.05	72	0.16	216	0.25	339

The following Mineral Resources are reported at an AuEq grade of 1.35 g/t. Table 14-14 lists Texcalama mineral resources. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Table 14-14 Texcalama Measured, Indicated, and Inferred Resources

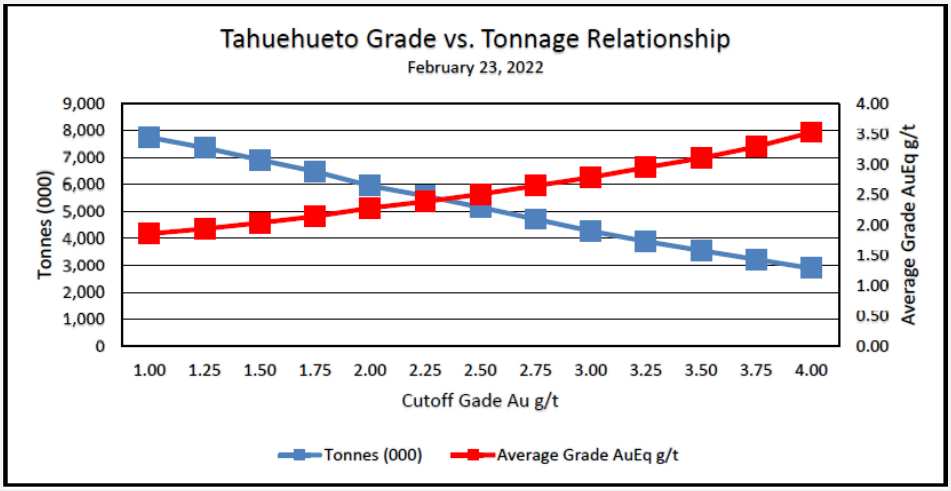
Classification	kTonnes	Ag Grade (gpt)	Contained Au kOz	Au Grade (gpt)	Contained Ag kOz	Cu Grade (%)	Contained Cu klbs	Pb Grade (%)	Contained Pb klbs	Zn Grade (%)	Contained Zn klbs
Total Measured	19	35.86	22	2.92	2	0.17	70	2.11	870	3.33	1,369
Total Indicated	56	33.60	60	2.94	5	0.16	201	2.25	2,774	3.34	4,110
Total Measured and Indicated	**75**	**34.01**	**82**	**2.90**	**7**	**0.16**	**271**	**2.20**	**3,644**	**3.31**	**5,479**
Total Inferred	14	33.83	16	2.94	1	0.16	52	2.22	699	3.33	1,049

Mineral resources at Tahuehueto are sensitive to the selection of the reporting cut-off grade. To illustrate this sensitivity, the block model quantities and grade estimates within the interpreted vein models are presented in Table 14-15 at linear increases in the cut-off grades for measured, indicated and inferred Au mineral resources at Livengood. The same results are presented graphically in Figure 14-2. The reader is cautioned that Table 14-15 should not be misconstrued as a mineral resource. The reported quantities and grades are only presented as a sensitivity of the resource model to the selection of cut-off grade. Mineral resources are not mineral reserves and do not have demonstrate economic viability.

Table 14-15 Tahuehueto Resource by Cut-Off

	Measured			Indicated			Measured + Indicated			Inferred		
Cutoff	Tonnes	Au Grade (gpt)	Au kOz	Tonnes	Au Grade (gpt)	Au kOz	Tonnes	Au Grade (gpt)	Au kOz	Tonnes	Au Grade (gpt)	Au kOz
1.00	4,149	2.28	305	2,566	1.52	126	6,715	1.99	430	1,040	0.98	33
1.25	3,964	2.37	302	2,453	1.58	125	6,417	2.07	427	946	1.04	32
1.50	3,744	2.49	299	2,294	1.67	123	6,038	2.18	422	875	1.08	30
1.75	3,509	2.62	296	2,165	1.74	121	5,674	2.28	417	810	1.13	29
2.00	3,233	2.79	290	1,994	1.85	118	5,227	2.43	408	724	1.20	28
2.25	3,077	2.89	285	1,847	1.95	116	4,924	2.53	401	652	1.27	27
2.50	2,894	3.01	280	1,693	2.04	111	4,587	2.65	391	571	1.36	25
2.75	2,693	3.14	272	1,520	2.16	106	4,213	2.79	378	501	1.44	23
3.00	2,503	3.28	264	1,345	2.28	99	3,848	2.93	362	431	1.48	21
3.25	2,346	3.41	257	1,196	2.45	94	3,542	3.08	351	353	1.59	18
3.50	2,207	3.54	251	1,082	2.58	90	3,289	3.23	341	267	1.58	14
3.75	2,055	3.71	245	963	2.76	86	3,018	3.40	330	205	1.57	10
4.00	1,907	3.89	239	830	3.05	81	2,737	3.64	320	161	1.69	9

Figure 14-2 Tahuehueto grade vs tonnage relationship



The mine design and Mineral Reserve estimate have been completed to a level appropriate for pre-feasibility studies. The Mineral Reserve estimate stated herein is consistent with the CIM Standards on Mineral Resources and Mineral Reserves and is suitable for public reporting. As such, the Mineral Reserves are based on Measured and Indicated Resources, and do not include any Inferred Resources.

The Tahuehueto Resource Block Models were used in conjunction with the Stope Optimizer module within Maptek Vulcan™ software to identify mineable shapes within five mineralized vein systems in the four Tahuehueto resource block models. In this approach, the resource model blocks have attributes of volume, density, and metal grades for gold, silver, lead, zinc and copper. Other inputs for the analysis were the estimated production unit cost ($78.55 per tonne) and a Net Smelter Recovery model that calculates the economic value of the block based on input parameters of metal recovery, smelter tariffs, royalties and metal price assumptions. The software outlined mineable volumes considering input parameters of vertical stope interval (15 m sill to sill), minimum mining width (3.5 m for sublevel development and 2.1 m for panels), and test for mining continuity and production cost against NSR economic value. The model developed stope geometries on 15 m vertical intervals. Mineable shapes were defined in five veins at Tahuehueto; Creston, Perdido, Rey, Cinco and Santiago.

The NSR calculations coded to the resource model and used as inputs for the Stope Optimizer runs are not the same calculations as the NSR used for the economic analysis of the project. The economic model from the previous technical report was used to estimate the percentage value (Table 15.4) of each commodity in terms of metal values listed in Table 15.1. Copper value was not included in the NSR calculation although the current revenue stream does include a copper revenue later in the mine life. The NSR was based on the inputs and calculations presented in Tables 15.1 through 15.4.

Table 15-1 Metal Prices Used for NSR Calculations

Metal	Units	Value
Gold	$/oz	1,500
Silver	$/oz	20.00
Lead	$/lb	0.90
Zinc	$/lb	1.15

Table 15-2 Lead Concentrate NSR Input Parameters

Item	Au	Ag	Cu	Pb	Zn
Distribution % (Recoveries)	77.1	62.8	0.0	85.5	9.0
Payable %	95.0	95.0	0.0	95.0	0.0
Deductions & Penalties $/DMT	188.60				
Treatment Charge $/DMT	120.00				

Table 15.3 Zinc Concentrate NSR Input Parameters

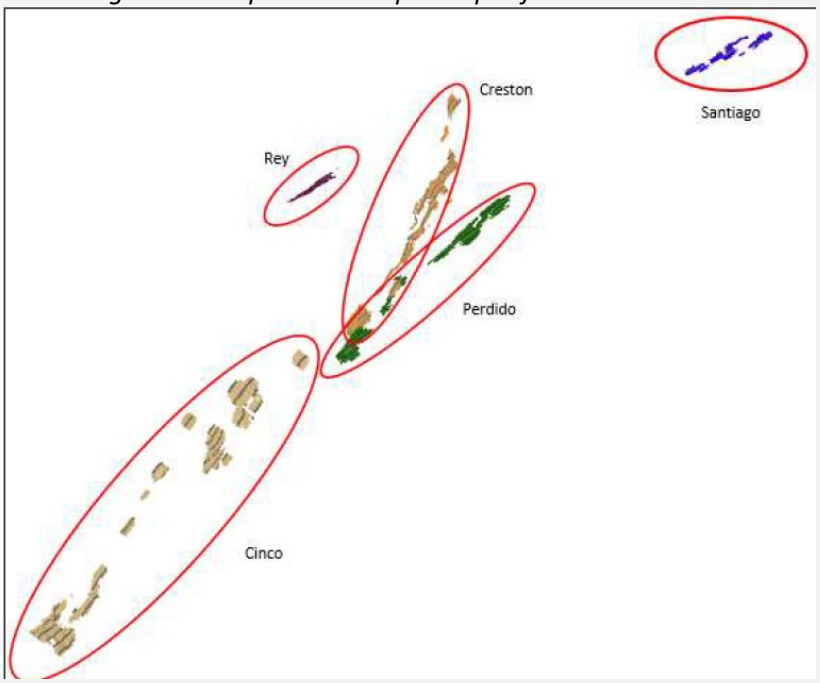
Item	Au	Ag	Cu	Pb	Zn
Distribution % (Recoveries)	11.00%	11.70%	0.00%	2.00%	80.00%
Payable %	70.00%	70.00%	0.00%	0.00%	85.00%
Penalties $/DMT	85.90				
Treatment Charge $/DMT	215.00				

Table 15.4 NSR Calculations

Commodity	Mine Life Average Percentage of Price Realized
Zinc Price Percentage Realized per Ore Tonne	50.84%
Lead Price Percentage Realized per Ore Tonne	75.23%
Gold Price Percentage Realized per Ore Tonne	73.15%
Silver Price Percentage Realized per Ore Tonne	59.04%

Mining shapes defined by the Stope Optimizer software have vertical and horizontal continuity and are illustrated in Figure 15-1 for the five veins. Output for each stope shape consisted of volume, tonnage, grades, NSR Values, and density for the Measured and Indicated portion of the individual stope shapes. The data then was tabulated in an inventory spreadsheet segregating panels (11 m high) and sublevel development (4 m high). Both the panels (3.5 m width) and sublevel development stopes (varied widths) were generated in 10 m horizontal increments along strike. The NSR value for each tonne of ore in the mine plan was calculated by the sum of the Individual Commodity Price times the Realized Commodity Price Percentage times the Model Projected Metal Contained (% or Ounce/tonne).

Figure 15-1 Optimized Stope Shapes for the Five Veins



Design rules were applied to the individual sublevel development and panel shapes. The optimizer produced stope blocks based upon the rules. The minable reserve estimation was determined utilizing the designed shapes cut against the block model. Measured and indicated blocks inside the mine shapes produced the mineralization results. Blocks outside the measured and indicated, typically inferred or waste blocks was also included in the volume; however, these fractions were applied zero grade resulting in the planned internal dilution.

A mine design was created in the Vulcan™ model to define access and mining of the stope shapes defined by the Stope Optimizer. The resulting design is shown in Figure 15-2. The defined stope shapes and development excavations were scheduled to produce a basis for economic analysis. The resulting reserve is classified as Probable and is listed in Table 15.5. No Proven Reserves were defined due to the limited definition resource drilling, limited definition by exploratory mining and the lack of geotechnical data that addresses underground mining.

Figure 15-2 Tahuehueto Reserve Mining Shapes and Developments (Looking North, NTS)

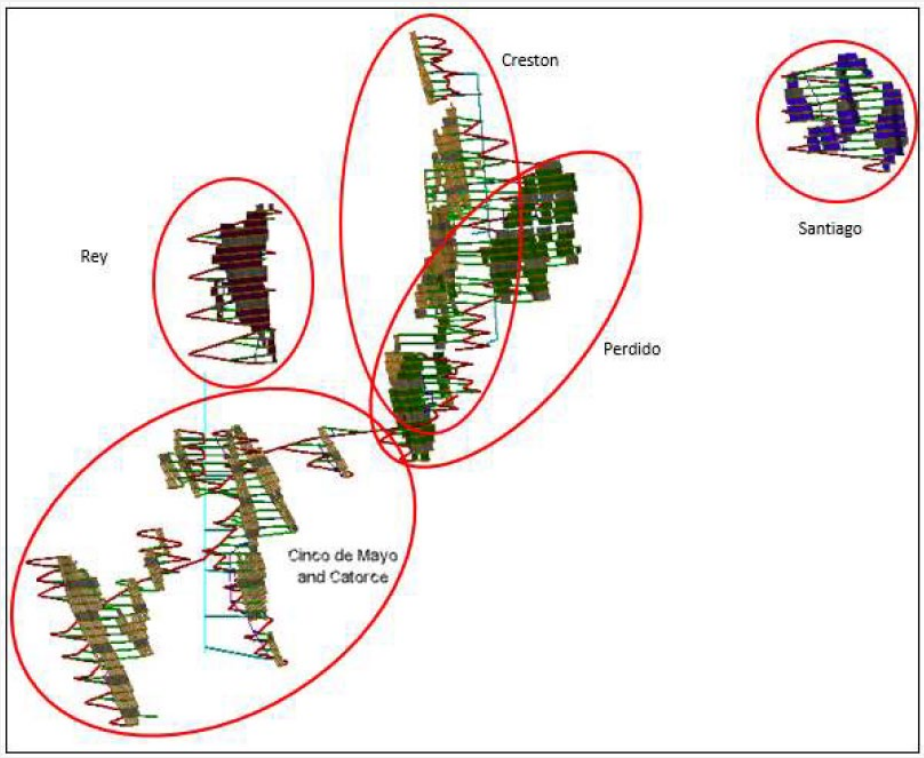


Table 15-5 Tahuehueto Reserve Estimate Summary from Scheduled Stopes

Classification	kTonnes	Ag Grade (gpt)	Cont Ag kOz	Au Grade (gpt)	Cont Au kOz	Cu Grade (%)	Cont Cu klbs	Pb Grade (%)	Cont Pb klbs	Zn Grade (%)	Cont Zn klbs
Proven Reserves	2,358	51.93	3,937	2.89	219	0.27	14,246	1.18	61,429	2.07	107,515
Probable Reserves	1,227	46.48	1,834	1.90	75	0.23	6,304	0.96	25,929	1.63	44,125
Total Reserves	**3,585**	**50.06**	**5,770**	**2.55**	**294**	**0.26**	**20,550**	**1.11**	**87,357**	**1.92**	**151,640**

Mineral Reserves are estimated using metal price forecasts of $0.92/lb for lead, $1.14/lb for zinc,

$3.60/lb for copper, $1,647.50/oz for gold and $21.64/oz for silver. Totals may not add due to rounding.

The foregoing mineral reserves are based upon and are included within the current mineral resource estimate for the Project.

(9) Mining Operations

Mineralization at Tahuehueto occurs in several near vertical veins under mountainous terrain, as can be seen in Figure 16-1. The figure demonstrates surface expression of the mineralization, an elaborate network of surface roads, current portal locations, and surface infrastructure. Following completion of the June 2021 Resource Block Model and utilizing the NSR determination discussed in Section 15, five veins were identified as reserves; Creston, Perdido, Cinco, Rey, and Santiago.

The geometry and orientation of the Tahuehueto mineralized veins are conducive to sublevel stoping. The Perdido, Creston, and Rey primary development intersects the veins near the midpoint of the target mineralization allowing for bottom-up and top-down sequencing; the Santiago and Cinco veins are developed as top-down mining only. A 3-meter pillar every three sublevels may be utilized to maintain rock integrity and proper backfill sequencing. Figures 16-2 and 16-3 demonstrate sublevel top-down sequencing and bottom-up sequencing, respectively. Detailed mining methodology is discussed in Section 16.3

Altaley has developed approximately 1,200 meters horizontal and 75 meters of vertical development off the 20 Level and 350 meters plus several ore cuts off the 12 Level. All development completed to date accesses the Perdido and Creston veins in preparation of being in a position to produce ore following commissioning of the mill.

Overhand Cut and Fill mining method with conventional drilling, blasting, mucking and hauling, scaling and ground support installation and backfilling with unconsolidated, mined waste materials was evaluated as a trade-off study. The Cut and Fill results improved metal extraction; however, it was determined that excessive development was required accessing the levels off the decline resulting in reduced economics. Table 16-1 provides the Sublevel versus Cut and Fill Trade-Off Results Comparison.

Table 16-1 Sublevel versus Cut and Fill Trade-Off Results

	Mining Method		Variance (CF v Sub	
	Sublevel Stoping	Cut and Fill	Value	%
Physicals				
Tonnes				
Drift Mining (CF, Sublevel Dev)	835,065	3,807,255	2,972,190	78%
Bulk Mining (Sublevel)	2,705,182	-	(2,705,182)	0%
Total Tonnes	*3,540,247*	*3,807,255*	*267,008*	*7%*
Backfill	2,793,176	2,665,079	(128,098)	-5%
Grades				
Au, (g/t)	2.6	2.7	0.1	4%
Ag, (g/t)	50.5	51.4	1.0	2%
Cu, (%)	0.27%	0.26%	0.00%	-1%
Pb, (%)	1.11%	1.12%	0.01%	1%
Zn, (%)	1.91%	1.93%	0.02%	1%
Metal				
Au, (ozs)	294,141	329,852	35,711	11%
Ag, (ozs)	5,749,043	6,297,361	548,318	9%
Cu, (t)	9,413	10,004	591	6%
Pb, (t)	39,372	42,614	3,242	8%
Zn, (t)	67,735	73,508	5,773	8%
Development				
Capital - Horizontal, m	21,641	26,283	4,642	18%
Capital - Vertical, m	2,133	2,705	572	21%
Capital - Shaft, m	666	536	(130)	-24%
Expensed, Horizontal, m	17,430	44,513	27,083	61%
Expensed, Vertical, m	-	-	-	0%
Economics - Costs				
Capital Costs				
Capital - Horizontal, $USD	$ 24,349,062	$ 23,250,391	$ (1,098,671)	-5%
Capital - Vertical, $USD	$ 667,800	$ 768,678	$ 100,878	13%
Capital - Shaft, $USD	$ 399,600	$ 321,600	$ (78,000)	-24%
Operational Costs				
Expensed Development, $USD	$ 21,951,400	$ 53,605,457	$ 31,654,057	59%
Opex - Drift Mining, $USD	$ 15,992,514	$ 69,858,120	$ 53,865,606	77%
Opex - Bulk Mining, $USD	$ 37,845,384	$ -	$ (37,845,384)	0%
Opex - Backfill, $USD	$ 2,888,505	$ 4,400,974	$ 1,512,469	34%
Supplies	$ 36,871,330	$ 43,235,164	$ 6,363,834	15%
Haulage	$ 3,553,412	$ 3,545,872	$ (7,540)	0%
Equipment Maintenance	$ 2,093,710	$ 2,173,855	$ 80,145	4%
Quality Costs	$ 2,548,656	$ 2,606,580	$ 57,924	2%
Direct Mining Unit Cost				
Total OPEX Cost, $USD	$ 123,744,911	$ 179,426,022	$ 55,681,111	31%
OPEX Unit Cost, $USD/t	$ 34.95	$ 47.13	$ 12.17	26%
Total OPEX + CAPEX, $USD	$ 149,161,373	$ 203,766,690	$ 54,605,318	27%
OPEX + CAPEX Unit Cost, ($USD/t)	$ 42.13	$ 53.52	$ 11.39	21%

Figure 16-1 Tahuehueto General Surface Arrangement (Looking North East) with Projected Surface Mineralization Contact

Figure 16-2 Schematic Sublevel Bottom-Up Sequencing

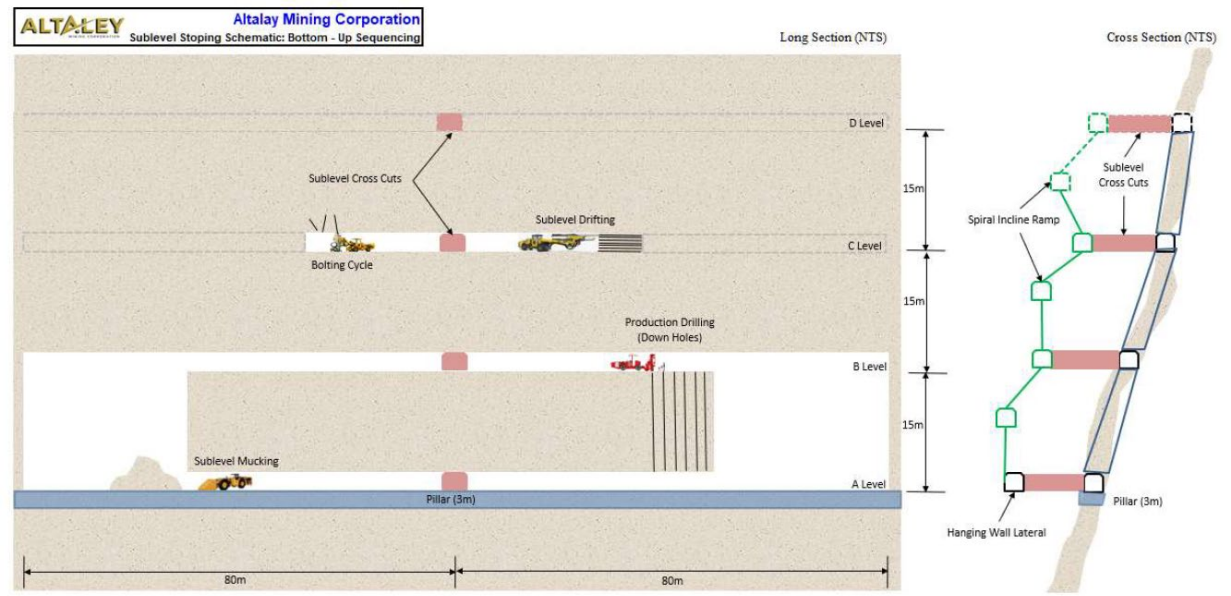
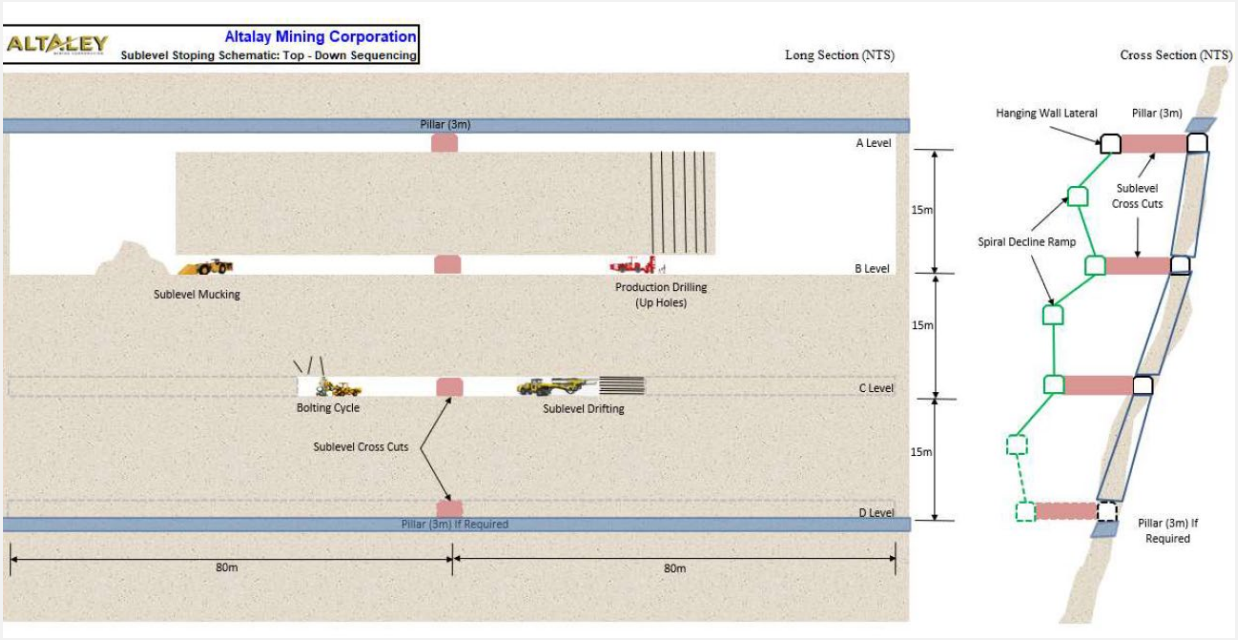


Figure 16-3 Schematic Sublevel Top-Down Sequencing



In 2019, Altaley commissioned Real De La Bufa S.A. de CV to complete a geotechnical study for the Andesite and Diorite rock mass as well as the exposed Creston and Perdidomineralization. The study has been completed utilizing two separate methodologies, the RMR classification and Q System. Based on the parameters of the characterization of both RMR and Q, it shows good rock quality results for the lithological units resulting in no ground support requirements. The geomechanical behavior of the Andesite and Dirorite are affected by the rock water content, as it decreases the resistance of the rocks to rupture (the rock is more easily deformable) and facilitates the displacement of some blocks with respect to others according to the directions parallel to the rupture planes, by acting as a "lubricant". Due to the dry underground environment this is not a concern; however, mining crews need to be aware of potential risks when encountering wet conditions.

Based on the geotechnical structural surveys of the veins, it has been observed that the Creston and Perdido veins off level 12 have at least 3 fracturing systems or families, predominate faults trending NW- SE. These main characteristics are taken into account for the calculation of the rock mass rating. The RMR and Q methodologies generate a slightly different classification in the veins; however, both estimations classify the mineralization as good quality rock. The vein as such has a strong salting so it behaves very stable even for spans more than 6 meters. The generated results from the study indicate there is no requirements for ground support in the veins. The contact between the mineralization and waste produces the lowest Q values and could have stability problems. The contact may require systematic support especially when it is developing. Constant inspections must be performed as typical underground work and variability of lithologies present risks.

In the Author’s opinion, the rock stability of the excavated drifts is sufficient as a preliminary design basis but confirming rock mechanics and geotechnical assumptions should be performed to verify the mining approach and details of the PFS layout and design.

Nominal development drifting at Tahuehueto is 3.5 m x 4.0 m utilizing conventional drill and blast mining methods. In general, the mining excavations had no rock support installed during construction. Figure 16- 4 is a recent photograph of the portal of one of the previously excavated drift excavations, reflecting strong rock and generally good local rock conditions at the portal access. No rock bolting or surface support system was employed for the excavations, and the excavations are reported by Altaley to remain in generally good condition.

Figure 16-4 Photograph of the Rock Conditions in the Portal Excavation at Level 10

In 2016, the pre-existing excavation at Level 10 was enlarged to 5 m x 5 m to produce the mill test sample discussed in Sections 13.5 and 24 of this report. No rock bolting or surface support was installed inside the excavation during or after construction. Chain-link mesh had been installed to protect the entryway from loose rock on the exterior portal face, however, no rock bolts or other surface support was installed in the rock surfaces during enlargement of the drift to 5 m x 5 m.

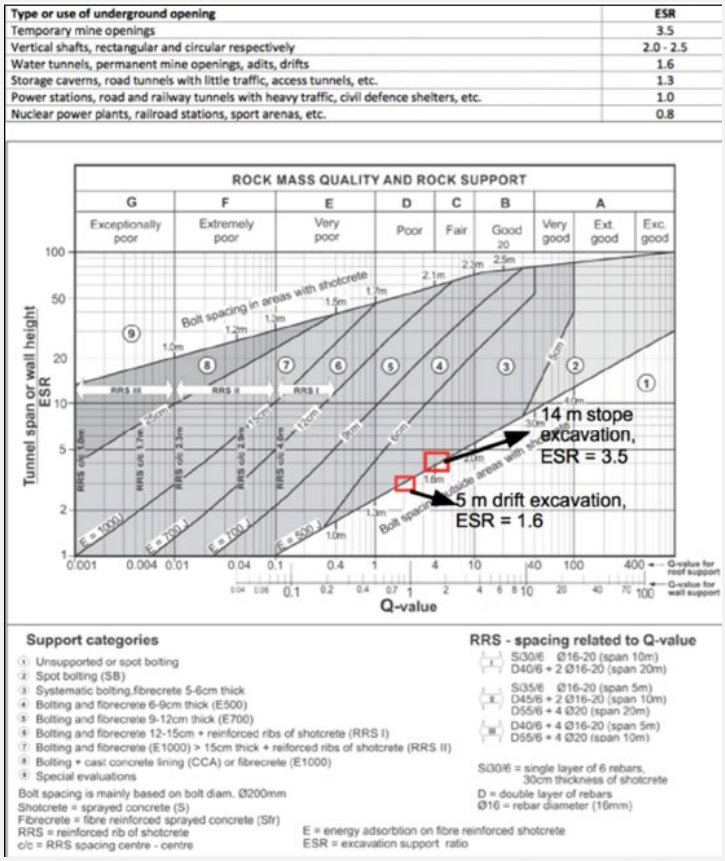
The geotechnical assumptions have not changed from the previous submittal: NI43-101 Technical Report Preliminary Feasibility Study dated January 20, 2017. An empirical design approach from the Norwegian Geotechnical Institute (NGI – Q System (Barton, 1974)) has been used to estimate the rock mass quality indicated by Tahuehueto existing mining excavations. In this approach, a rock mass quality parameter (Q) is correlated with a dimension index (Equivalent Span) and also correlated with ground support installed as indicated by case history data for tunnel excavations used in the system. The estimated rock mass quality based on the dimensions and performance of the existing excavations that have been constructed at Tahuehueto are shown in the design chart in Figure 16-7 (Barton, 1974). The design points are plotted at the boundary between the “No Support Required”, Region 1, and the regions requiring support.

In Figure 16-7, the maximum span produced in existing production mining at Tahuehueto was approximately 14 m square, which assuming an Engineering Support Ratio (ESR) value of 3.5 for

temporary mining excavations, gives an Equivalent Span of 4 m. The design point for standard development drifts assumed for the Tahuehueto PFS of 5 m spans, adjusted for an ESR value of 1.6 for permanent mine openings would be 3.1 m. The indicated range in Q for stable excavations without support or spot bolting would be Q =2-4, or relative rock quality of "poor".

The geotechnical design for Tahuehueto was guided by the mining excavation dimensions indicated by the design chart in Figure 16-7, with the additional condition that systematic rock support would be applied on a proportion of the excavated roof area based on the excavation span and by adjustment of the extraction ratio based on the average width of mineralization on each 11 m vertical lift.

Figure 16-7 NGI Q-System Empirical Tunnel Support Design System showing Maximum Size Stope Excavation from Tahuehueto Existing Mining and PFS Drift Dimensions

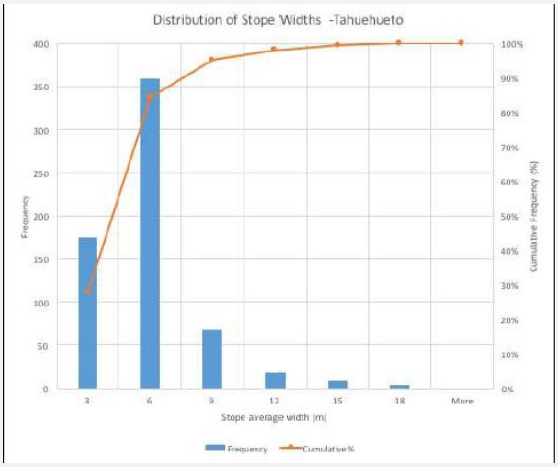


The sublevel mining method exposes operators to the rock surface during the development of the sublevels. If the ground conditions deteriorate, then artificial support shall be installed to maintain integrity. Sublevels (nominally 3.5 m wide by 4 m high) are developed on 11 m centers along the mineralized dip, panel blast rings are drilled along dip of the mineralization nominally on 1 m centers. The stope mining would then proceed horizontally 3 m increments. During the excavation of the panel, mucking operations shall be performed utilizing remote loaders. The minimum mining width was assumed to be 3.5 m, so diluting material would be added to increase any mining width under 3.5 m.

For all other mineralization widths, it was assumed that 0.25 m of waste material (at zero (0) grade) would be extracted on both walls (ribs) of the stope advance.

An extraction ratio was calculated based on the width (span) of the stope for 15 m vertical lifts. The extraction ratio was based on a transition of the stope from full stope width (for mining widths up to 6 m), to stopes with 5 m long (along stope strike) alcoves between 5 m strike pillars. The alcove was assumed to be excavated to the mineralization boundary perpendicular to the stope strike axis. If the average width of the stope was greater than 6 m, the extraction ratio was calculated assuming a 5 m strike drift, with 5 m alcove cuts perpendicular to strike between 5 m rib pillars. Histograms showing the resulting distribution of the stope widths and stope extraction ratios are presented in Figure 16-8.

Figure 16-8 Distribution of Average Stope Widths for Tahuehueto Vulcan Stope Optimizer Output



The rock stability in the existing Tahuehueto excavations of limited extent was assumed to be representative of the conditions that will occur with the progress of vertical sublevel stoping at Tahuehueto, or of the more extensive drift development required for the mine development. If ground conditions deteriorate artificial ground support consisting of 1.8 m friction rock stabilizers (rock bolts) on a 1.2 m pattern in the back, with welded wire mesh and steel straps shall be utilized on the specified portion of the development drifts and stope excavations.

In the operating assumptions used for cost, manpower and equipment, ground support was assumed to be installed after each blast event (either drift round or slab round). The ground support operation would consist of inspection and scaling of the freshly blasted area during and after loading (mucking) the blasted material. Scaling was assumed to be performed with the LHD bucket of the surface area roof and sidewalls.

Due to limited surface area for a waste dump, a mine plan had to be generated utilizing underground waste rock placement. Sublevel stoping bottom-up sequencing quickly provides the necessary platform for waste rock storage underground. Following the extraction of the panel between two sublevels; waste fill can immediately be placed; which will then be utilized for the mucking platform for the next panel; see Figure 16-2. All backfill requirements are produced from waste development and

coordinated with the production sequencing for direct underground placement in the open voids. Blasted waste assumes a swell factor of 30%; therefore, over the life of mine ore volumes exceed available waste by 24%. This variance is favorable as there is enough underground capacity to house all of the waste generated. The lack of backfill does not impact the production schedule as the sublevel mining sequence allows for unfilled stopes.

The mining layout is illustrated in Figure's 16-8, 16-9, and 16-10 providing isometric views of the mining and development layout of the Creston and Perdido Veins, Santiago Vein, and the Cinco and Rey Veins; respectively. NSR values determined economic parameters and the block model dictated the nominal dimensions and orientation of the excavations. These parameters were applied to the Vulcan Stope Optimizer which produced the individual mining blocks containing volume, grade, and NSR values.

The development layout in the Vulcan model is produced by strings (lines), a primitive attribute was applied to theses strings producing a volume. Main development drifts are shown as red lines and provide the routes to get equipment from the surface to the stope excavations. Green lines are used to denote access crosscut ramps that allow the equipment to gain entry to the stopes; purple lines denote vertical ventilation raises, and blue lines represent ventilation cross cuts. The light-blue line in the Cinco vein system denotes a vertical production shaft allows deep ore to be economically hoisted to surface; the light-blue line in the Creston/Perdido vein structure dictates a vertical ore pass.

Figure 16-9 Creston and Perdido Isometric View (NTS)

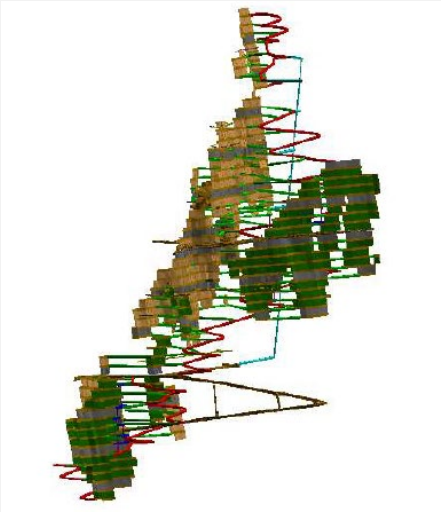


Figure 16-10 Santiago Isometric View (NTS)

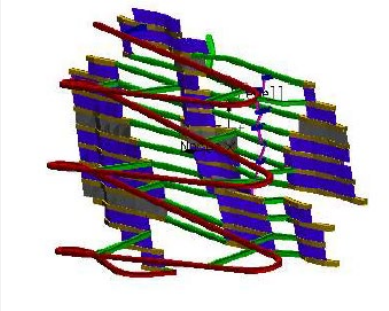
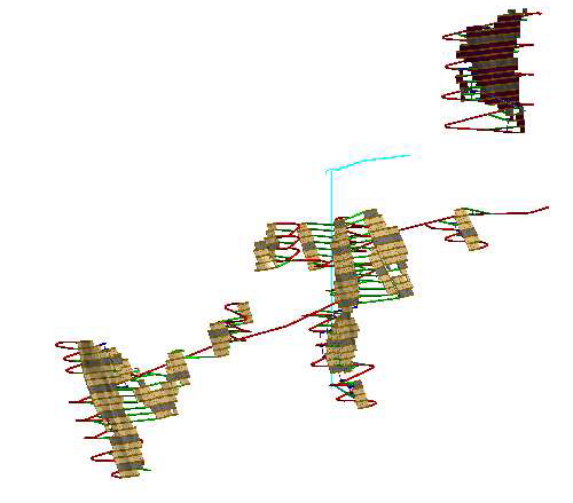


Figure 16-11 Cinco and Rey Isometric View (NTS)



The mine is accessed from surface is via existing portals or by new portals excavated at various locations on the mountain side. The location of the new portals is governed by the existing road network on the mountain side.

For upper Creston and Perdido the mined ore would be hauled by 20 tonne capacity underground haul trucks from the stopes to the central ore pass. The bottom of the ore pass is located at the 20 Level where the ore will be rehandled and hauled directly to the mill facility. For Lower Creston, Rey, and Santiago, the mineralization would be hauled by underground trucks directly to the mill. Ore from Cinco will be transported to draw points in the vertical shaft where it will be hoisted to surface and dumped into ore stockpile. Surface haul fleet will rehandle the material and deliver to the mill.

Ventilation air would be drawn into the mine from surface portals (either existing mined excavations or newly developed ramps) and into the stopes. Ventilation raises (purple lines) would be excavated vertically along the stope blocks and would be connected between the main ventilation levels (intake and exhaust) before production could begin in the stope block. Ventilation raises (3.0 m x 3.0 m) would be constructed at each location with a short ventilation access drift connecting to the stope. The

ventilation raises would provide conduits for electrical power, compressed air, make up water into the stope blocks, and a secondary egress ladder network would also be constructed.

Rock mechanics analysis of the layout should be conducted to project rock stability impacts of the planned geometry. No analysis of ramp locations in the hanging wall has been conducted, and interactions between upper parts of Creston and Perdido need to be simulated. Stand-off distances of ramps and ventilation raises need to be evaluated to assure stability of the raise and infrastructure as the mining proceeds vertically. Table 16.2 illustrates Material Densities, Moisture Contents and Design Criteria.

Table 16.2 Material Densities, Moisture Contents and Design Criteria

Development Waste	Units		Comments
Insitu Density - Development Waste	2.750	tonne / m3	Altaley
Insitu Tonnage Factor- Development Waste	0.364	m3 / tonne	Calculated
Swell - Development Waste	30%		Altaley
Broken Density - Development - Dry	2.115	tonne / m3	Calculated
Broken Tonnage Factor - Development - Dry	0.473	m3 / tonne	Calculated
Moisture	6%	weight	TBD
Broken Density for Development - Wet	2.242	tonne / m3	TBD
Broken Tonnage Factor Development - Wet	0.446	m3 / tonne	Calculated

Production Ore	Units		Comments
Insitu Density - Ore	2.830	tonne / m3	Altaley
Insitu Tonnage Factor - Ore	0.353	m3 / tonne	Calculated
Swell - Ore	30%		Altaley
Broken Density - Ore Dry	2.1769	tonne / m3	Calculated
Broken Tonnage Factor - Ore Dry	0.459	m3 / tonne	Calculated
Moisture	6%	weight	TBD
Broken Density for Production - Wet	2.2423	tonne / m3	TBD
Broken Tonnage Factor for Production - Wet	0.446	m3 / tonne	Calculated
Overbreak/Dilution LHS			TBD
Miscellaneous			
Backfill Density	2.242	tonne / m3	Waste ROM
Backfill Tonnage Factor	0.446	m3 / tonne	Calculated

Development Criteria	Units		Comments
Maximum Grade on Ramps	14.0%		
Design Grade on Ramps	14.0%		
Minimum Grade on Horizontal ramps draining to Sumps	1.0-3%		
Maximum Grade Curved Ramps	14%		
Maximum Grade at intersections	3%		
Minimum Curve Radius - Main Ramps	15.0	m	Equipment Dependent
Minimum Curve Radius -Secondary Access	15.0	m	Equipment Dependent
Minimum Pillar between Ramps	15.0	m	
Nominal Dimensions to Arch X-Section	96.0%		of flat back neatline

Production Criteria	Units		Comments
Target Tonnes/Monthe ore rate	28,000	Tonnes/Month	
LOM Average Material Move Tonnes/Day	1,500	Tonnes/day	
Haulage Design Operating Hours per Day	18.0		75% Availability
Design Operating Days per Year	360		
Design Milling Rate	1,000	Tonnes/day	
Operating Hours per Day	24		Continuous operation

The Vulcan™ Stope Optimizer inventory of stope shapes and development strings were scheduled utilizing Microsoft Excel. The resulting schedule produced the development and production schedule including the metal profile.

Mine scheduling was controlled by the development primary ramps and ventilation circuits to provide fresh air to the working areas. For individual stoping blocks, a ramp would be developed between the

lower and upper extents of the contiguous stope areas, which would be connected by a vertical raise. The ventilation raises would also provide secondary egress from the stope working area and provide the pathways for electrical, compressed air and make-up water services required for mining. Sustaining development to the various stope production areas was scheduled to maintain a sufficient buffer of stopes ahead of required ore production.

Development and production schedules were driven by the peak mill throughput of 336,000 tonnes per year. Operating schedule is based on 24 hour – 7 day a week, 360 days per year.

The development rates of advance per underground operating day used for the scheduling were:

- Ramps and access drifts = 3 meters/day (single heading); 13 meters/day (Mine Total)
- Sublevel Advance = 3 meters/day (single heading); 6 meters/day (Mine Total)
- Sublevel Extraction = 4 rings/day (single stope); 8 rings/day (Mine Total)

The development for the mine focuses on creating the access and ventilation circuit for the first stoping block in the upper Creston and Perdido, extending the ramp system for mining of the upper Creston, and on creating the drift development for the haulage level. Initial ore production would begin in the Upper Creston and Perdido veins at a nominal rate of 350 tonnes/day ramping up to 1,000 tonnes per day over 4 months. Expansion of the number of stoping blocks would allow ore production to reach its nominal steady state rate of 1,000 tonnes/day (underground operating day). Ore production is scheduled predominantly from the Creston and Perdido through year 6; following development and mining into the Cinco with supplemental feed from the Santiago and Rey veins for LOM.

The physical units in the underground production schedule are listed in Table 16.3 and 16.4, for the detailed mine output, the Production Schedule and Development Schedule by year, respectively.

Table 16.3 Tahuehueto Underground Production Schedule by Year

			LOM	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
MINE TOTAL - PRODUCTION SCHEDULE															
Sublevel Drive		Tonnes	835,065	90,862	91,207	85,962	90,557	78,483	81,379	90,274	89,660	74,253	33,220	29,208	-
Grades	AG (g/t)		47.2	33.0	35.7	38.3	39.9	40.5	42.0	67.5	57.7	82.5	39.5	32.6	-
	AU (g/t)		2.42	4.27	3.15	2.13	2.27	2.47	2.48	1.98	1.62	1.21	2.20	2.44	-
	CU (%)		0.25	0.22	0.29	0.29	0.24	0.13	0.17	0.28	0.31	0.30	0.19	0.25	-
	PB (%)		1.06	0.84	0.80	1.05	1.14	1.16	1.17	1.21	1.32	1.45	0.40	0.31	-
	ZN (%)		1.85	0.94	1.09	1.96	2.51	2.06	2.29	2.15	2.25	2.45	0.67	0.46	-
Metal	Ag (ozs)		1,267,442	96,402	104,628	105,949	116,281	102,295	109,934	195,861	166,361	196,903	42,235	30,593	-
	Au (ozs)		64,868	12,474	9,232	5,881	6,616	6,222	6,489	5,757	4,665	2,891	2,345	2,295	-
	Cu (t)		2,075	200	266	253	217	100	140	256	282	226	63	73	-
	Pb (t)		8,866	761	733	905	1,032	909	953	1,096	1,179	1,073	134	90	-
	Zn (t)		15,423	858	992	1,688	2,271	1,618	1,860	1,942	2,019	1,818	223	133	-
Value	nsr ($/t)		142.84	187.86	150.65	130.68	144.69	146.28	150.41	141.48	127.69	127.21	107.17	109.08	-
	nsr ($)		119,278,441	17,069,489	13,740,502	11,233,646	13,102,327	11,480,131	12,240,087	12,771,864	11,448,477	9,445,866	3,560,151	3,185,901	-
Panel		Tonnes	2,705,182	140,988	244,793	250,038	245,443	250,155	253,561	245,726	246,340	261,747	302,780	263,611	-
Grades	AG (g/t)		51.5	41.4	40.1	40.2	37.9	38.5	41.9	43.4	61.6	93.6	71.2	46.5	-
	AU (g/t)		2.64	3.32	2.83	3.30	3.82	3.02	2.58	2.80	2.09	1.64	1.87	2.28	-
	CU (%)		0.27	0.34	0.27	0.31	0.21	0.27	0.21	0.13	0.18	0.26	0.41	0.38	-
	PB (%)		1.13	1.46	1.22	0.95	0.85	0.98	1.31	1.14	1.17	1.50	1.16	0.81	-
	ZN (%)		1.93	1.71	1.48	1.06	1.66	1.98	2.29	2.61	2.45	2.63	2.18	1.08	-
Metal	Ag (ozs)		4,481,610	187,550	315,254	323,018	299,195	309,851	341,654	342,994	487,769	787,403	692,951	393,973	-
	Au (ozs)		229,273	15,050	22,256	26,518	30,123	24,297	21,054	22,089	16,567	13,788	18,248	19,283	-
	Cu (t)		7,338	477	670	763	527	676	534	325	436	679	1,250	1,001	-
	Pb (t)		30,506	2,058	2,995	2,363	2,075	2,445	3,318	2,794	2,880	3,925	3,521	2,133	-
	Zn (t)		52,313	2,408	3,624	2,648	4,084	4,955	5,808	6,412	6,045	6,897	6,597	2,835	-
Value	nsr ($/t)		154.33	176.66	152.34	159.41	183.15	161.34	156.11	165.75	146.29	149.71	138.62	123.77	-
	nsr ($)		417,502,256	24,907,596	37,291,089	39,857,394	44,953,057	40,361,226	39,582,466	40,729,598	36,035,956	39,186,207	41,969,865	32,627,802	-
Total (Sub+Panel)		Tonnes	3,540,247	231,850	336,000	336,000	336,000	328,638	334,940	336,000	336,000	336,000	336,000	292,819	-
Grades	AG (g/t)		50.5	38.1	38.9	39.7	38.5	39.0	41.9	49.9	60.6	91.1	68.1	45.1	-
	AU (g/t)		2.58	3.69	2.91	3.00	3.40	2.89	2.56	2.58	1.97	1.54	1.91	2.29	-
	CU (%)		0.27	0.29	0.28	0.30	0.22	0.24	0.20	0.17	0.21	0.27	0.39	0.37	-
	PB (%)		1.11	1.22	1.11	0.97	0.92	1.02	1.28	1.16	1.21	1.49	1.09	0.76	-
	ZN (%)		1.91	1.41	1.37	1.29	1.89	2.00	2.29	2.49	2.40	2.59	2.03	1.01	-
Metal	Ag (ozs)		5,749,053	283,952	419,882	428,967	415,476	412,146	451,588	538,855	654,130	984,306	735,186	424,565	-
	Au (ozs)		294,141	27,524	31,489	32,399	36,739	30,520	27,543	27,846	21,232	16,679	20,592	21,579	-
	Cu (t)		9,413	677	936	1,016	745	777	673	581	717	905	1,312	1,074	-
	Pb (t)		39,372	2,819	3,727	3,269	3,107	3,354	4,271	3,890	4,059	4,998	3,656	2,223	-
	Zn (t)		67,735	3,266	4,616	4,335	6,355	6,573	7,668	8,354	8,064	8,715	6,820	2,968	-
Value	nsr ($/t)		151.62	181.05	151.88	152.06	172.78	157.75	154.72	159.23	141.32	144.74	135.51	122.31	-
	nsr ($)		536,780,697	41,977,085	51,031,591	51,091,040	58,055,385	51,841,356	51,822,553	53,501,462	47,484,433	48,632,073	45,530,016	35,813,703	-
Sublevel Development Stats															
Sub Advance Average (m/Year)			20,982	2,283	2,292	2,160	2,275	1,972	2,045	2,268	2,253	1,866	835	734	-
Sub Advance Average (m/day)			5	6	6	6	6	5	6	6	6	5	2	2	-

Table 16.4 Tahuehueto Underground Capital and Expensed Development by Year

	LOM	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
MINE TOTAL													
Capital Development													
Horizontal													
Ramps, m	18,157	954	954	954	954	1,329	1,888	1,692	2,093	2,592	2,604	2,143	-
Ore Cross Cuts, m	-	-	-	-	-	-	-	-	-	-	-	-	-
Ventilation Cross Cuts, m	3,175	195	195	195	195	268	346	309	323	457	378	314	-
Shaft Level Station Access, m	309	-	-	-	-	56	98	87	68	-	-	-	-
Vertical													
Shaft, m	666	-	-	-	-	-	198	103	190	100	75	-	-
Ventilation Raise & Ore Pass, m	2,133	149	68	141	141	183	206	179	210	434	228	194	-
Total Capital Horizontal Development, m	21,641	1,149	1,149	1,149	1,149	1,653	2,332	2,088	2,484	3,049	2,982	2,457	-
Total Capital Horizontal Development, tonnes	1,178,325	62,563	62,563	62,563	62,563	90,006	126,950	113,692	135,254	166,018	162,370	133,784	-
Total Capital Vertical Advance, m	2,799	149	68	141	141	183	404	282	400	534	303	194	-
Total Capital Vertical Waste, tonnes	31,373	1,287	587	1,218	1,218	1,581	5,628	3,549	5,507	5,693	3,428	1,676	-
Expensed Development													
Horizontal													
Crosscuts and Laterals, m	17,430	1,296	1,296	1,296	1,296	1,536	1,860	1,716	1,692	1,560	1,882	2,000	-
Vertical													
Miscellaneous Raises, m	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expensed Horizontal Development, m	17,430	1,296	1,296	1,296	1,296	1,536	1,860	1,716	1,692	1,560	1,882	2,000	-
Total Expensed Horizontal Development, tonnes	949,064	70,567	70,567	70,567	70,567	83,635	101,277	93,436	92,129	84,942	102,475	108,900	-
Total Expensed Vertical Advance, m	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expensed Vertical Waste, tonnes	-	-	-	-	-	-	-	-	-	-	-	-	-
Development Stats													
Total Horizontal Development Advance (m/year)	39,071	2,445	2,445	2,445	2,445	3,189	4,192	3,804	4,176	4,609	4,864	4,457	-
Total Horizontal Development Advance (m/day)		7	7	7	7	9	11	10	11	13	13	12	-
Total Horizontal Development Waste Tonnes (t/year)	2,127,389	133,130	133,130	133,130	133,130	173,641	228,227	207,128	227,383	250,960	264,845	242,684	-
Total Horizontal Development Waste Tonnes (t/day)		365	365	365	365	476	625	567	623	688	726	665	-

MGS Contratista Minera S.A. De C.V. is the current contractor on site preparing the mine for production. The contractor has committed the necessary resources to mee the production profile. Currently, Altaley is expecting to maintain this relationship and rely on the contractor to supply the necessary equipment to meet the targets. Therefore, underground equipment determination is not required and relies entirely on MGS.

Aside from the surface support equipment, Altaley will be responsible for all primary material haulage of anything further than 200m from the working levels. Therefore, an engineering study was developed to determine the quantity of the required Altaley truck fleet, Table 16.5 Altaley Truck Fleet presents the findings.

Table 16.5 Altaley Truck Fleet

	LOM	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
TOTAL HAULAGE: 2-12 Hour Shifts													
Scheduled Trucks													
Ataley Owned Trucks		3	2	2	2	3	2	2	4	4	4	-	-
Contractor Owned Trucks		-	2	2	2	2	2	2	2	2	2	2	-
Costs to Operate													
Ataley Owned Trucks	2,898,234	193,300	203,899	189,565	218,323	238,106	233,541	220,175	279,328	415,828	423,702	282,468	-
Contractor Owned Trucks	2,208,422	-	150,524	200,698	183,973	212,875	255,008	238,155	274,023	233,522	237,714	221,930	-
Total Costs	5,106,657	193,300	354,422	390,263	402,296	450,981	488,549	458,330	553,351	649,350	661,415	504,398	-
Total Fuel Consumptions (gallons)	631,352	27,358	38,465	41,177	44,043	51,440	58,435	52,808	70,501	88,376	90,622	68,129	-

The mine underground operating workforce is provided by MGS Contratista Minera S.A. de C.V. This includes mine contractor administration, operating labor, and direct maintenance. Altaley General and Administrative workface are described in Section 21-2. MGS has agreed to the development and production targets and have committed the necessary manpower resources to meet the targets. However, MGS has provided an expected work force necessary to achieve the targets. The projected numbers of underground mine personnel are summarized in Table 16.6.

Table 16.6 Underground MGS Contractor Workforce

Contractor Workforce	Quantity per Shift	Quantity per Day
Mine Operators		
Jumbo Operator	2	4
Jumbo Helper	2	4
Loader Operator	3	6
Blaster	2	4
Blaster Helper	2	4
Long Hole Driller	2	4
LH Driller Helper	2	4
Miner	2	4
Truck Operator	2	4
subtotal	19	38
Maintenance		
Mechanic	4	8
Mechanic Helper	4	8
Electrician	2	4
Electrician Helper	2	4
subtotal	12	24
Support		
Service	2	4
Backhoe Operator	1	2
subtotal	3	6
Administration		
Surveyor	1	1
Surveyor Helper	1	1
Security	2	4
Supervisor	1	2
Assistant	1	2
Resident	1	2
Administrator	1	1
Warehouse	1	2
Lantern	1	1
Driver	1	1
subtotal	11	17
Mine Total	45	85

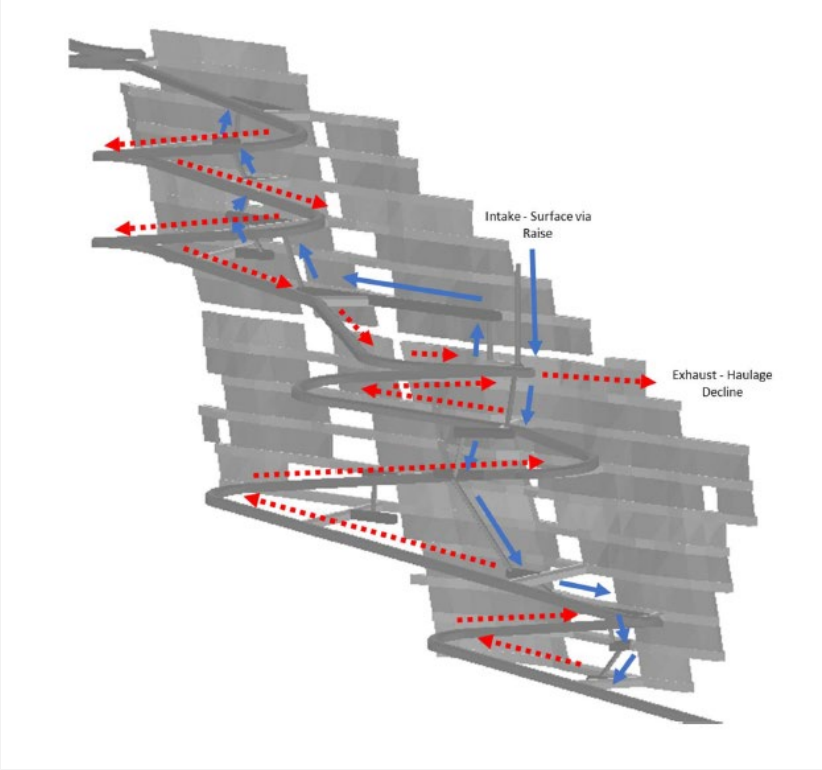
The Tahuehueto mine layout is based on sublevel stoping of different vein bodies which are located relatively close to the hillside topographic surface. Existing mining excavations have been constructed at various elevations to allow earlier sampling of these veins, and some have been incorporated into the mine access and ventilation system concepts for the PFS. The general ventilation system concept is the same for development of all of the vein systems and would rely on multiple intake and exhaust surface points controlled by fans in bulkheads. The establishment of individual vein ventilation circuits would follow the steps of:

- Develop primary access and haulage ramp and sublevel cross cuts;
- Construct a ventilation raise (3.0 m x 3.0 m) to surface off first cross cut at a nominal setback distance from the vein to direct intake air to the working faces;
- Install fans in bulkheads on the ventilation cross cut to draw air from the surface;
- Develop next raise on subsequent vent cross cuts and tie in with raise to pull fresh to the next level.
- Fresh air reports to the working areas and exhaust out primary ramp.

This configuration based on the current estimates are designed to supply 3540 m^3/min (125,000 cfm) to the working headings. Fan specification is 298 kW (400 hp), which is projected to be more than sufficient for the pressure drops estimated along the working faces, access drift, raises, and exhaust.

As mining develops in the stope areas, several raise fan installations would be working in parallel resulting in the total ventilation intake substantially exceeding the requirements of the operating equipment. Figure 16-12 illustrates the ventilation concept in the Perdido Vein. The ventilation raises would be cast up and down with the individual raise fans controlling the split of air flow, and serial flow mixing as the air moves towards the exhaust level. The series of ventilation raises also act as a secondary egress.

Figure 16-3 Perdido Vein Conceptual Ventilation System



Tahuehueto mine is scheduled to produce 28,000 tonnes per month with direct shipment to the process facility. Dry mining conditions are assumed based on the existing mine excavations, the proximity of the veins to the mountain side, and the elevation of the mining above the local river drainage. No extensive mine pumping system has been included in the design however a cost concession has been included in the economic analysis to purchase and operate pumps if required.

Underground electrical power is sourced via diesel generators located at the surface portals. The underground contractor has included diesel generator for the underground mining requirements and Altaley will supply additional generators as needed. Diesel consumption has been determined based on estimated electrical loads identified in Table 16-7. The power cable will be installed during the

excavation of the of the primary ramp to working areas. Mine Load Centers (MLC) and switchgear will be strategically placed next to the working areas. As mining progresses, the power MLC will be advanced corresponding to development and production. Voltage loss shall occur with long runs; therefore when applicable boreholes will be drilled and power cable installed to minimize run length.

Make up water would be supplied by a pipe network that connects to tanks located at the portal areas through boreholes and piping in the ramps.

Infrastructure utility costs of $27.12/meter of waste development has been estimated and applied in the economic analysis.

Table 16.7 Projected Underground and Mine Support Electrical Loads

	Quantity	Rated Power (HP)	Electric Load (kW)	Comment	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
SURFACE LOADS FOR MINING																
Ventilation - Primary																
Creston	1	400	298	kW Load based on Zone Production	298	298	298	298	298	298	298	-	-	-	-	-
Perdido	1	400	298	kW Load based on Zone Production	298	298	298	298	298	-	-	-	-	-	-	-
Cinco	1	500	373	kW Load based on Zone Production	-	-	-	-	373	373	373	373	373	373	280	-
Santiago	1	500	373	kW Load based on Zone Production	-	-	-	-	-	-	-	-	-	373	280	-
Rey	1	500	373	kW Load based on Zone Production	-	-	-	-	-	-	-	373	373	-	-	-
Compressor																
Creston	1	150	112	Electric Compressor (if Required, see comment)	112	112	112	112	112	112	112	-	-	-	-	-
Perdido	1	150	112	Electric Compressor (if Required, see comment)	112	112	112	112	112	-	-	-	-	-	-	-
Cinco	1	150	112	Electric Compressor (if Required, see comment)	-	-	-	-	112	112	112	112	112	112	84	-
Santiago	1	150	112	Electric Compressor (if Required, see comment)	-	-	-	-	-	-	-	-	-	112	84	-
Rey	1	150	112	Electric Compressor (if Required, see comment)	-	-	-	-	-	-	-	112	112	-	-	-
Hoist	1	500	373	Hoist Estimate	-	-	-	-	-	373	373	373	373	373	280	-
				Surface Subtotal kW	821	821	821	821	1386	1268	1268	1343	1343	1343	1007	-
				Monthly Surface Subtotal kW-hrs	610,526	610,526	610,526	610,526	971,292	943,541	943,541	999,043	999,043	999,043	749,282	-
Estimated Surface Loads for Mining	**90%**	**Duty Cycle**		**Surface Consumption (kW)**	739	739	739	739	1,175	1,141	1,141	1,209	1,209	1,209	906	-
				Monthly Surface Consumption (kW-hrs)	549,474	549,474	549,474	549,474	874,163	849,187	849,187	899,139	899,139	899,139	674,354	-
UNDERGROUND LOADS																
Dewatering System																
Creston	3	100	224	Three Pumping Stations 1-100HP pumps	224	224	224	224	224	224	224	-	-	-	-	-
Perdido	0	100	-	Natural Dewatering	-	-	-	-	-	-	-	-	-	-	-	-
Cinco	4	100	298	Four Pumping Stations 1-100HP pumps	-	-	-	-	298	298	298	298	298	298	224	-
Santiago	2	100	149	Two Pumping Stations 1-100HP pumps	-	-	-	-	-	-	-	-	-	149	112	-
Rey	2	100	149	Two Pumping Stations 1-100HP pumps	-	-	-	-	-	-	-	149	149	-	-	-
Mine Equipment															-	
Jumbo (2 per zone)	1	210	157	Atlas Copco M Series	313	313	313	313	470	313	313	313	313	313	235	-
Production Drills (2 per zone)	1	160	119	Atlas Copco Simba Series	239	239	239	239	358	239	239	239	239	239	179	-
Ventilation - Secondary Fans															-	
Creston	6	75	336	Level Fans (50k cfm/fan)	336	336	336	336	336	336	336	-	-	-	-	-
Perdido	4	75	224	Level Fans (50k cfm/fan)	224	224	224	224	224	-	-	-	-	-	-	-
Cinco	6	75	336	Level Fans (50k cfm/fan)	-	-	-	-	336	336	336	336	336	336	252	-
Santiago	2	75	112	Level Fans (50k cfm/fan)	-	-	-	-	-	-	-	-	-	112	84	-
Rey	2	75	112	Level Fans (50k cfm/fan)	-	-	-	-	-	-	-	112	112	-	-	-
Miscellaneous	2	500	746	Entire Mine Life	746	746	746	746	746	746	746	746	746	746	560	-
Shop (1 per Zone)	1	500	373	Surface or UG Mine	746	746	746	746	1,119	746	746	746	746	746	560	-
				Underground Subtotal kW	2,827	2,827	2,827	2,827	4,110	3,239	3,239	2,939	2,939	2,939	2,294	-
				Monthly Underground Subtotal kW-hrs	2,103,541	2,103,541	2,103,541	2,103,541	3,058,182	2,408,804	2,408,804	2,186,735	2,186,735	2,186,735	1,640,036	-
Estimated Underground Loads for Mining	**70%**	**Duty Cycle**		**Underground Consumption (kW)**	1,979	1979	1,979	1,979	2,877	2,268	2,268	2,057	2,057	2,057	1613	-
				Monthly Underground Subtotal kW-hrs	1,472,479	1,472,479	1,472,479	1,472,479	2,140,728	1,686,163	1,686,163	1,530,756	1,530,756	1,530,756	1,148,057	-
Tahuehueto Estimated Mine Loads - Surface and Underground			-	**Surface and Underground Consumption (kW)**	2,718	2,718	2,718	2,718	4,052	3,408	3,408	3,266	3,266	3,266	2,449	-
				Monthly Surface/Underground kW-hrs	2,021,952	2,021,952	2,021,952	2,021,952	3,014,890	2,535,350	2,535,350	2,429,895	2,429,895	2,429,895	1,822,421	-
Mega Watts					2.7	2.7	2.7	2.7	4.1	3.4	3.4	3.3	3.3	3.3	2.4	-

Mine operating costs have been provided by MGS Contratista Minera S.A De C.V. The MGS quote provided parameter specific unit costing for excavations; nominal drifting of 5m x 4m at +5 to +12% is $1,411.65/meter and nominal drifting of 5m x 4m at -5 to -12% is $1,428.51/meter. The equipment size and ventilation requirements indicated that a nominal drift of 4.5m x 4m is sufficient; therefore, a proportional analysis from the supplied quote was completed to determine the unit costing of $1,278/meter. The MGS estimate includes only labor, equipment, supervision and haulage up to 200 meters from the working face. Altaley shall provide diesel fuel, blasting agents, and ground support consumables in addition to hauling blasted rock beyond the 200 meters. A schedule and costing were developed identifying the quantity of trucks Altaley will require to maintain target haulage numbers. Table 16.8 identifies operating costs.

Table 16.8 Mine Operating Cost

		LOM	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Mine Operating Costs	$/Unit													
Lateral Development	1278.07	22,276,760	1,656,379	1,656,379	1,656,379	1,656,379	1,963,116	2,377,210	2,193,168	2,262,494	1,993,789	2,405,328	2,556,140	-
Sublevel Development	18.00	16,026,253	1,726,378	1,732,933	1,633,278	1,720,583	1,631,055	1,566,341	1,715,206	1,703,540	1,410,807	631,180	554,952	-
Long hole open stoping	14.00	37,872,548	1,973,832	3,427,102	3,500,532	3,436,202	3,502,170	3,549,854	3,440,164	3,514,462	3,664,458	4,238,920	3,624,852	-
Backfilling	2.00	1,180,882	127,206.80	127,689.80	120,346.80	126,779.80	120,183.00	115,414.60	126,383.60	125,524.00	103,954.20	46,508.00	40,891.20	-
Maintenance	0.38	1,346,443	87,968.97	127,485.75	127,485.75	127,485.75	127,485.75	127,485.75	127,485.75	129,266.38	127,485.75	127,485.75	109,321.31	-
Supplies														
Diesel	2.12	7,519,587	1,229,181	1,121,532	641,044	561,536	563,142	565,872	570,911	574,414	579,876	579,876	532,215	-
Power Generation	16.84	59,771,885	6,435,166	5,277,415	5,787,058	5,338,447	5,326,462	5,328,213	5,351,351	5,357,485	5,371,285	5,392,607	4,806,395	-
Explosives	4.11	14,599,204	916,417	1,205,734	1,209,090	1,206,150	1,309,590	1,447,088	1,389,769	1,453,421	1,508,681	1,569,362	1,383,903	-
Consumables	27.12/ton m	82,050,278	8,647,073	7,670,089	7,703,502	7,172,440	7,285,680	7,454,846	7,415,195	7,498,572	7,584,838	7,673,757	6,843,387	-

10) Processing and Recovery Operations

The flotation circuit is designed to process a peak of 300,000 tpy in 300 operating days, equivalent to 1000 tonnes per day and 45.8 tph through the grinding and flotation circuits. The Projects key drivers are presented in Table 17-1.

Table 17-1 Tahuehueto Project Key Drivers

Description	Units	Value
Operating Metrics		
Operating Days	dpy	300
Capacity	tpd	1000
Tonnes per Year	tpy	300,000
Total Ore Processed	kt	3,550
Head Grade		
Gold	gpt	2.58
Silver	gpt	50.5
Copper	%	0.3%
Lead	%	1.1%
Zinc	%	1.9%

The life of mine concentrate production metallurgic balance is indicated in Table 17-2. This metallurgic balance was prepared from the different metallurgic research discussed in Section 13 and is based on the production schedule detailed in Section 16.4 using the basic plant design criteria. The annual mill production schedule is presented in Table 17-3.

Table 17-2 Tahuehueto Average Metallurgical Recoveries

Product	kTonnes	Distribution % (Recoveries)				
		Au	Ag	Cu	Pb	Zn
Head	3,550	100%	100%	100%	100%	100%
Pb Concentrate	58	77.1%	62.8%	31.6%	85.5%	1.6%
Cu Concentrate	18	6.8%	10.3%	51.4%	0.6%	17.1%
Zn Concentrate	108	11.0%	11.7%	11.5%	6.1%	80.0%
Tails	3,079	5.4%	15.2%	5.4%	7.8%	1.3%

Based on metallurgical tests performed to date and the toll processing metallurgical campaigns provide sufficient data to reach a level of confidence that the flotation process chosen will work, flotation targets are attainable, and an economical concentrate can be produced. For this reason, Altalay decided to proceed with construction of the Tahuehueto processing facilities in 2021. At the time of writing, construction is substantially complete with commissioning anticipated to begin during the second quarter of 2022. The high-level design criteria is shown in Table 17-4.

Table 17-3 High Level Design Criteria

Item	Value
Peak Tonnes of dry ore processed by year	165,000
Days per year	300
Tonnes by day	1000
Crushing hours by day	12
Tonnes per hour crushing	45.8
Grinding and Filtering hours per day	24
Tonnes per hour grinding and filtering	41.7
Pb tonnes per month	263
Zn tonnes per month	510
Cu tonnes per month	69
Life of operation (years)	10.9

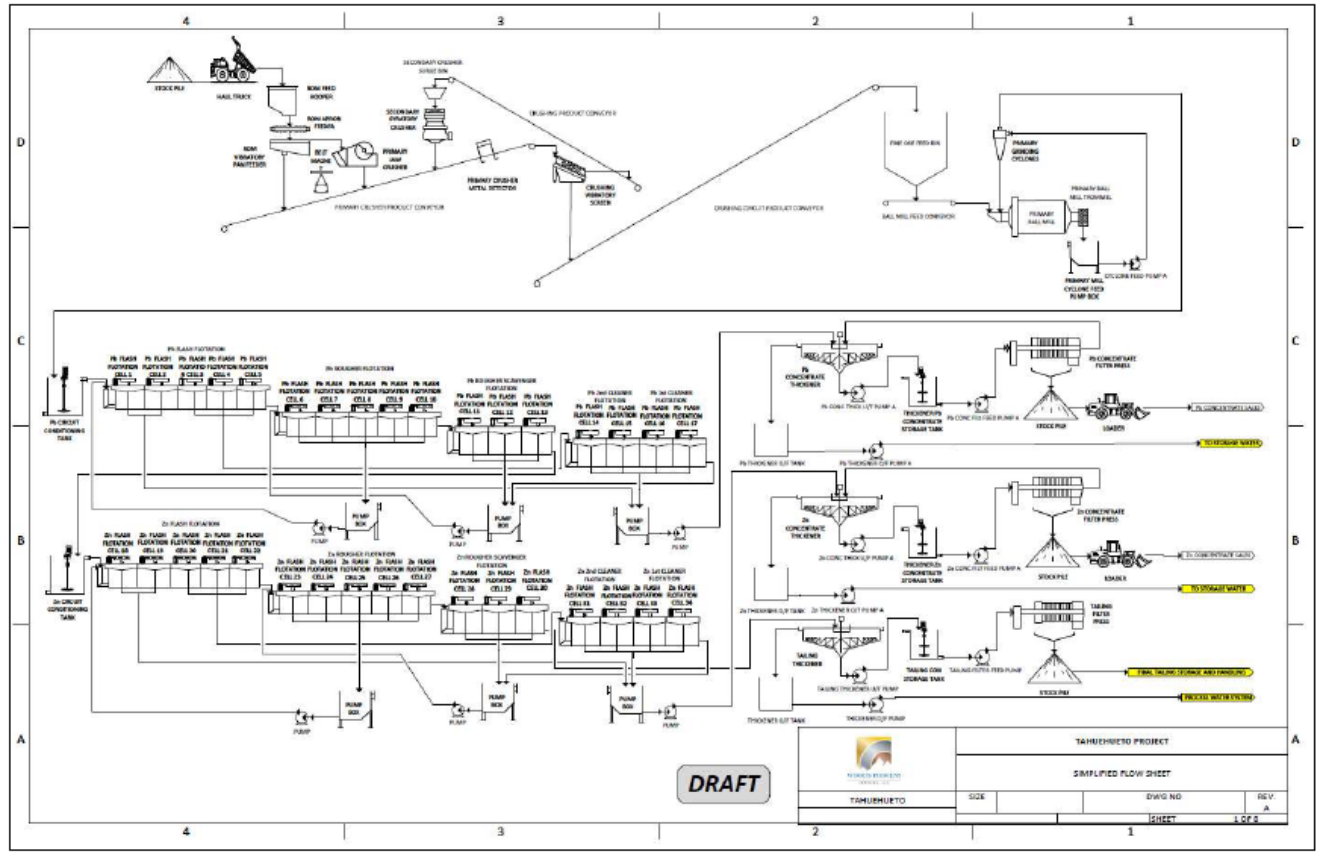
The processing flow sheet is a conventional crushing/milling/flotation/thickening/filtration process which is being built out in three phases as follows:

- Phase I: Single primary ball mill operating at 550 tpd producing Pb and Zn Concentrates. (This is the current flow sheet which includes enough Pb and Zn capacity to process 1000 tpd)
- Phase II: The addition of a second ball mill to increase throughput to 1000 tpd.
- Phase III: The addition of a Cu flotation circuit to process an independent copper concentrate. The Phase I process flow sheet is shown in Figure 17-1.
- One coarse ore bin with capacity to receive 20-ton trucks and total storage capacity of 80 tons and a mesh to control the rock size of 50 x 80 cm
- One Apron feeder with capacity to convey 20 to 60 tonnes per hour of ore.
- One Primary Jaw crusher 76 cm x 90 cm to process 20 to 60 tonnes per hour. (Note: Jaw crusher is sized for 1 ktpd production rate)
- Secondary cone crusher to produce the mill feed at a minus 10 mm particle size.
- One vibratory screen operating in closed circuit with the secondary cone crusher producing a mill feed product at minus 10 mm
- Fine ore bin with capacity of 550 tons of fine ore
- A single 2.40 m x 2.40 m ball mill, with 300 HP for mill the ore to a P80 or 90 microns at a rate of 21tonnes per hour.
- Cyclone circuit operating in closed circuit with the ball mill to produce flotation feed product at - 90 microns (80% - 200 mesh).
- One conditioner tank for Pb flotation.

- One bank of Primary or Flash Pb flotation cells. One back of Pb Rougher Flotation Cells.
- One back of 2nd Pb Rougher Flotation Cells (Rougher-Scavenger) One bank of Pb First Cleaner Flotation Cells.
- One bank fo Pb 2nd Cleaner flotation cells. One conditioner tank for Zn flotation.
- One bank of Primary or Flash Zn flotation cells.
- One back of Zn Rougher Flotation Cells.
- One back of 2nd Zn Rougher Flotation Cells (Rougher-Scavenger) One bank of Zn First Cleaner Flotation Cells.
- One bank for Zn 2nd Cleaner flotation cells. One thickener for Pb concentrate.
- One thickener for Zn concentrate. One thickener for tailings.
- One filtration circuit for Pb concentrate. One filtration circuit Zn concentrate.
- One filtration circuit for tailings.

All the concentrates will be shipped in bulk and trucked in 30 tons trucks. The Pb concentrate will be sent to the port of Manzanillo, Colima and the Zn concentrates to Matehuala, San Luis Potosí.

Figure 17-1 Plant Flowsheet Section



This crushing circuit is scheduled to operate 12 hours per day and will receive ore from the mine in 20 t capacity dump trucks discharged to the coarse ore feed bin with a capacity of 80 t. The feed bin will have a 46 cm grizzly. The oversize ore material will be reduced with the use of pneumatic rock breaker.

The ore from the coarse ore bin, reports to the primary jaw crusher by an apron feeder, and then reports to a vibratory grizzly pan feeder. Pan feeder undersize reports to the primary crusher product conveyor (CV-01). Pan feeder oversize reports to the Primary Jaw Crusher (JC-01). The Primary Jaw Crusher product reports to the Primary Crusher Conveyor.

The Primary Crusher Conveyor discharges to the Secondary Crusher Vibratory Screen (VS-01), The Vibratory Screen undersize reports to the Final Product Conveyor (CV-02). The Vibratory Screen Oversize reports to the Secondary Crusher Feed Conveyor (CV-03) which in turn discharges to the Secondary Crusher Feed Surge Bin (SB-01). Material from the Surge Bin reports to the Secondary Cone Crusher with the Cone Crusher product reporting to the Primary Crusher Product Conveyor (CV-01) where it is added to the product from the Primary Jaw Crusher. The mixed ore is subsequently processed through the Secondary Vibratory Screen with the screen undersize reporting to the Final Product Conveyor (CV-02). The final Product Conveyor reports to the Fine Ore Bin (FB-01)

Fine ore from the Fine Ore Bin discharges to the Ball Mill Feed Conveyor (CV-04) and feed into the Primary Ball Mill (BM-01). Water is mixed with the ore to maintain a slurry density of 70 percent solids (wt:wt) in the mill. The Ball Mill discharges to Ball Mill Discharge Trommel when the oversize is returned to the mill and undersize passes to the Cyclone Pump Box (PB-01). Water is added to the pumpbox to dilute the slurry to 30 percent solids (wt:wt) before being pumped to the Cyclones (CY-01) via one of the two Cyclone Feed Pumps (PP0-01A/B). Cyclone underflow reports back to the ball mill feed with the cyclone overflow reporting to the Pb Flotation Conditioning Tank (TK-01).

The ore slurry is conditioned with reagents in the Pb Flotation Conditioning Tank (TK-01), where the ore is conditioned with reagents as required before reporting to the Pb flotation cells. Conditioned slurry reports to the first set of flotation cells known as the Primary PB Roughers Flotations Cells. Concentrate from the Primary Pb Roughers reports to the final concentrate pumpbox (PB-04) or the Pb 1st/2nd Cleaner Flotation Cells depending on grade. Primary Pb Flotation Tailings report to the 1st Pb Rougher Flotation Cells. Concentrate from the 1st Pb Rougher Flotation Cells reports back to the Primary Pb Floatation Cells. Tailings from the 1st Pb Rougher Flotation Cells reports to the 2nd Pb Rougher Flotation Cells. Concentrate from the 2nd Pb Rougher Flotation Cells report to the 1st Pb Rougher Pump Box with the 2nd Pb rougher Flotation Cell tailings reporting to the Zn Flotation Conditioning Tank.

Concentrates from the 1st/2nd Pb Cleaner Flotation Cells report to the final Pb Concentrate Pump Box (PB-

04) Final Pb Concentrate is pumped from the Final Pb Concentrate Pump Box (PB-04) via one of two Pb Concentrate Thickener Feed Pumps (PP-04A/B).

The Zn flotation tailings conditioned with reagents in the Zn Flotation Conditioning Tank (TK-02 before reporting to the Zn flotation cells. Conditioned slurry reports to the first set of flotation cells known as the Primary Zn Roughers Flotations Cells. Concentrate from the Primary Zn Roughers reports to the final concentrate pump box (PB-07) or the Zn 1st/2nd Cleaner Flotation Cells depending on grade. Primary Zn Flotation Tailings report to the 1st Zn Rougher Flotation Cells. Concentrate from the 1st Zn Rougher Flotation Cells reports back to the Primary Zn Floatation Cells. Tailings from the 1st Zn Rougher Flotation Cells reports to the 2nd Zn Rougher Flotation Cells. Concentrate from the 2nd Zn Rougher Flotation Cells report to the 1st Zn Rougher Pump Box with the 2nd Zn rougher Flotation Cell tailings reporting to the Final Tailings Thickener.

Concentrates from the 1st/2nd Zn Cleaner Flotation Cells report to the final Zn Concentrate Pump Box (ZN-

04) Final Zn Concentrate is pumped from the Final Zn Concentrate Pump Box (PB-07) via one of two Zn Concentrate Thickener Feed Pumps (PP-07A/B)

A summary of the Reagents type, application and amount used in the flotation process are indicated in Table 17-5.

Table 17-4 Reagents Type and Consumption

Reagent	Application	Quantity (g/t)
CaO	(pH control)	2,000
$ZnSO_4$	(Zn depressant)	1,100
AF-242	(Promoter - Collector Pb - Cu)	70
AF-404	(Promoter- Collector Pb – Cu)	70
Mibc-70	(Frother)	50
$CuSO_4$	(Zn activator)	1,000
AF-211	(Zn promotor)	80
X-343	(Zn collector)	30.
Xanthate	(Collector)	30

Lead and Zinc concentrates are collected and transferred to the respective concentrate thickeners, namely TH-01 and TH-02 respectively. Thickener underflow density is expected range between 50% to 60% solids (wt:wt). Thickener overflow, primarily process water, will be recycled back into the circuit.

Tailings storage will be by dry stack tailings method.

The plant is going to operate two; 12 hours shifts each day, on the basis of 20 working days by 6 off. Table 17-5 indicates the 58 personnel required to operate and manage the processing plant at Tahuehueto.

Process manpower includes personnel involved in direct supervision and operation of the mill and processing operation. This includes administration, operating labor, and direct maintenance. The grouping and the numbers of personnel are summarized in Table 17-8. Maintenance requirements were estimated based on ratios of maintenance manpower to operating manpower.

Operating hours were determined by estimated equipment productivities. Equipment operating hours in a given 12 hour operating shift were based on the assumed utilization. Operating man hours were then factored to account for the 12 hour paid shift, no reassignment to other tasks was assumed. The operation was scheduled for 300 operating days per year on a 6 day work week.

For costing, the man hours were rounded up to the totals in each group. Altaley supplied labor rate assumptions were used for labor cost estimation. For the economic analysis of the project, general site administration has been added to the processing plants manpower estimates. These general and administration (G&A) personal requirements are presented in Table 17-6.

Table 17-5 Process Plant Manpower by Group and Function

Assigned Group	Function	Number of Personnel
Mill Administration	Mill Manager	1
	Mill Superintendent	1
	Metallurgist	2
	Mill Operations Foreman	4
	Maintenance Superintendent	1
	Maintenance Foreman	3
	Plant Electrical Foreman	1
	Metallurgical Accountant	2
	Mill Administrative Assistant	1
	Total Mill Admin	**16**
Plant Operators	Crushing Control Room	4
	Crush and Convey	8
	Grinding and Flotation	4
	Regrind/Cleaner Float	4
	Thickener and Filtration	4
	Sampler	4
	Packing/Shipping/Reagents	2
	Tailings/Water Treatment	2
	Total Plant Operators	**32**
Mill Maintenance	Crusher	8
	Grinding and Flotation	4
	Regrind/Cleaner/Filter/ Packing	8
	Electrician	4
	Interment Technician	4
	Total Mill Maintenance	**10**
Total Mill Personnel		**58**

Table 17-6 Project General and Administration Manpower

Assigned Group	Function	Number of Personnel
General Administration	General Manager	1
	Administrative Assistant	1
	Controller	1
	Accountant	2
	Human Resources Manager	1
	Human Resources Generalist	1
	Regional Supply Manager	1
	Contracts Manager	1
	Supply Superintendent	1
	Warehouse Supervisor	1
	Warehouse Clerks	4
	Buyer/Coordinator	2
	Plant Engineer	1
	Environmental Engineer	1
	Industrial Hygienist	1
	Health and Safety Technician	2
Total G&A Personnel		**22**

The capital cost of the plant is made up of the plant equipment, plant and service buildings, and plant construction. The total capital cost required is USD $14,350,000 without contingency and is indicated in detail in Table 17-7.

Table 17-7 Plant Equipment and Buildings Capital Cost

Costing Area	Cost ($k)
Direct Costs	
Crushing, Conveying, and Storage	2,840
Grinding	1,600
Flotation	1,520
Filtration, Packing, and Shipping	1,180
Fresh and Process Water	1,350
Ancillary Facilitates	1,000
Tailings Storage Facility	300
Main Plant Substation	940
General Site Earthwork and Grading	300
Indirect Costs	
Mobilization	100
Freight	250
Operations Overhead	120
Construction Overhead	620
Engineering, Procurement, and Construction Management	1,860
Vendor Support, Spares	250
Capital Spares, First Fills	120
Total Processing Capital Costs	**14,350**

The operating costs are based on first principal engineering cost buildups for processing operations as shown in Table 17-8. These costs were derived from1 materials, power, and labor for each unit operation. For costing, the mine maintenance man hours were incorporated with mill labor along with the power requirements for the underground mine. This was done to reflect the power distribution of the Project site and the management structure, respectively. Operating consumables and maintenance consumables were based on costing services.

Table 17-8 Plant Operating Cost

Costing Area	LOM Cost ($k)	Unit Cost ($/t)
Salaried Labor	10,264	3.14
Hourly Labor	37,552	11.50
Crushing and Grinding	23,795	7.29
Flotation	15,607	4.78
Filtration, Packing, and Shipping	3,447	1.06
Tailings Storage Facility	5,056	1.55
Mine Power Requirements	4,808	1.47
Total Processing Operating Costs	**100,529**	**30.80**

11) Infrastructure, Permitting and Compliance Activities

Site infrastructure and ancillary facilities will comprise of the following components complying with all municipal, state and federal government regulations, and adhering to excellent engineering and construction practices.

Access to the Tahuehueto project by land from Tepehuanes is by paved road for approximately 40 km to Ciniega de Los Frailes and then an additional 80 km of unpaved road and the last 40 km is a dirt road that needs new design in some areas to accommodate large trucks. The average time from Tepehuanes to the property is 5 hours.

According to the municipality authorities there is an approved budget for paving another 10 km of the Tepehuanes - Tahuehueto road, and there is the possibility that the State Government and the communication minister of the Federal Government, can further invest in the road to the property.

For the construction stage of the project, it will be necessary to invest in improving some curves of the roads, in order to give access to large trucks that will supply equipment and materials as gas, diesel and gasoline and also for the transport of the future concentrate production to the customers.

There are 2 gravel airstrip sites for fixed-wing aircraft, El Purgatorio and Mesa de Toros, but both require renewal of the permit for use of the land. Mesa de Toros is also in need of repair to the access road.

The Company is working on renewing the permit for El Purgatorio, which will be used for the Community and Altaley personnel, to have the ability to receive small planes like a Cessna 206 for 6 passengers.

Access can be from either Culiacan or Durango. El Purgatorio airstrip is located 20 km by road north of Tahuehueto and Mesa de Toros is located 5 km by road west of Tahuehueto. The flight from Durango is 45 minutes and from Culiacan 30 minutes. These airstrips will be maintained by Altaley.

The electricity required in the Tahuehueto project for a 1,000 tpd operation is divided into two 12 hours shifts. The first or daily shift requires power for the full operation of the mine. During the second shift the water pumping and crushing section in the plant as well as the mine are not operating, reducing the demand.

Power lines from CFE (Comision Federal de Electricidad) are not available to provide electricity in Tahuehueto, and the closer lines in Topia 25 km south of Tahuehueto have limited capacity. The investment needed to build a power line to the project at this stage is not an economic option. The options evaluated to supply the 2,500 kW of electricity required for the project has indicated the use of gas engine generators as the method of power generation for this study. The gas generators option is more expensive than the diesel generators in terms of capital cost, but in the short term this difference is compensated for by the fuel saving and in the long term is a better option than diesel engine generators.

Gas engine generators are a common option when a gas pipeline is available and the cost for gas is less than diesel. Gas has a lower price in relation to the diesel and is more efficient. There are no gas pipelines available in Tahuehueto or nearby areas, therefore, the gas would be delivered to the project by tanker truck from Durango.

This option considers two Caterpillar 1,827 kW gas generators, switchgear and synchrony system at 13.8 kV and transformation to 0.48 kV.

There is an option that combines the use of solar panels with the gas generators. During the daytime 30% of the power required can be supplied by solar panels and during nighttime, the power is supplied by the fuel generators.

Solar panels can only supply power during the day and only for a maximum of 30% of the total demand and also require a large piece of land for their installation. The investment on this option is high in terms of units of power generated, but the fuel consumption, operating cost, and pollution are reduced. This option must be considered for long term operation.

The power in any option will be generated at 4,160 volts and transported by power lines to the operating area. In each are by the use of electric substations will be reduced to 440, 220 and 110 volts.

The larger electric engines of the mine, mill and water pumps equipment will use 440 volts, some maintenance and service motors will use 220 volts and general services for housing and camp will be at 110 volts.

During the exploration stage, Altaley was supplying water for drilling and services from the Vueltas River, that is located at the bottom of the canyon at an elevation of 660 m, the plant at 1300 m and the main fresh water tank at 1700 m. The estimated water demand for the mill will be approximately 175 m3/day.

Water for mining and milling operations will be supplied from an underground pumping station within underground mine workings at Tres de Mayo, near Las Vueltas River at approximate coordinates; Latitude 25°24'5.24"N and Longitude 106°36'47.01"W, elevation 680m. Pumped first to the water storage tank 1 at approximate coordinates of 1425m elevation, then gravity fed to two water storage tanks at the mill site.

Process water will be recycled within the milling circuit with an estimate of approximately 70% of mill process water being recovered and reused in ongoing milling operations.

Designed and constructed to provide sufficient working space for management, engineering, mine supervisors, geology, and all the operations support staff. This facility will be built in the called Industrial area between the mill and tailings dam where there is enough space for this purpose.

This 300 m^2 surface area building will have working space for 8 private offices and a general working area for 18 persons, along with 3 meeting rooms for 20, 12 and 6 persons that will be used for operation meetings and capacitation. The private offices will be for the General Manager and for the head people of each area of the mine.

A maintenance warehouse facility is provided to service mobile equipment and for storage of equipment spares. The maintenance area includes an overhead crane and is fully equipped including lube racks, washer system, tools control, etc. This maintenance warehouse will include areas for electric and combustion engines and also an office for the head of maintenance.

A general warehouse will be built for the storage and control of all materials and spare parts required for the total operation of the Mine. Due to the remote location of the property, it will be necessarily having this facility permanently stock the materials and spare parts for all the equipment and installation.

This warehouse will have a 500 m^2 surface and will include an office for the warehouse personnel. This area will also include the plant, metallurgic lab, hospital and truck wash.

An open area with a slab on grade has been provided to accommodate butane gas and built following all regulatory requirements. It must be installed near the actual natural gas & diesel storage and from this place, will be conducted to the power plant facility and other areas by pipe. The installation will have 4 gas tanks for storage 30 m^3 each one for a total capacity of 120 m^3.

A chain-link fence with gate and concrete posts, this open storage area is provided for equipment and materials that can be stored outside. It will be necessary to cover 8 weeks of supplies plus all the "C" materials, due to the remoteness of the mine. This open area will be ready for the construction stage in order to have control of the equipment and materials that will be installed on the Mine Unit.

Trucks and equipment will be washed in an open area near the maintenance building, with the facilities required for a thorough job. It will include a concrete slab and installations to separate water from fuel and lube oils.

A separate mine dry, plant and maintenance facility will be provided, that will include showers and lockers to be used by mine, plant and maintenance personnel. The facilities will also have a water treatment system for recycling.

In the main area there isn't specialized manpower, local people of the community will be trained, but some professionals and specialist persons will come from other areas and in the mine zone there are no facilities for stay. Accommodations will be needed for the estimated 55 professionals and specialists required for the full mine as well as the suppliers and contractors that will be visiting and doing temporary work for the operation.

Three accommodation areas will be built for these personnel. The first one will have accommodations for 25 persons for the senior management of the mine, the second camp will have accommodations for another 30 persons from specialized areas of the operation and the third camp, will be the actual accommodations that will be redesigned and will operate like a hotel for contractors and suppliers.

The 3 camp areas will have cooking and dining facilities. The community personnel will supply his lunch. The restaurants will have a complete kitchen and eating and entertainment areas. Breakfast will be served from 6 to 9 am, lunch from 12:30 to 3:30 pm and dinner from 6 to 9 pm. Staff will work in 2 shifts with 2 cooks, and 4 cooks assistants and will serve food to an average of 55 persons. The camps will also have a laundry rooms. Figure 20-13 shows the camp areas and the Figure 20-14 the existing camp that will be redesigned to accommodate visitors.

Facilities for the assay laboratory will include sample preparation with drying, crushing and pulverizing. An AA spectrometer for multi metal analysis, fire assaying for gold-silver and complete equipment for metallurgical testing is considered. Staff will include 5 people. This lab will have the capacity to assay 150 samples per day from exploration and mine control, from the plant for operation control, from concentrates shipments, water, tailings, etc.

Diesel fuel for the equipment will be transported to the mine from PEMEX distributors and stored in 2 existing tanks with 20,000 l of capacity each.

Gasoline will be stored in a 10,000 l tank near the warehouse for use in some gasoline vehicles. Most of the vehicles, pickups, trucks and equipment will use diesel engines.

The natural gas consumption for the power plant generators will be 250,000 l per month and around 10,000 more for the camp and lab. The gas storage will be in 4 tanks with 30,000 l capacity each, for a total storage capacity of 120,000 l.

All the fuel storage tanks and fuel transport equipment will meet existing regulations and safety requirements.

A fiber optic network will be installed on site with hot-spots that will handle data, radio, RFID for personnel and equipment. Such system will include underground workings with monitoring ventilation gases etc. thus providing real time control. Everything linked to a satellite communication facility linked to corporate offices.

All the offices, camp and inclusive surrounding areas to the mine will have access to internet and cellular phone services. This will be a contribution of the company to the community.

The waste water will be treated in a plant and will be used as process water for significant savings in fresh water use.

The solid waste, like oil and maintenance shop discards, will be treated following environmental regulation. Some of this material will be shipped out of the property by a licensed corporation. Other hazardous wastes like batteries will be handled by a third party certified by federal authorities.

The waste produced by the camp and living activities, will be stored in the existing storage facility that meets all existing regulations.

Mill construction is nearly 95% complete as of the effective date of the report. The concentrates produced in the Tahuehueto mine will be sold to Trafigura Mexico under 10 year offtake agreement where metals a sold at spot prices at time of delivery under industry standard terms and CIBC Benchmark future estimated metal pricing is used to estimate revenues for the operation.

The Tahuehueto Project will consist of the exploitation of the underground mineral deposits. All the exploration work completed by Altaley has been carefully constructed and adequate closure and restoration measures, as well as erosion control measures, were observed in the exploration areas.

There have been past mining activities at the Project site including the 50 tpd flotation mill operation, tailings dam for this operation, offices, houses, and more than 5000 m in underground exploration developments and exploitation works. Therefore, Tahuehueto Project is an impacted terrain and a preventive analysis and MIA the (Environmental Impact Study) has be presented to the environmental authorities and approved. All required permits to allow the mining operations to commence are in place. The following Figure 20-1 shows a list of approved permits in place at Tahuehueto.

The mineralized material from the deposit will be processed at a central process plant. With the development of this project, the main permanent impacts will be the mineral processing facility, the surface portals, the waste rock facility and the tailing disposal facility. The underground cut and fill

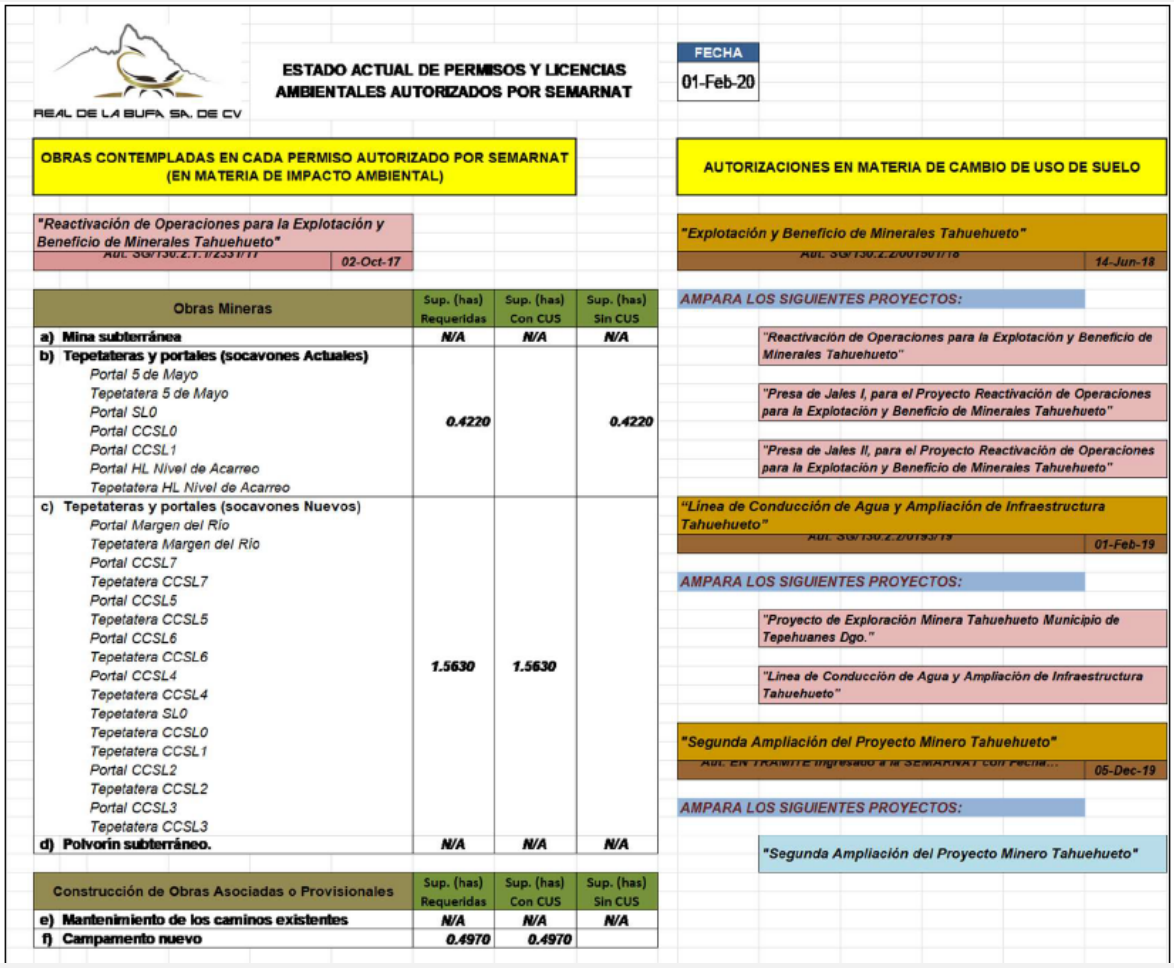
mining method will eliminate the need for permanent surface waste rock facilities as all waste is schedules to be used in the mine excavation as backfill. The waste rock will need temporary stockpiles near portals until it is needed to backfill the stoped-out production areas.

The project site is not located within or near any natural protected area or fragile environment. The environmental controls that will be applied during the development and abandonment of the project will considerably diminish the level of risk and impacts to the natural environment.

Tailing characterization test will be performed to define the environmental protection measures during the construction, operation, maintenance and abandonment of the tailing facility.

The Project is subject mainly to regulation from the Federal level, through its different stages of development, especially those related to environmental permits for construction and operation, which involves the environmental impact, environmental risk and land use change studies and resolutions. Air emissions, water use, water discharge and hazardous residues handling are also regulated by Federal laws.

Figure 20-1 Tahuehueto Environmental Permits



REAL DE LA BUFA SA. DE CV

ESTADO ACTUAL DE PERMISOS Y LICENCIAS AMBIENTALES AUTORIZADOS POR SEMARNAT

FECHA: 01-Feb-20

OBRAS CONTEMPLADAS EN CADA PERMISO AUTORIZADO POR SEMARNAT (EN MATERIA DE IMPACTO AMBIENTAL)

"Reactivación de Operaciones para la Explotación y Beneficio de Minerales Tahuehueto"
Aut. SG/130.2.1.1/2331/11 — 02-Oct-17

Obras Mineras	Sup. (has) Requeridas	Sup. (has) Con CUS	Sup. (has) Sin CUS
a) Mina subterránea	N/A	N/A	N/A
b) Tepetateras y portales (socavones Actuales)			
Portal 5 de Mayo			
Tepetatera 5 de Mayo			
Portal SL0	0.4220		0.4220
Portal CCSL0			
Portal CCSL1			
Portal HL Nivel de Acarreo			
Tepetatera HL Nivel de Acarreo			
c) Tepetateras y portales (socavones Nuevos)			
Portal Margen del Río			
Tepetatera Margen del Río			
Portal CCSL7			
Tepetatera CCSL7			
Portal CCSL5			
Tepetatera CCSL5			
Portal CCSL6			
Tepetatera CCSL6	1.5630	1.5630	
Portal CCSL4			
Tepetatera CCSL4			
Tepetatera SL0			
Tepetatera CCSL0			
Tepetatera CCSL1			
Portal CCSL2			
Tepetatera CCSL2			
Portal CCSL3			
Tepetatera CCSL3			
d) Polvorín subterráneo.	N/A	N/A	N/A

Construcción de Obras Asociadas o Provisionales	Sup. (has) Requeridas	Sup. (has) Con CUS	Sup. (has) Sin CUS
e) Mantenimiento de los caminos existentes	N/A	N/A	N/A
f) Campamento nuevo	0.4970	0.4970	

AUTORIZACIONES EN MATERIA DE CAMBIO DE USO DE SUELO

"Explotación y Beneficio de Minerales Tahuehueto"
Aut. SG/130.2.2/0150/18 — 14-Jun-18

AMPARA LOS SIGUIENTES PROYECTOS:

- *"Reactivación de Operaciones para la Explotación y Beneficio de Minerales Tahuehueto"*
- *"Presa de Jales I, para el Proyecto Reactivación de Operaciones para la Explotación y Beneficio de Minerales Tahuehueto"*
- *"Presa de Jales II, para el Proyecto Reactivación de Operaciones para la Explotación y Beneficio de Minerales Tahuehueto"*

"Línea de Conducción de Agua y Ampliación de Infraestructura Tahuehueto"
Aut. SG/130.2.2/0193/19 — 01-Feb-19

AMPARA LOS SIGUIENTES PROYECTOS:

- *"Proyecto de Exploración Minera Tahuehueto Municipio de Tepehuanes Dgo."*
- *"Línea de Conducción de Agua y Ampliación de Infraestructura Tahuehueto"*

"Segunda Ampliación del Proyecto Minero Tahuehueto"
Aut. EN TRAMITE Ingresado a la SEMARNAT con Fecha... — 05-Dec-19

AMPARA LOS SIGUIENTES PROYECTOS:

- *"Segunda Ampliación del Proyecto Minero Tahuehueto"*

Rehabilitación de Obras		Sup. (has) Requeridas	Sup. (has) Con CUS	Sup. (has) Sin CUS
g) Planta de beneficio		0.1630		0.1630
h) Laboratorio		0.0230		0.0230
i) Unidad médica		0.0230		0.0230
j) Campamento Oficinas Baños Dormitorios Comedor Almacenes		0.0750		0.0750
k) Polvorines		0.0860		0.0860
l) Tanques de almacenamiento		0.0200		0.0200
	TOTALES	2.8710	2.0600	0.8110

"Presa de Jales I, para el Proyecto Reactivación de Operaciones para la Explotación y Beneficio de Minerales Tahuehueto"	
Aut. SG/130.2.1.1/001869/17	15-Aug-17

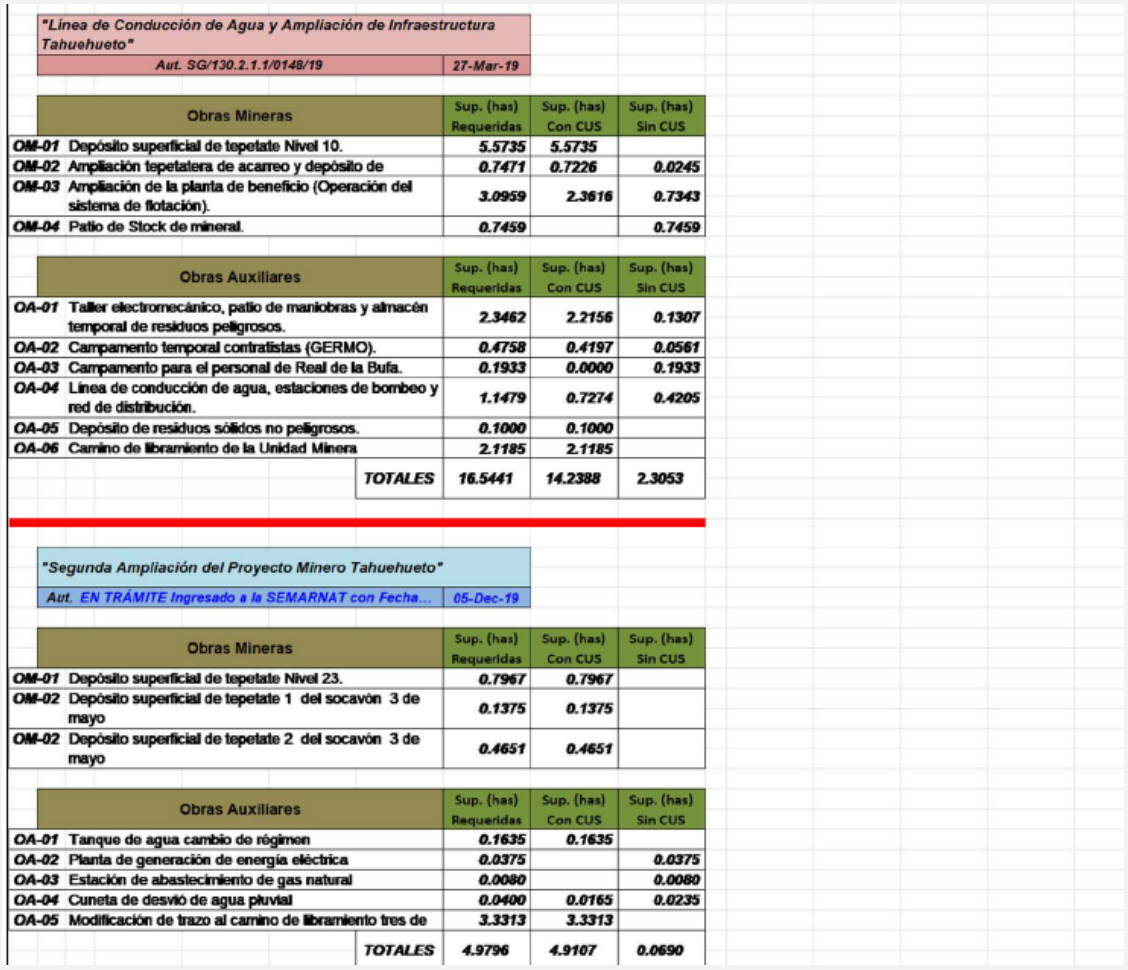
Obras Asociadas		Sup. (has) Requeridas	Sup. (has) Con CUS	Sup. (has) Sin CUS
a) Presa de Jales (I)		3.7800	2.6730	1.1090
	TOTALES	3.7800	2.6730	1.1090

"Presa de Jales II, para el Proyecto Reactivación de Operaciones para la Explotación y Beneficio de Minerales Tahuehueto"	
Aut. SG/130.2.1.1/001870/17	14-Aug-17

Obras Asociadas		Sup. (has) Requeridas	Sup. (has) Con CUS	Sup. (has) Sin CUS
a) Presa de Jales (II)		9.3870	9.3870	
	TOTALES	9.3870	9.3870	

"Proyecto de Exploración Minera Tahuehueto Municipio de Tepehuanes Dgo."	
Aut. SG/130.2.1.1/2642/18	12-Oct-18

Obras de Exploración		Sup. (has) Requeridas	Sup. (has) Con CUS	Sup. (has) Sin CUS
a) Obras Exploración				
Planillas de Barrenación (6)		0.0900	0.0900	
Socavón		0.0006	0.0006	
Patio de Maniobras		0.0298	0.0298	
Caminos de Acceso (longitud total)		2.0069	2.0069	
	TOTALES	2.1273	2.1273	



"Línea de Conducción de Agua y Ampliación de Infraestructura Tahuehueto"

Aut. SG/130.2.1.1/0148/19 — 27-Mar-19

Obras Mineras		Sup. (has) Requeridas	Sup. (has) Con CUS	Sup. (has) Sin CUS
OM-01	Depósito superficial de tepetate Nivel 10.	5.5735	5.5735	
OM-02	Ampliación tepetatera de acarreo y depósito de	0.7471	0.7226	0.0245
OM-03	Ampliación de la planta de beneficio (Operación del sistema de flotación).	3.0959	2.3616	0.7343
OM-04	Patio de Stock de mineral.	0.7459		0.7459

Obras Auxiliares		Sup. (has) Requeridas	Sup. (has) Con CUS	Sup. (has) Sin CUS
OA-01	Taller electromecánico, patio de maniobras y almacén temporal de residuos peligrosos.	2.3462	2.2156	0.1307
OA-02	Campamento temporal contratistas (GERMO).	0.4758	0.4197	0.0561
OA-03	Campamento para el personal de Real de la Bufa.	0.1933	0.0000	0.1933
OA-04	Línea de conducción de agua, estaciones de bombeo y red de distribución.	1.1479	0.7274	0.4205
OA-05	Depósito de residuos sólidos no peligrosos.	0.1000	0.1000	
OA-06	Camino de libramiento de la Unidad Minera	2.1185	2.1185	
	TOTALES	16.5441	14.2388	2.3053

"Segunda Ampliación del Proyecto Minero Tahuehueto"

Aut. EN TRÁMITE Ingresado a la SEMARNAT con Fecha... — 05-Dec-19

Obras Mineras		Sup. (has) Requeridas	Sup. (has) Con CUS	Sup. (has) Sin CUS
OM-01	Depósito superficial de tepetate Nivel 23.	0.7967	0.7967	
OM-02	Depósito superficial de tepetate 1 del socavón 3 de mayo	0.1375	0.1375	
OM-02	Depósito superficial de tepetate 2 del socavón 3 de mayo	0.4651	0.4651	

Obras Auxiliares		Sup. (has) Requeridas	Sup. (has) Con CUS	Sup. (has) Sin CUS
OA-01	Tanque de agua cambio de régimen	0.1635	0.1635	
OA-02	Planta de generación de energía eléctrica	0.0375		0.0375
OA-03	Estación de abastecimiento de gas natural	0.0080		0.0080
OA-04	Cuneta de desvió de agua pluvial	0.0400	0.0165	0.0235
OA-05	Modificación de trazo al camino de libramiento tres de	3.3313	3.3313	
	TOTALES	4.9796	4.9107	0.0690

Mine permitting in Mexico is primarily administered by the federal government body, the Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT). Following from objectives outlined in the Ley General del Equilibrio Ecológico y la Protección al Ambiente, an Environmental Impact Assessment called a Manifestación de Impacto Ambiental (MIA) has been granted for construction and operation. Additional regulatory triggers may require that the MIA for the infrastructure includes a Risk Assessment. Additionally, as a part of the land tenure process, a Change in Land Use Application called a Cambio de Uso de Suelo (CUS), supported by a Technical Supporting Study called an Estudio Técnico Justificativo has been granted for all areas of land disturbance.

To date a study has been carried out by Knight Piésold titled Preliminary Project Development Options and Baseline Data Collection, March 2005. The study considered various options for storage of tailings at the project site. Additionally, there were some recommendations for follow up work. As part of the recommendations, an automated weather station has been installed at site to collect relevant weather data.

The metallurgical studies included limited studies for acid rock drainage. The samples were acid generating but had a neutralizing potential as well.

A baseline database has been collected and will be continued and expanded upon for, climate, soils, surface hydrology, flora, fauna, and socio-economic factors. An ongoing environmental monitoring program has also been initiated during initial development and will continue throughout mining and milling operations.

More detailed studies including acid base accounting (ABA) and humidity cell testing to determine if the overall samples are acid generating will be needed to determine future storage requirements for the tailings and waste rock.

As part of ongoing QC/QA of the climatological data collected at site by the automated weather station, readings are be taken for temperature, humidity and rainfall. Manual readings are simple and inexpensive to collect yet give warning of any component failure in an automated weather station. Manual readings can be taken with a simple thermometer, hygrometer and clear view rain gauge.

In addition to the data currently collected, it is recommended that a fauna sighting register begin at the site. The register would consist of a log book and list all animals viewed in the field listing species, location, date and time, observer, weather conditions, period of observation and comments. This can provide good background for the baseline fauna study to be completed.

No other environmental issues have been identified that would alter or compromise Project planning. The project is located outside of any protected natural areas or some other conservation program at the municipal, state or federal level.

The Tahuehueto Project will comply with all the environmental regulations and standards in place in Mexico as well as applicable international criteria. The mining works and supporting facilities will be designed, constructed and operated in such a way as to minimize the impact to the natural environment. An environmental management plan, an emergency response plan, a residues management plan and a closure and reclamation plan will be some of the most important documents to develop and implement early in the development of this project. A systematic environmental monitoring program of surface and underground water, creek sediments, soil, air, flora and wildlife conditions will be implemented, before, during and after mining operations.

All the mining facilities will be protected from pluvial waters by means of a system of diversion channels such as channels and/or road-gutters constructed around the different facilities footprint to direct water runoff further downstream.

Fine particle migration will be the main potential impact to surface water from the waste storage facilities. Surface drainage from the different mine areas, such as waste rock facilities, tailings or other disturbed area, will be directed into sedimentation basins or ponds for sediment settlement before discharging into natural water courses. Ponds and process areas will be constructed on an impermeable double layer system and will operate on a close circuit with no discharge to the natural environment. The capacity of the containment ponds will be estimated based on a 100 yr-24 hr rain event.

A sampling program of main surface streams at the project area should be implemented on a quarterly basis as part of the environmental baseline studies.

A hydrogeology study should be done to investigate the depth of the underground water and the aquifer vulnerability at the area where the tailing site is projected. The hydrogeology evaluations should also support the installation of wells for monitoring purposes. A monitoring program of underground water should be implemented, at least twice a year, on wells located close and upstream and downstream from the tailing site, leach pad, process plant and the waste storage facilities.

No air quality data is available for the project area. The type of air pollution expected from the mining development will be the emission of particles (dust) mainly from the material handling operations, the service road traffic and the rock crushing therefore the concentration of PST (total suspended particles) and PM-10 (suspended particle less than 10 microns) should be monitored in the surrounding environment before and during the mine operations. Potential emissions from the Dore production furnace should also be monitored, if produced on site.

Prior to any vegetation clearing a rescue and protection program will be executed to relocate any flora species of interest. The wood to be produced from the clearing of the areas may be provided to the nearby communities for its management. No hunting will be allowed to workers and contractors of the Project, adequate fencing will be maintained on all operational areas, to protect wild life.

Previous to the stripping and excavation of the land, the fertile layer of soil will be recovered and stored for future ecological restoration of the disturbed areas. Hydraulic works will be constructed for erosion control and soil conservation purposes. The works may consist of ditches, gabions, berms and/or rock mulch structures.

A detailed Closure and Reclamation Plan (CRP) will be prepared should this project proceed with the construction. In general terms, the CRP for the Tahuehueto Project will address the principles and guidelines of environmental regulation in Mexico as well as international best practices for the closure of this type of project. Concurrent reclamation will take place during the mine operation, although the majority of the work will occur after completion of mining and processing.

The objectives of the CRP will be based on the post-mining use of the land in addition to the following objectives: protection of public health and safety, protect the water resources, landforms stabilization and revegetation, preparation of the land for long term productive use and/or establishment of wildlife habitat.

Surface water diversion structure will be constructed around the mine openings. The end of mine design will leave stable pit walls. A protection fence and/or berms will be installed around mine openings to restrict the access of persons and fauna. Land scarification and seeding will be done on the surface disturbances to promote the development of vegetation cover. Partial backfilling of the openings and portals with waste rock produced during mining will be evaluated.

Slopes should be adjusted to provide a static and dynamic stability conditions. Erosion control structures will be constructed as necessary, such as rock armoring on the exterior slopes of the embankment and slope grading for stability.

The waste rock and tailings storage facilities will be contoured and graded for adequate surface water drainage. Water diversion features to control runoff around and within the tailing facility will be enhanced to avoid long term impact on the surface and underground water.

The waste rock and tailings should be characterized to determine the potential for acid drainage generation and metal leaching. Based on the results of the geochemical characterization of the material,

a cover with inert and impermeable material may be necessary to avoid water infiltration and formation of toxic leachate to the natural environment. On top of this layer, another layer of top soil or organic material will be placed and native seeds planted to promote the development of a vegetation cover. Downstream sedimentation ponds will function as sediment traps for runoff water, before reaching the natural water courses.

The solutions remaining in the ponds should be unloaded or evaporated in a safe manner. After the removal of pumping equipment, the plastic liner should be removed and the pond should be filled back with inert material and soil, allowing a good drainage out of this area. Land scarification, seeding and reforestation will complete the restoration of the pond sites

All remaining substances and residues will be removed from the process areas. The Hazardous residues generated will be delivered to an authorized firm for final disposal or recycling. Tanks containing chemical substances and fuels will be cleaned before removing them from the site. All facilities and equipment will be dismantled and buildings demolished.

After closure of the mine, the reclamation activities may be completed in short order, a periodic monitoring and maintenance program will continue for the necessary years until stable and safe conditions are achieved in all disturbed areas. Mine design, construction and operation should incorporate measures to minimize the requirements for care and maintenance at the abandonment stage.

The post-closure monitoring actions will include: underground opening closures, safety conditions, surface and underground water quality, air quality, vegetation development and wildlife reestablishment.

The quality of underground water and surface water bodies should be done on a quarterly basis. The monitoring sites should be within the drainage paths influenced by the tailing facility and the waste rock dumps.

Drainage and erosion control features should be maintained and/or constructed until stable conditions are observed on the soil and vegetation cover that will prevent from further erosion.

As the restored areas are functioning and the environmental monitoring indicates no harmful conditions, the frequency and intensity of the inspections and monitoring will be reduced until delivering the land for a post-mining use. An important goal of the mine reclamation will be the re-establishment of the vegetation cover, encouraging the natural succession of native species.

The closest important community to Tahuehueto is Tepehuanes (10,745 inhabitants), which has infrastructure and public services coverage such as: hotels, restaurants, electricity, cellular phone service, potable water, sewage system, landfill and airstrip for small planes.

Main economic activities at the region where the Tahuehueto project is located are cattle raising, agriculture, and forestry. The Project seems to be very well accepted and expected by most of the people living in the region. Job opportunities, services infrastructure improvement and technical training of local people are some of the most important benefits that the development of the Project will provide to the region. The local populace will also have access to potential employment opportunities, subject to the evaluation of individual qualifications, education, experience, as well as expectations for strict compliance with the code of conduct established for the Altaley workforce and contractor staff.

There are no known archaeological sites or areas of significant cultural interest within the Project concession. Implementation of a Community Relations Management Plan for the Project will also provide the means of detecting and appropriately responding to any changing stakeholder views with respect to cultural heritage concerns, as well as employment or contracting opportunities, health and safety, and other social considerations.

Altaley, on April 13, 2016, filed a preventative report named “Informe Preventivo – Exploracion Nom 120” with SEMARNAT, the Mexican government responsible authority for filing of notices of work. This document notified and established Altaley’s plans to commence underground exploration activities, as well as the rehabilitation of existing roads and other additional infrastructure. Included in the company’s work plans was the rehabilitation of the on-site mill processing and benefit plant. The rehabilitation of the benefit plant does not require authorization in environmental matters, according to the article 5, section L, subsection III, of the regulation of the Ley General del Equilibrio Ecologico y Protección al Ambiente and, for this reason, those rehabilitation activities were able to commence at any time.

On October 12, 2016, Altaley submitted an environmental impact study named a “Manifestacion de Impacto Ambiental” (MIA) to SEMARNAT, the responsible Mexican governmental authority. This MIA outlined the company’s plans to recommence commercial exploitation/production at Tahuehueto with the construction of new portals, access roads, establishment of waste rock and ore storage patios, construction of a new camp, rehabilitation of the existing tailing disposal and other infrastructure items.

(12) Capital and Operating Costs

Capital and operating costs used for the Tahuehueto Project were developed from cost build up from first principles engineering along with vendor and contractor quotations. In addition, all available project technical data and metallurgical test work were considered to build up a processing operating cost estimate.

A project configuration which included the underground mines and a central process facility was developed as the basis for capital cost estimation. Preliminary site infrastructure alternatives (process plant, tails storage facility, and power) were examined as a basis to estimate costs. Generalized

arrangements were evaluated to establish a physical basis for the capital costs estimates. Cost accuracy is estimated to be + or - 20%.

Capital costs were developed based production rates and from design assumptions. The costs are collected in two separate categories; initial capital (construction costs to initiate mining operations including Engineering, Procurement, and Construction Management ("EPCM"), mining and processing equipment, and contingency), and sustaining capital (additional equipment and equipment rebuilds). The estimated capital costs are listed in Table 21-1. Contingency was calculated on applicable items at a rate of 20%. Contingency was applied to all direct initial capital cost items. The contingency rate was determined based on confidence levels on capital used in the cost build up.

It can be noted that Altaley has already invested the majority of capital costs with 95% of capital equipment purchased and on site and has advance construction to 95% of completion such that capital costs are known with a very high level of certainty.

Table 21-1 Tahuehueto Total Capital Costs

Capital Category	Initial Investment up to 02/28/2022 ($M)	Investment Remaining as at 02/28/2022 to Generate Positive Cash Flow ($M)*	Investment to Reach Continuous & Sustainable Production ($M)**	Sustaining Capital Expenditures ($M)***	Total Capital Costs ($M)****
Processing facilities	10.29	1.86	0.93	0.13	13.21
Infrastructure facilities	2.22	2.17	0.85	0.15	5.39
Mine equipment	4.05	0.09	0.78	0.53	5.45
Tailings	0.06	0.83	0.38	1.50	2.77
Mine development	0.48	0.25	0.98	27.18	28.89
Mining rights	-	-	0.11	1.10	1.21
Subtotal	**17.10**	**5.20**	**4.03**	**30.59**	**56.92**
Contingency	-	-	1.19	3.06	4.25
Total CAPEX	**17.10**	**5.20**	**5.22**	**33.65**	**61.17**

* From Feb 28, 2022 to positive cash flow date

** From reaching positive cash-flow date to January 2023

*** From Jan 2023 to end of mine life

**** Life of mine capital costs and Pre-Jan 2022 capitalized costs

The initial capital costs are listed in Tables 21.2 and 21.3 for mining and processing respectively. They consist of costs essentially incurred after project approval, and after construction and operating permits were received. The costs were assumed to occur in years -1 and -2, and include all capital costs up to the start of production. The scope of the initial capital includes direct capital costs and indirect costs. Direct capital costs include construction process facilities, establishment of the mining facilities, and purchase of fixed and mobile mining equipment as necessary considering that Altaley will use contract mining services for the mine operation. Mining and milling equipment costs are based on quotations for specific units and mining cost services where specific quotes were not available. Major equipment is either brand new or refurbished equipment. Building and facilities procurement and construction costs are estimated by contractor quotations based on dimensions,

average construction costs, plus the extra cost for building in a remote area and were already built are incorporated at cost incurred.

Table 21-2 Mine Initial Capital Costs

Mine Capital Category	Cost $M
Mine Mobile Equipment Purchases	7.3
Mine Fixed Equipment Purchases	0.9
Mine Development	4.2
Contingency (20%)	2.5
Total CAPEX	**14.9**

Table 21-3 Processing Initial Capital Costs

Process Capital Category	Cost $M
Mill Equipment Purchases	9.5
Mill Construction	3.3
Tailings and Earthwork	0.6
Infrastructure	0.9
Contingency (20%)	2.9
Total CAPEX	**17.2**

Mining fixed equipment sustaining capital was primarily related to purchase of ventilation fans and mine development sustaining capital was for extension of the ore pass system. Sustaining capital costs are shown in Table 21.4.

Table 21-4 Sustaining Capital Costs

Mine Capital Category	Cost $M
Mine Mobile Equipment Rebuilds	3.7
Mine Fixed Equipment Purchases	0.3
Mine Development	0.6
Contingency (20%)	0.9
Total CAPEX	**5.4**

Operating unit costs are based on first principal engineering cost buildups for mining and processing operations. These costs were derived from materials, power, fuel consumption, and labor for each unit operation. Labor costs for the Project were estimated based on actual labor costs plus labor overheads for mine workers in Mexico supplied by Altaley. Consumables and fuel were primarily based on vender quotes, however equipment operating consumables and maintenance consumables were based on costing services. The mining cost build up on a total tonne basis (ore or waste) was similar to a comparable cost structure supplied by a contractor estimate for drift development mining of 5 m drifts at Tahuehueto. Operating costs are listed in Table 21.5.

Table 21-5 Tahuehueto Unit Operating Costs

Operating Costs	Unit	Unit Cost $
Development Mining	$/meter	1,278.1
Ore Mining	$/tonne ore	35.0
Processing	$/tonne ore	22.0
General and Administrative	$/tonne ore	3.0
Life of Mine	$/tonne ore	69.5

The economic performance of the Tahuehueto Project was evaluated with a cash flow based economic model using project costs and revenues as the financial basis. The revenue factors for the project are dependent on metal prices calculating into the net smelter return. The metal prices used for analysis are shown in Table 21-1. The NSR of the three concentrates produced in the mill are summarized in Table 22-2.

Table 22-1 Metal Prices for Economic Analysis

Economic Metrics	Units	LOM Value
Gold Price	$/oz	1,650
Silver Price	$/oz	21.02
Copper Price	$/lb	3.70
Lead Price	$/lb	0.91
Zinc Price	$/lb	1.15

Table 22-2 Net Smelter Return Summary

Item	Gross Revenue (k$)	Deductions (k$)	NSR (k$)
Lead Concentrate	455,088	29,521	425,567
Copper Concentrate	47,659	18,313	29,346
Zinc Concentrate	104,145	25,992	78,153
TOTAL	**606,892**	**89,300**	**533,065**

* Totals may not sum due to rounding.

The economic driver of the project is based on the net smelter return. The costs and payable metal values from the produced concentrates are calculated to give the NSR. The detailed NSR from the Tahuehueto mill productions is detailed in Table 22-3, Table 22-4 and Table 22-5.

Table 22-3 Lead Concentrate NSR

Item	Au	Ag	Cu	Pb
Distribution (% Recoveries)	77.1%	62.8%	31.6%	85.5%
Payable (%)	94.9%	94.9%	83.6%	94.5%
Gross Revenue (k$)	324,300	46,000	21,000	63,600
Deductions (k$)	18,400	3,300	4,200	13,900
Revenue (k$)	305,900	42,700	16,800	49,700
Freight & Marketing (k$)	4,700			
NSR (k$)	**410,400**			

Table 22-4 Copper Concentrate NSR

Item	Au	Ag	Cu
Distribution (% Recoveries)	6.8%	10.3%	51.4%
Payable (%)	94.8%	94.9%	95.8%
Gross Revenue (k$)	28,800	7,500	32,700
Deductions (k$)	1,500	400	2,800
Revenue (k$)	27,300	7,100	30,000
Freight & Marketing (k$)	400		
NSR (k$)	**64,000**		

Table 22-5 Zinc Concentrate NSR

Item	Au	Ag	Zn
Distribution (% Recoveries)	11.0%	11.7%	80.0%
Payable (%)	93.5%	89.9%	84.8%
Gross Revenue (k$)	46,200	7,500	118,400
Deductions (k$)	3,200	800	39,800
Revenue (k$)	42,900	6,700	78,600
Freight & Marketing (k$)	11,800		
NSR (k$)	**116,400**		

The production schedules presented in Section 16 and 17 have been used in conjunction with the cost data discussed in Section 21 to create a model for the Altaley's Project's economic performance. Costs are in constant 2021 US$, no escalation of cost has been assumed. Operating costs are generated based on production physicals (tonnes) and unit rates. The detailed cash flow model for the Tahuehueto Project is presented in Table 22-6. The results for economic analysis are summarized in Table 22-7.

Table 22-6 Tahuehueto Project Cash Flow

		LOM	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Costs ($k)														
	Mining Operating	77,356	5,484	6,944	6,911	6,940	7,217	7,609	7,475	7,506	7,173	7,322	6,777	-
	Processing Operating	38,219	2,497	3,619	3,619	3,619	3,619	3,619	3,619	3,669	3,619	3,619	3,103	-
	Concentrate TC/RC, Penalties, Shipping	73,825	4,847	6,311	6,145	6,660	6,765	7,272	7,381	7,444	8,497	7,768	4,735	-
	G&A, Maintenance, Other	131,054	11,501	11,682	11,491	11,370	11,702	12,428	12,372	12,630	13,341	12,578	9,959	-
	Subtotal OPEX	**320,455**	**24,329**	**28,556**	**28,164**	**28,588**	**29,302**	**30,927**	**30,847**	**31,250**	**32,630**	**31,287**	**24,574**	-
	Corporate G&A	8,250	647	784	791	886	801	782	804	725	742	726	563	-
	Reclamation Costs	7,729	606	735	741	830	750	733	753	680	695	680	527	-
	Capital Expenditures Sustaining		-	-	-	-	-	-	-	-	-	-	-	-
	Subtotal G&A, Reclamation, Sustaining	**15,980**	**1,253**	**1,519**	**1,531**	**1,715**	**1,551**	**1,515**	**1,558**	**1,405**	**1,437**	**1,406**	**1,090**	-
	Capital Expenditures	42,540	11,944	3,381	1,621	1,621	2,392	3,384	2,897	3,612	4,340	4,040	3,309	-
	Contingency (10%)	4,254	1,194	338	162	162	239	338	290	361	434	404	331	-
	Total All-In Cost	**383,228**	**38,720**	**33,793**	**31,479**	**32,087**	**33,485**	**36,165**	**35,591**	**36,628**	**38,840**	**37,136**	**29,304**	-
Discounted Cash Flow ($k)														
	EBIT	278,441	28,836	32,577	31,997	38,512	27,865	27,450	28,714	20,546	18,352	16,163	7,429	-
+	Depreciation	79,276	3,613	5,018	5,286	5,513	5,809	5,872	6,376	7,235	8,722	11,222	14,610	-
-	Capital Expenditures plus 10% Contingency	46,793	13,139	3,719	1,783	1,783	2,631	3,722	3,186	3,973	4,774	4,444	3,639	-
-	Taxes	93,634	8,222	6,968	7,799	12,343	9,053	9,057	10,289	8,184	7,969	7,971	5,778	-
-	Interest	5,186	2,250	1,911	838	186	-	-	-	-	-	-	-	-
-	Increase in NWC	90	296	(45)	82	(14)	(78)	(29)	(8)	20	(25)	(30)	(79)	-
-	Reclamation Costs	7,593	479	520	564	612	664	720	782	848	920	998	486	-
	Fee Cash Flow	**204,421**	**8,063**	**24,523**	**26,217**	**29,115**	**21,404**	**19,851**	**20,841**	**14,755**	**13,437**	**14,001**	**12,214**	-

Discounted Cash Flow		10%	8%	5%
Asset NPV	**USD $k)**	**130,777**	**141,795**	**161,287**

Table 22-7 Tahuehueto Project Economic Results

Economic Metrics	Units	LOM Value
Total Ore Processed	Tonnes/1,000	3,540
Contained Gold Produced	Ounces/1,000	279
Contained Silver Produced	Ounces/1,000	4,880
Contained Lead Produced	tonnes	33,911
Contained Copper Produced	tonnes	8,893
Contained Zinc Produced	tonnes	65,821
Total Net Smelter Return (Pb, Zn, Au, Ag, Cu	$Million	645.5
Gold Net Revenue	$Million	392.8
Silver Net Revenue	$Million	87.5
Lead Net Revenue	$Million	60.5
Zinc Net Revenue	$Million	78.4
Copper Net Revenue	$Million	26.2
Pre-tax NPV (5%) *	$M	234.4
Post-tax NPV (5%)	$M	161.3
Post-tax IRR **	%	65.5%
Payback Period	Years	2.0

* 5% discount considered reasonable due to advanced state of Tahuehueto construction where 90% of required capital has bee invested in the project, advancing construction past 95% completion, with most capital expenditures completed and therefore capital costs are known with substantially increased accuracy.

** IRR is calculated with approximately $34 million of pre-January 2022 expenses on the project. $19 million of pre-2015 costs of exploration, acquisition and carrying costs have been treated as sunk costs.

Table 22-8 Sensitivity of NPV, IRR and to varying gold prices - After-Tax

Gold Price ($/Oz)	After Tax ($M)				IRR (%)	Payback (Years)
	NPV (0%)	NPV (5%)	NPV (8%)	NPV (10%)		
1,450	171.6	134.2	117.3	107.8	50.5%	2.6
1,550	187.7	146.9	128.5	118.2	55.9%	2.3
1,650	204.4	161.3	141.8	130.8	65.5%	2.0
1,750	219.7	172.3	151.0	139.0	66.7%	2.0
1,850	235.7	185.1	162.2	149.4	72.2%	1.9

Table 22-9 Sensitivity of NPV, IRR and to varying gold mill recoveries - After-Tax

Mill Recovery Gold (%)	After Tax ($M)				IRR (%)	Payback (Years)
	NPV (0%)	NPV (5%)	NPV (8%)	NPV (10%)		
85.0%	170.2	134.1	117.7	108.5	53.3%	2.4
90.0%	190.1	149.9	131.7	121.4	60.5%	2.2
95.0%	204.4	161.3	141.8	130.8	65.5%	2.0
97.0%	210.4	166.0	146.0	134.7	67.6%	2.0

*PFS Baseline

(13) Exploration, Development and Production

Tahuehueto has invested over $40M in exploration, preliminary feasibility studies and mill construction. Contract miners have already mobilized to the Project. A 1,000 tonne per day processing plant is currently being constructed and is nearing 95% completion. Testing of the Tahuehueto Mill commenced April 5, 2022. Pre-production activities are expected to start in May 2022 and commercial production is expected to commence prior to the end of 2022. Altaley will be selling concentrates to generate cash flow starting with pre-production sales and continuing at full capacity concentrate sales after announcement of commercial production. Smelting contracts are already in place.

Continued exploration is warranted for the Project to investigate the possibility for discovery of new resources and reserves that may justify mill expansions and /or extending the life of mine. Current discovered ore bodies remain open in both direction along strike and to depth. Other yet undrilled veins, such as Texcalama, Delores, Tahuehueto, Tres de Mayo, Carolina are known to be mineralized on surface and justify exploration drilling. Extensions to the El Creston, Cinco de Mayo, El Rey, Perdido-Santiago vein structures, where resources and reserves are identified, require further exploration drilling to identify extensions of mineralization that may enhance future mining operations. The Santiago vein is largely undrilled and warrants a focused underground exploration drilling program between El Perdido and Santiago which are interpreted to be the same vein structure.

Metallurgy programs need to be implemented for the Cinco de Mayo structures. Mineralization at Cinco de Mayo shows slightly different characteristics to the near-term mineralization that is expected to be processed at the Tahuehueto mill. Results from the metallurgical tests would guide meaningful modifications to the processing facilities.

Subsequent phases are not recommended.

Table 26-1 Proposed Project Work Program

Budget Item	Description	Cost (1,000's)
Resource Expansion Drilling	Drill Santiago and Perdido Vein Extensions	$3,250
Geology G&A	Core Logging, Drilling management	$250
Geological Modeling	Update Geology Models based on UG pit mapping	$100
Resource Model Updates	Grade Estimation, Resource and Reserve Updates	$100
Assaying	QA/QC, Shipping, Assay Results	$150
Metallurgy	Metallurgical testing of Cinco de Mayo	$250
Total		**$4,100**

Sierra Antapite Mine

Section 9.2(1) of NI 43-101 states that an issuer whose interest in a mineral project is only a royalty or similar interest is not required to file a technical report to support disclosure in a document under subsection 4.2 of NI 43-101 (which includes an annual information form): (1) if (a) the operator or owner of the mineral project is (i) a reporting issuer in a jurisdiction of Canada, or (ii) a producing issuer whose securities trade on a specified exchange and that discloses mineral resources and mineral reserves under an acceptable foreign code; and (b) the issuer identifies in its document under subsection 4.2 (1) the source of the scientific and technical information; and (c) the operator or owner of the mineral project has disclosed the scientific and technical information that is material to the issuer.

Sierra Sun Group S.A.C. is a private Peruvian company and owner of the Sierra Antapite Gold Mine acquired in 2016. The Sierra Antapite Mine is a low sulphidation epithermal deposit, which produces gold and silver as a by-product.

The Company is exempted under Section 9.2 of NI 4-3101 from providing the required disclosure as the information required to provide such disclosure is not available to the Company.

The following information has been extracted from Sierra Sun Group S.A.C.'s web site www.sierrasungroup.com.

The Sierra Antapite Mine is located in the province of Huaytará, department of Huancavelica, Peru at an altitude between 3,200 and 3,380 meters above sea level.

It is accessible from the city of Ica (km 307 of the Panamericana Sur) town of Los Aquijes, from where the unpaved road starts towards Tingue – Córdova – Antapite (130 km approximately).

Veins hosted in volcanic and volcanosedimentary rocks, Eocene to Oligocene in age, overlying discordantly on a pre-volcanic substrate of Mesozoic sediments and also on a basement constituted by the Batholith of the Coast.

There are two systems of structures, the first of which is Andean NW-SE (current area of operation). The second system is trans-Andean trending NE-SW, represented by the veins of the Accocancha and Carmencita zones. The process plant facilities are located in the area called Chocllanca.

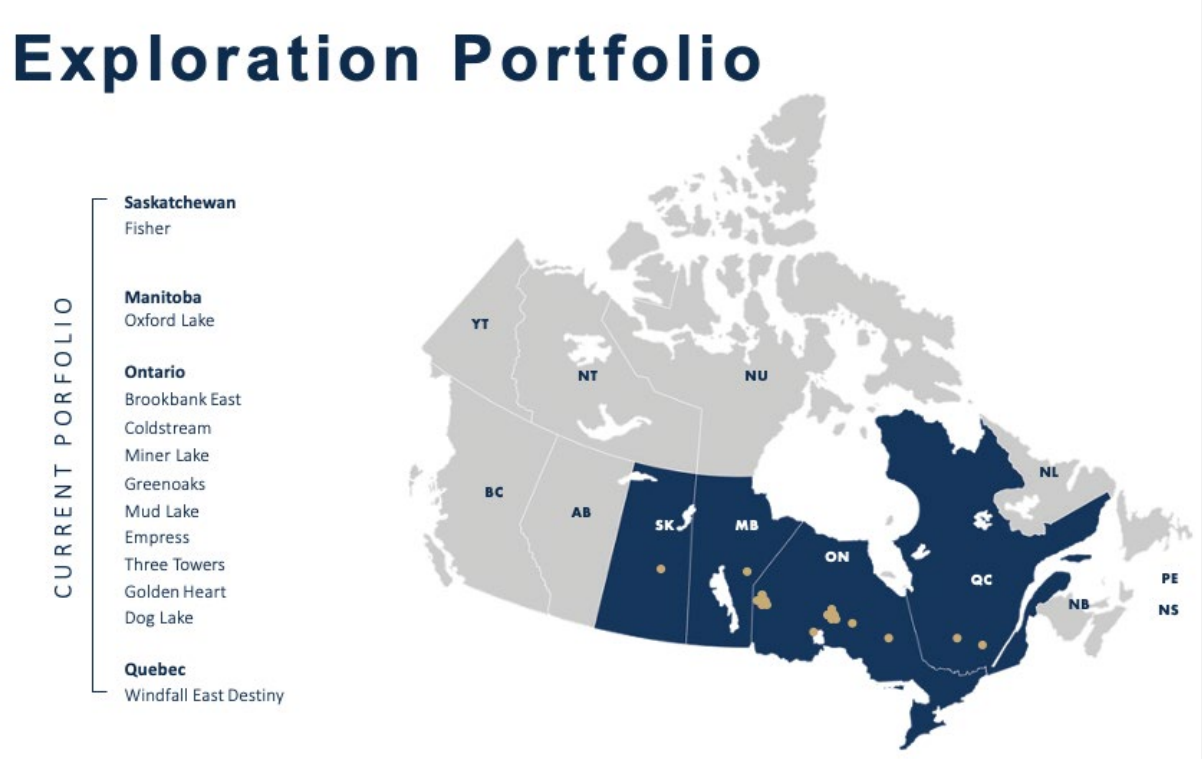
It is currently benefiting 700 TMSD and contemplates the following processes: Crushing (Primary Quijada Traylor 15' x 30' and Secondary Conical Symons 4 ¼"), Grinding (Primary Ball Mill 9'x13' and Secondary 8'x10'), classification and gravimetry (Falcón SB-750), thickening (Thickener 60'x12'), cyanidation (6 Tanks 30'x30'), activated carbon adsorption (6 Tanks 14'x16'), desorption, ILR, electrodeposition, smelting, destruction of cyanide (Use of Caro's acid) and disposal of tailings.

The tailings dam from the beginning of operations has a water recovery system that allows to provide the necessary water for the operation of the process plant, a floating pumping system is used that sucks the supernatant water and leads it to a water storage tank.

Other Investments

Big Ridge Royalties Purchases

The Company's investment portfolio includes the following royalties acquired in the Big Ridge Royalties Purchases, as summarized below. None are material to Empress.



Property Name	Description/Summary	Operator	Royalty
Windfall East Quebec	The Windfall East property lies adjacent to Osisko's Windfall project in the Urban Township. Recent drilling by Osisko indicates that if the trend of their high-grade Lynx Zone extends to the northeast, it may pass onto the northwest corner of Alto's former Windfall East project.	Osisko Mining Inc.	1% NSR due from Osisko - adjacent to Osisko Lynx Zone. Osisko has a buyback right of 0.5% for C$1 million.
Coldstream Ontario	Located in northwestern Ontario in the Shebandowan greenstone belt. The claims cover the East Coldstream gold deposit with NI43-101 compliant resources of 2.25 Mt Indicated at an average grade of 1.05 g/t Au (76,000 contained ounces) and 16.97 Mt Inferred at an average grade of 1.01 g/t Au (549,000 contained ounces), using a 0.6 g/t Au cut-off grade.	Goldshore Resources Inc.	Several claims subject to 0.5% - 1.5% NSR from Goldshore.
Empress Ontario	The Empress property lies within the Archean Hemlo-Schreiber Greenstone Belt in the Wawa sub-province in the Superior Province of Ontario. The property covers approximately 3 km segment of a mineralized shear zone with quartz veins locally carrying high-grade gold values.	Sanatana Resources Inc.	1% NSR on all claims from Sanatana
Three Towers Ontario	The property lies in the Beardmore-Geraldton greenstone belt, within the southern Wabigoon lithotectonic domain of the Superior Province.	Caprock Mining Corp.	0.5% NSR on all claims.
Miner Lakes & Greenoaks	The Miner Lake and Greenoaks Properties are contiguous claims situated in the Eastern Wabigoon Subprovince of the Superior Province of Ontario, within the Elmhirst-Castlewood-Koltz greenstone belt north of the Beardmore-Geraldton greenstone	Caprock Mining Corp.	0.5% NSR on claims which already have a NSR

Ontario	belt. The Miner Lake property hosts numerous surface and in drill core gold occurrences that have geological similarities to the Cote gold deposit being developed by Iamgold approximately 100 km southwest of Timmins. 43-101 Technical Report completed on Miner Lake in November 2020	Caprock Mining Corp.	1.0% NSR on claims which have no NSR.
		Caprock Mining Corp.	0.5% NSR on all claims.
Brookbank East Ontario	The Brookbank East gold property is situated in the Beardmore-Geraldton greenstone belt south of the Pain Lake Fault.	Caprock Mining Corp.	1.0 % NSR on all claims.
Golden Heart Ontario	The property lies in the Beardmore-Geraldton gold belt and is located approximately 10 km west of Beardmore, covers over 5 km segment of a sheared package of intercalated clastic meta-sediments and banded iron formation (BIF). The property adjoins the southern property line of the former producing Leitch gold mine which produced almost 850,000 ounces of gold. The average head grade of the Leitch was over 31 g/t Au.	Caprock Mining Corp.	1.0% NSR on all claims.
Mud Lake Ontario	The Mud Lake Property is in the Onaman-Tashota greenstone belt (OTGB) in the southern Wabigoon Subprovince of the Superior Province, of Ontario. The property hosts at least 12 shear hosted gold occurrences along a six kilometer segment of the Mud Lake Shear Zone.	Caprock Mining Corp.	0.5% NSR on claims which already have a 2.5% NSR.
			1.0% NSR on claims which have no NSR.
Destiny Quebec	The Destiny Property covers a 12 kilometer-long, gold endowed segment of the Amos-Barraute section of the southeastern portion of the Abitibi Greenstone Belt along the Despinassy Shear (a splay off the regionally extensive Chicobi Fault Zone). The Destiny property hosts the DAC gold deposit, one of several significant gold occurrences on the property. The DAC deposit host NI43-101 compliant resources of 10.8 Mt Indicated at an average grade of 1.05 g/t Au (364,000 contained ounces) and 8.3 Mt Inferred at an average grade of 0.92 g/t Au (247,000 contained ounces) using a 0.5 g/t Au cut-off grade. The mineralization is open on strike to the east and west and to depth.	Big Ridge Gold Corp. Destiny – A Claims	No royalty due to existing royalties of 3.5% but right of first refusal if Big Ridge does any future royalty or stream financings in relation to these claims.
		Big Ridge Gold Corp. Destiny – B Claims	0.5% NSR on all claims which have an NSR Royalty of <3.5%.
		Big Ridge Gold Corp. Destiny – C Claims	0.5% NSR on all C Claims.
		Big Ridge Gold Corp. Destiny – D Claims	1.0% NSR.
Oxford Lake Manitoba	The Oxford Lake property lies in the southwest portion of the Archean Oxford-Knee Lake greenstone belt in the Oxford-Stull Domain of the western Superior Province of Manitoba. The principal target model for Oxford Lake is Banded Iron Formation (BIF) and there already is a historical deposit, the Rusty Gold Deposit that was discovered in the late 1980's. The Rusty deposit has reported historical resources of 800,000 tonnes averaging 6 g/t Au. The deposit is open on strike and to depth. Another significant area of mineralization is the Blue Jay zone, located approximately 2 km east of Rusty; gold mineralization here is also associated with BIF. To the west, a large target area, extending for over 10 km is interpreted to be BIF but it has	Big Ridge Gold Corp. Oxford Lake – Mineral Exploration Licenses	1.0% NSR.
		Big Ridge Gold Corp. Oxford Lake – Disposition Number W46695	0.5% NSR.

	been tested by only two drill holes, one of which returned almost 1 g/t over 3 m intercept in BIF.	Big Ridge Gold Corp. Oxford Lake – All Other Disposition Number	No royalty due to existing royalties of 3.5% on the claims but right of first refusal if New Alto does any future royalty or stream financing.
Fisher Saskatchewan	The property is located in the Glennie Lake Domain, approximately 80 km northwest of Flin Flon. The property hosts a historical deposit containing 650,000 tons grading 3.5% Zn, 0.5% Cu. Main target is VMS style zinc mineralization.	Big Ridge Gold Corp.	0.5% NSR on claims which already have NSR, 1% NSR on Alto staked claims.
Dog Lake Ontario	The property is located in the Wawa area, approximately 14 km south of Missinabie. Historical work was limited, dating back to the 1960's and resulted in the discovery of a gold bearing shear that was traced for over 1.5 km along strike and returned up to 25 g/t Au in grab samples.	Big Ridge Gold Corp.	1% NSR on all claims.

ARTICLE 5
DIVIDENDS

Section 5.1 Dividends

Empress has not paid dividends since incorporation. The declaration, timing, amount and payment of dividends are at the discretion of the Board and will depend upon Empress' future earnings, cash flows, acquisition capital requirements and financial condition, and other relevant factors. There can be no assurance that Empress will declare a dividend on a quarterly, annual or other basis.

ARTICLE 6
DESCRIPTION OF SHARE CAPITAL

Section 6.1 Common Shares

The Company is authorized to issue an unlimited number of Shares without par value. As December 31, 2021 and the date of this AIF, 104,574,385 Shares, were issued and outstanding.

Holders of Shares are entitled to one vote per Share at all meetings of shareholders, and to receive dividends as and when declared by the directors and to receive a pro rata share of the assets of Empress available for distribution to holders of Shares in the event of liquidation, dissolution or winding-up of Empress.

ARTICLE 7
MARKET FOR SECURITIES

Section 7.1 Trading Price and Volume

The Company's Shares were listed and posted for trading on the TSXV under the symbol "**EMPR**" at the commencement of trading on December 29, 2020. The table below sets forth the high and low prices

and the volumes for the Shares traded for twelve months through the TSXV from January 1, 2021 to the date of this AIF.

	High	Low	Volume
January 2021	$1.55	$0.57	3,586,856
February 2021	$0.88	$0.45	1,936,081
March 2021	$0.70	$0.41	7,463,027
April 2021	$0.45	$0.39	4,314,344
May 2021	$0.45	$0.395	3,812,185
June 2021	$0.415	$0.35	2,989,669
July 2021	$0.40	$0.33	1,623,250
August 2021	$0.385	$0.33	1,762,524
September 2021	$0.38	$0.285	3,425,515
October 2021	$0.32	$0.25	4,002,652
November 2021	$0.31	$0.28	1,925,506
December 2021	$0.32	$0.255	1,754,338
January 2022	$0.315	$0.27	1,154,974
February 2022	$0.345	$0.27	1,032,384
March 2022	$0.335	$0.275	1,065,891
April 2022	$0.295	$0.245	1,690,260

ARTICLE 8
ESCROW SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTIONS ON TRANSFER

Section 8.1 Escrowed Securities and Securities Subject to Restriction on Transfer

All securities issued pursuant to private placements are subject to the regulatory four (4) month hold period.

As of the date of this AIF, the following sets out the securities of the Company that, to the knowledge of the Company, are held in escrow (the "**Escrow Securities**") or are subject to contractual restrictions on transfer.

The Principals of Empress are parties to a Tier 2 value security escrow agreement (the "**Escrow Agreement**") entered into with Computershare Investment Services Inc. "**Principals**" of Empress include all directors, all officers, and any shareholder who holds in excess of 20% of the Shares and it also

includes any shareholder of Empress who holds in excess of 10% of Shares and who has elected or appointed, or has the right to elect or appoint, one or more directors or officers of the Empress. The table below sets out the names of the Principals of Empress. Also subject to escrow Beneath the Surface Capital Corp. and NV Marketing Ltd., two companies controlled by persons providing investor relations services to Empress.

Name of Shareholder	Type of Securities Held In Escrow	Number and Percentage of Class[1]	Type of Securities Held In Escrow	Number and Percentage of Class[1]
Paul Mainwaring	Shares	169,744 / 0.2%	Stock Options	900,000 / 10%
Alexandra Woodyer Sherron	Shares	2,000,000 / 1.9%	Stock Options	1,250,000 / 14%
Richard Mazur	Shares	366,425 / 0.4%	Stock Options	900,000 / 10%
George Wesley Roberts	Shares	200,000 / 0.2%	Stock Options	500,000 / 6%
Endeavour Financial AG[2]	Shares	8,444,758 / 8.1%	Stock Options	-
Endeavour Financial Ltd. (Cayman)[2]	Shares	308,703 / 0.3%	Stock Options	-
David Rhodes	Shares	-	Stock Options	1,250,000 / 14%
Terra Capital Natural Resource Fund Pty Ltd.[3]	Shares	11,883,461 / 11.4%	Stock Options	-
Jeremy Bond	Shares	-	Stock Options	1,000,000 / 11%
Beneath the Surface Marketing Corp.	Shares	500,000 / 0.5%	Stock Options	-
NV Marketing Ltd.	Shares	500,000 / 0.5%	Stock Options	500,000 / 6%
TOTAL		**24,373,093**		

Notes to Table:

(1) Based on 104,574,385 Shares issued and outstanding. There are no share purchase warrants or outstanding. The stock options were granted on April 19, 2021 and are subject to the Escrow Agreement.

(2) David Rhodes, Executive Chairman and Director of the Company, controls Endeavour Financial Limited, a UK company, and its wholly-owned subsidiary Endeavour Financial AG and is a director of Endeavour Financial Cayman (Limited), a Cayman Islands company.

(3) Jeremy Bond, a Director of the Company, controls the 11,883,461 Shares owned by Terra Capital Natural Resources Fund Pty Ltd.

The aggregate 24,373,093 Shares set out in the table above, collectively the Escrow Securities have been deposited in escrow with the Escrow Agent pursuant to the Escrow Agreement. The Escrow Agreement provides that 10% of the Escrow Shares will be released from escrow upon issuance of the Final Exchange Bulletin, being December 23, 2020, an additional 15% will be released on the date that is six months following the issuance of the Final Exchange Bulletin and an additional 15% every six months thereafter.

In addition, 6,300,000 stock options granted to Principals on April 19, 2021 fall under the Escrow Agreement.

ARTICLE 9
DIRECTORS AND OFFICERS

Section 9.1 Name, Occupation and Security Holding

The following table sets out the name, jurisdiction of residence of our directors and executive officers as well as their positions with the Company and principal occupation for the previous five years, and the number and percentage of the Shares owned, directly or indirectly, or over which control or direction is exercised, by each of our directors and executive officers. All officers and employees are required to sign standard confidentiality and non-disclosure agreements with the Company.

Name, Current Position, and Province and Country of Residence	Position Held Since	Principal Occupation(s) During Past Five Years	Shares Beneficially Owned or Controlled	Total Ownership on an Undiluted Basis
David Rhodes[2][3] Executive Chairman and Director London, England	July 7, 2020	Managing Director of Endeavour Financial AG.	8,753,461[6]	8.37%
Alexandra Woodyer Sherron[2][4][5] Chief Executive Officer, President and Director British Columba, Canada	March 2, 2020	Chief Executive Officer and President and of the Company. Former President of Empress Resources Corp. Alexandra has over 20 years' experience in the mining industry and with public companies.	2,000,000	1.91%
Jeremy Bond[1][2][3] Director Sydney, Australia	July 7, 2020	Chief Investment Officer of Terra Capital Natural Resource Fund Pty Ltd. since 2010.	14,383,462[7]	13.75%
Paul Mainwaring[1][3] Director London, England	July 7, 2020	Associate Director at Endeavour Financial for the past 14 years.	169,744	Less than 1%
George Wesley Roberts[4][5] Director Ontario, Canada	July 7, 2020	Professional engineer, Technical Committee co-chair Sigma Lithium Resources, Mining Consultant to multiple Canadian-based First Nations.	200,000	0.19%
Natascha Kiernan[1][4][5] Director British Columbia, Canada	April 19, 2021	Lawyer, independent director and strategic consultant. Natascha is the founder and is currently the principal of Bellevue Strategic Advisory, a business consultancy practice.	-	-
Dan O'Brien Chief Financial Officer British Columbia, Canada	March 2, 2020	Chief Financial Officer to the Company. Dan is also Chief Financial Officer for a number of publicly listed exploration companies trading on the TSX and TSXV. Dan is a principal of Golden Oak.	-	-
Doris Meyer Corporate Secretary British Columbia, Canada	March 2, 2020	Corporate Secretary to the Company; Doris organized Golden Oak in 1996. Doris is also Corporate Secretary for a number of publicly listed exploration companies trading on the TSX and TSXV.	-	-

Notes to Table:
(1) A member of the Audit Committee.
(2) A member of the Investment Committee.
(3) A member of the Compensation and Governance Committee
(4) A member of the Corporate Governance and Nomination Committee
(5) A member of the Environmental, Sustainability and Governance Committee
(6) David Rhodes, Executive Chairman and Director of the Company, controls Endeavour Financial Limited, a UK company, which holds 8,444,758 Shares through its wholly-owned subsidiary Endeavour Financial AG and is Managing Director a director of Endeavour Financial Cayman (Limited), a Cayman Islands company, which holds 308,703 Shares.
(7) The 14,383,461 Shares are owned by Terra Capital Natural Resources Fund Pty Ltd. and controlled by Jeremy Bond.

The Directors of the Company are elected at each annual general meeting, unless appointed in the interim in accordance with the Company's Articles, and hold office until the next annual general meeting, or until their successors are duly elected or appointed in accordance with the Company's Articles, or until such director's earlier death, resignation or removal.

Section 9.2 Corporate Cease Trade Orders

To the best of management's knowledge, no director or executive officer of the Company is or has been within 10 years before the date of this AIF, a director, CEO or CFO of any company that: (i) while that person was acting in that capacity, was the subject of a cease trade or similar order or an order that denied that person or company access to any exemption under securities legislation for a period of more than 30 consecutive days, or (ii) was subject to a cease trade or similar 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, CEO or CFO and which resulted from an event that occurred while that person was acting in the capacity of director, CEO or CFO.

Section 9.3 Bankruptcies

To the best of management's knowledge, no director, executive officer or shareholder holding a sufficient number of shares to materially affect control of the Company: (i) is or has been within the 10 years before the date of this AIF, a director or executive officer of any 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 (ii) has, within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or became subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold its assets.

Section 9.4 Penalties/Sanctions

To the best of management's knowledge, no director, executive officer or shareholder holding a sufficient number of shares to materially affect 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 in making an investment decision.

Section 9.5 Conflicts of Interest

In the event conflicts arise at a meeting of the Board, a director who has such a conflict will declare the conflict and abstain from voting. In appropriate cases, the Company will establish a special committee of independent non-executive directors (drawn from the majority of its members who must at all times be "independent" within the meaning of NI 52-110) to review a matter in which one or more directors or management may have a conflict.

To the best of the Company's knowledge there are no known existing or potential conflicts of interest between the Company and any director or officer of the Company, except that certain of the directors of the Company serve as directors and officers of other public and private companies and it is therefore possible that a conflict may arise between their duties as a director or officer of the Company and their duties as a director or officer of such other companies. Where such conflicts arise, they will be addressed as indicated above.

Section 9.6 Audit Committee

The Company formed an Audit and Risk Committee (the "**Audit Committee**") on August 26, 2020. In the fifteen months ended December 31, 2021, the Audit Committee was composed by Jeremy Bond, Paul Mainwaring and Richard Mazur, each of whom is financially literate as such term is defined in NI 52-110. Paul Mainwaring and Richard Mazur are considered independent. Jeremy Bond represents Terra Capital, a greater than 10% shareholder of the Company, is not considered independent.

Natasha Kiernan, an independent director, replaced Richard Mazur on the Audit Committee on April 19, 2021.

A description of the education and experience of each Audit Committee member that is relevant to the performance of his responsibilities as an Audit Committee member may be found above under the heading "**Executive Officers and Directors**".

The Audit Committee is responsible for reviewing the Company's financial reporting procedures, internal controls and the performance of the financial management and external auditors of the Company. The Audit Committee will also review the annual audited financial statements and make recommendations to the Board. The Company is relying on the exemption set out in section 6.1 of NI 52-110. A copy of the Audit Committee's charter is attached as Schedule "A".

(a) Audit Committee Oversight

(i) Since the commencement of the Company's most recently completed financial year, there has not been a recommendation of the Audit Committee to nominate or compensate an external auditor which was not adopted by the Company's Board.

(b) Pre-Approval Policies and Procedures

(i) The Audit Committee will have authority and responsibility for pre-approval of all non-audit services to be provided to the Company or its subsidiary entities by the external auditors or the external auditors of the Company's subsidiary entities, unless such pre-approval is otherwise appropriately delegated or if appropriate specific policies and procedures for the engagement of non-audit services have been adopted by the Audit Committee.

Composition of the Audit Committee

The following sets out the education and experience of each audit committee member that is relevant to the performance of his responsibilities as an audit committee member and that provides each member with: (i) an understanding of the accounting principles used by the Company to prepare its financial statements; (ii) the ability to assess the general application of such accounting principles in connection with the accounting for estimates, accruals and provisions, (iii) experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the Company's financial statements, or experience actively supervising one or more individuals engaged in such activities; and (iv) an understanding of internal controls and procedures for financial reporting:

(a) *Paul Mainwaring, Director*

Paul Mainwaring, the Chair of the Audit Committee, has over fifteen years' experience in corporate finance and in the last eleven years, whilst at Endeavour Financial, has focused on financings in the natural resources sector. He is current Associate Director of Endeavour Financial. Mr. Mainwaring has extensive experience in cash flow modelling, financial analysis, valuation, debt advisory, deal structuring and the negotiation, documentation and execution of mining finance transactions and re-financings. Prior to joining Endeavour Financial in 2006, he worked for PricewaterhouseCoopers in their Valuation & Strategy department and was involved in valuation assignments and corporate transactions across a range of sectors and also previously worked as a chemical engineer in the petrochemical and pharmaceutical industries. CFA qualified. Mr. Mainwaring is considered a financial expert.

(b) *Natascha Kiernan, Director*

Natascha Kiernan is a lawyer, strategic consultant and public company director. She holds a JD from Columbia University and has approximately 18 years of experience specializing in transactions involving mining and other natural resources. Natascha has held senior positions with several prominent international law firms, including the New York and London offices of Skadden, Arps, Slate, Meagher & Flom, and was listed as a "Top 40 under 40" rising legal star by the Financial News. She brings extensive legal experience in mining, as well as corporate governance expertise. Natascha has served or currently serves on the audit committees of several public companies and a Crown corporation. She has extensive experience in structuring and negotiating complex financing arrangements and in reviewing financial statements.

(c) *Jeremy Bond, Director*

Jeremy Bond is the Chief Investment Officer and founder of Terra Capital the holder of 14,383,461 shares (13.75%) of the Company at the date of this AIF. Terra Capital is a specialist investment manager with a proven track record of performance, a focus on risk management and with a management team that is strongly aligned with investors. Mr. Bond previously worked at UK Hedge Fund RAB Special Situations Fund at RAB Capital Plc. Prior to joining RAB, Mr. Bond was an Associate at Azure Capital, a boutique investment bank based out of Perth, WA. He worked on numerous merger and acquisitions, as well as being involved in a number of capital raisings in the small cap sector. Mr. Bond has experience in financial matters and is financially literate.

(d) *Richard Mazur, Director*

Richard Mazur is the CEO and director of Forum Energy Metals Corp., and a director of Impact Silver Corp. and Midnight Sun Mining Corp. Mr. Mazur, P. Geo, MBA is a geoscientist who has held positions in the international exploration and mining industry for over 40 years as a project geologist, financial analyst and senior executive on uranium, gold, base metals, coal and industrial minerals projects. Mr. Mazur graduated with a B.Sc. in Geology from the University of Toronto in 1975 and obtained an MBA from Queen's University in 1985. Mr. Mazur worked for seven years (1985 to 1991) as an integral member of the management team of Canamax Resources Inc. which discovered, financed and built three Canadian gold mines, two of which currently remain in production. Richard Mazur is a senior level businessman with experience in financial matters and is financially literate.

Reliance on Certain Exemptions

Under section 6.1 of NI 52-110, the Company is exempt from the requirements that a majority of its audit committee be "independent" as defined in section 1.4 of NI 52-110. For "venture issuers," the National Instrument prescribes that a majority of the members of an audit committee must not be executive officers, employees or control persons of the venture issuer or of an affiliate of the venture issuer. The Company satisfies this requirement.

Audit Committee Oversight

Since the commencement of the Company's most recently completed financial year, the Board has not failed to adopt a recommendation of the Audit Committee to nominate or compensate an external auditor.

Pre-Approval Policies and Procedures

The Audit Committee has adopted specific policies and procedures for the engagement of non-audit services as set out in the Audit Committee Charter of the Company as disclosed under the heading entitled "**External Auditors**".

External Auditor Service Fees

In the following table, "**audit fees**" are fees billed by the Company's external auditor for services provided in auditing and/or reviewing the Company's annual and interim financial statements for the subject year. "**Non-Audit fees**" are fees not included in audit fees that are billed by the auditor for assurance and related services that are reasonably related to the performance of the audit review of the Company's financial statements. "**Tax fees**" are fees billed by the auditor for professional services rendered for tax compliance, tax advice and tax planning. " **All other fees**" are fees billed by the auditor for products and services not included in the foregoing categories.

The fees billed to the Company by its auditor for the 15 months ended December 31, 2021 and for the period from incorporation on March 2, 2020 to September 30, 2020, by category, are as follows, stated in Canadian dollars:

Financial Year Ended	Audit Fees	Non-Audit Fees	Tax Fees	All Other Fees
December 31, 2021	C$75,000	C$40,750	C$5,500	C$18,750
September 30, 2020	C$35,000	C$0	C$0	C$11,000

ARTICLE 10
LEGAL PROCEEDINGS AND REGULATORY ACTIONS

Section 10.1 Legal Proceedings

The Company is subject from time to time to legal proceedings and claims, either asserted or unasserted, that arise in the ordinary course of business. While the outcome of these proceedings and claims cannot be predicted with certainty, the Company's management does not believe that the outcome of any of these legal matters will have a material adverse effect on its consolidated financial position, results of operations or cash flows.

ARTICLE 11
INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Section 11.1 Interest of Management and Others in Material Transactions

Since the Company's incorporation, no director, executive officer, or shareholder who beneficially owns, or controls or directs, directly or indirectly, more than 10% of the outstanding Shares, or any known associates or affiliates of such persons, has or has had any material interest, direct or indirect, in any transaction or in any proposed transaction that has materially affected or is reasonably expected to materially affect the Company other than the Arrangement agreement, the Endeavour Cayman Agreement and the Bond Agreement.

Endeavour Cayman Agreement

Empress is party to a services agreement dated July 31, 2020, as amended July 9, 2021 (the "**Endeavour Cayman Agreement**"), with Endeavour Financial Ltd. (Cayman), a company incorporated under the laws

of Cayman Islands ("**Endeavour Cayman**"). Endeavour Cayman is a financial advisor providing services to businesses in the natural resources sector. Empress director David Rhodes owns a minority interest in Endeavour Cayman and is one of its five directors Pursuant to the Endeavour Cayman Agreement, the Company has engaged Endeavour Cayman to act as its investment manager, and to provide the following services on a non-exclusive basis to the Company to:

(a) conduct due diligence in connection with potential opportunities in the resource sector, including potential streams and royalties ("**Business Investments**");

(b) identify, structure and negotiate transactions for possible Business Investments;

(c) develop and assist in the execution of the Business Investments; and

(d) assist with the identification, evaluation and implementation of funding options including possible debt facilities (a "Debt Transaction"), as well as corporate mergers and acquisitions or similar business combinations (a "Corporate Transaction").

In consideration for providing the foregoing services, Endeavour Cayman is paid a management fee of $15,000 per month. In addition, the Company will pay Endeavour Cayman a success fee at the time of closing a Debt or Corporate Transaction(s) of 2% of the Transaction Value.

The Endeavour Cayman Agreement has an initial term of two years. It is subject to automatic renewals for additional one-year periods unless one of the parties gives the other three months' notice prior to the commencement of any such extended term.

Transaction Value is defined as:

- For Debt Transactions, the principal amount provided or committed to be provided to the Company and/or its subsidiaries, which shall include any amounts provided as part of an accordion facility and the refinancing or assumption of any existing debt.

  For Corporate Transactions, the cash value of any consideration paid (including, without limitation, cash, securities and property), plus the amount of debt assumed (including short term debt, current portions of long-term debt and capital lease obligations).

Bond Agreement

Empress is party to a services agreement (the "**Bond Agreement**") dated April 1, 2020 with Jeremy Bond, a director of Empress. Mr. Bond is the Chief Investment Officer and founder of Terra Capital. Pursuant to the Bond Agreement, the Company has engaged Mr. Bond to act as an investment manager, in conjunction with the raising of certain private placements and to assist in the evaluation of Business Investments for the Company.

In consideration for providing the foregoing services, Mr. Bond is paid a fee of $15,000 per month. Mr. Bond may also be paid bonuses in amounts to be determined on the completion of significant

transactions undertaken by the Company, in the discretion of the Board. The Bond Agreement has a renewable term of one year.

ARTICLE 12
TRANSFER AGENT AND REGISTRAR

Section 12.1 Transfer Agent and Registrar

The transfer agent and registrar for the Shares is Computershare Investor Services Inc. in Vancouver, British Columbia. The register of transfers of the Shares is located at Computershare's office in Vancouver, British Columbia.

ARTICLE 13
MATERIAL CONTRACTS

Section 13.1 Material Contracts

The following are the material contracts of the Company:

(a) the Endeavour Cayman Agreement;

(b) the Bond Agreement;

(c) the Candelaria Pinos Royalty Agreement;

(d) the McLeroy Pinos Royalty Agreement;

(e) the Manica Royalty Agreement;

(f) the Sierra Antapite Gold Stream Agreement;

(g) the Tahuehueto Silver Stream Agreement; and

(h) the Nebari Accordion Facility agreement.

ARTICLE 14
EXPERTS

Section 14.1 Names of Experts

Davidson & Company, LLP, the Company's independent auditors, have audited the Company's financial statements for the 15 months ended December 31, 2021. As of the date hereof, Davidson & Company, LLP has confirmed they are independent with respect to the Company within the meaning of the Code of Professional Conduct of the Chartered Professional Accountants British Columbia.

Richard Mazur, P.Geo, a Qualified Person as defined by National Instrument 43-101 Standards of Disclosure for Mineral Projects, has read and approved all technical and scientific disclosure contained in this AIF. Mr. Mazur is a former Director and current consultant of the Company.

To the knowledge of Empress, Mr. Mazur holds 0.4% of the outstanding Shares of Empress as of the date hereof. Mr. Mazur has not and will not receive any direct or indirect interest in any securities of Empress as a result of the review and approval of the technical and scientific disclosure included in this AIF.

Additionally, Mr. Uwe Engelmann, BSc (Zoo.& Bot.), BSc Hons (Geol.), Pr.Sci.Nat., MGSSA of Minxcon (Pty) Ltd., is also a "qualified person" as defined in NI-43-101 and authored the Fair Bride Technical Report. As of February 1, 2021 Mr. Engelmann held nil securities in the Company. Mr. Engelmann has not received any direct or indirect interest in the Company's property and did not receive any direct or indirect interest in any of the Company's securities or the securities of any associate or affiliate of the Company in connection with his review of the scientific and technical information in the Fair Bride Technical Report.

Section 14.2 Interest of Experts

To the best of the Company's knowledge, none of the foregoing experts held any registered or beneficial interest, direct or indirect, in any securities or other property of the Company or any of its associates or affiliates and no securities or other property of the Company or any of its associates or affiliates were subsequently received or are to be received by such experts.

ARTICLE 15
ADDITIONAL INFORMATION

Section 15.1 Additional Information

Additional information relating to the Company may be found on SEDAR at www.sedar.com. Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities and securities authorized for issuance under equity compensation plans, is contained in the Company's Information Circular dated May 18, 2021 and may be found on SEDAR at www.sedar.com. Additional financial information is provided in the Company's financial statements and MD&A for the fifteen month period December 31, 2021 available on SEDAR at www.sedar.com.

SCHEDULE "A"

Audit and Risk Committee Charter

EMPRESS ROYALTY CORP.
(the "**Company**")

AUDIT AND RISK COMMITTEE CHARTER

MANDATE

The purposes of the Audit and Risk Committee are to assist the Board of Directors:

1. in its oversight of the Company's accounting and financial reporting principles and policies and internal audit controls and procedures;

2. in its oversight of the integrity, transparency and quality of the Company's financial statements and the independent audit thereof;

3. in selecting, evaluating and, where deemed appropriate, replacing the external auditors;

4. in evaluating the qualification, independence and performance of the external auditors;

5. in its oversight of the Company's risk identification, assessment and management program; and

6. in the Company's compliance with legal and regulatory requirements in respect of the above.

The function of the Audit and Risk Committee is to provide independent and objective oversight. The Company's management team is responsible for the preparation, presentation and integrity of the Company's financial statements. Management is responsible for maintaining appropriate accounting and financial reporting principles and policies and internal controls and procedures that provide for compliance with accounting standards and applicable laws and regulations.

The external auditors are responsible for planning and carrying out a proper audit of the Company's annual financial statements and other procedures. In fulfilling their responsibilities hereunder, it is recognized that members of the Audit and Risk Committee are not full-time employees of the Company and are not, and do not represent themselves to be, accountants or auditors by profession or experts in the fields of accounting or auditing including in respect of auditor independence. As such, it is not the duty or responsibility of the Audit and Risk Committee or its members to conduct "field work" or other types of auditing or accounting reviews or procedures or to set auditor independence standards, and each member of the Audit and Risk Committee shall be entitled to rely on (i) the integrity of those persons and organizations within and external to the Company from which it receives information, (ii) the accuracy of

the financial and other information provided to the Audit and Risk Committee by such persons or organizations absent actual knowledge to the contrary (which shall be promptly reported to the Board of Directors) and (iii) representations made by management as to non-audit services provided by the auditors to the Company.

The external auditors are ultimately accountable to the Board of Directors and the Audit and Risk Committee as representatives of shareholders. The Audit and Risk Committee is directly responsible (subject to the Board of Directors' approval) for the appointment, compensation, retention (including termination), scope and oversight of the work of the external auditors engaged by the Company (including for the purpose of preparing or issuing an audit report or performing other audit, review or attestation services or other work of the Company), and is also directly responsible for the resolution of any disagreements between management and any such firm regarding financial reporting.

The external auditors shall submit, at least annually, to the Company and the Audit and Risk Committee:

1. as representatives of the shareholders of the Company, a formal written statement delineating all relationships between the external auditors and the Company ("Statement as to Independence");

2. a formal written statement of the fees billed in compliance with the disclosure requirements of Form 52-110F1 of National Instrument 52-110; and

3. a report describing: the Company's internal quality-control procedures; any material issues raised by the most recent internal quality control review, or peer review, of the Company, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, respecting one or more independent audits carried out by the Company, and any steps taken to deal with any such issues.

COMPOSITION

The Audit and Risk Committee shall be comprised of three directors, the majority of whom are independent directors as defined under applicable legislation and stock exchange rules and guidelines and are appointed (and may be replaced) by the Board of Directors on the recommendation of the Governance and Nomination Committee. Determination as to whether a particular director satisfies the requirements for membership on the Audit and Risk Committee shall be made by the Board of Directors.

All members of the Audit and Risk Committee shall be financially literate within the meaning of National Instrument *52-110 – Audit Committees* ("NI 52-110") and any other securities legislation and stock exchange rules applicable to the Company, and as confirmed by the Board of Directors using its business judgement (including but not limited to be able 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), and at least one member of the Audit and Risk Committee shall have accounting or related financial expertise or sophistication as such qualifications are interpreted by the Board of Directors in light of applicable laws and stock exchange rules, including the requirement to have at least one "audit committee financial expert" as defined. The latter criteria may be satisfied by past employment experience in finance or accounting, requisite professional certification in accounting, or any other comparable experience or background which results in the individual's financial sophistication, including being or having been a chief executive officer, chief financial officer or other senior officer of an entity with financial oversight responsibilities, as well as other requirements under applicable laws and stock exchange rules.

MEMBERSHIP, MEETINGS AND QUORUM

The Audit and Risk Committee shall meet at least four times annually or more frequently if circumstances dictate, to discuss with management the annual audited financial statements and quarterly financial statements, and all other related matters. The Audit and Risk Committee may request any officer or employee of the Company or the Company's external counsel or external auditors to attend a meeting of the Audit and Risk Committee or to meet with any members of, or consultants to, the Audit and Risk Committee.

Proceedings and meetings of the Audit and Risk Committee are governed by the provisions of By-laws relating to the regulation of the meetings and proceedings of the Board of Directors as they are applicable and not inconsistent with this Charter and the other provisions adopted by the Board of Directors in regard to committee composition and organization.

The quorum at any meeting of the Audit and Risk Committee is a majority of members in office. All members of the Audit and Risk Committee should strive to be at all meetings.

DUTIES AND POWERS

To carry out its purposes, the Audit and Risk Committee shall have unrestricted access to information and shall have the following duties and powers:

1. With respect to the external auditor,

    a. to review and assess, at least annually, the performance of the external auditors, and recommend to the Board of Directors the nomination of the external auditors for appointment by the shareholders, or if required, the revocation of appointment of the external auditors;

    b. to review and approve the fees charged by the external auditors for audit services;

c. to review and pre-approve all services, including non-audit services, to be provided by the Company's external auditors to the Company or to its subsidiaries, and associated fees and to ensure that such services will not have an impact on the auditor's independence, in accordance with procedures established by the Audit and Risk Committee. The Audit and Risk Committee may delegate such authority to one or more of its members, which member(s) shall report thereon to the Audit and Risk Committee;

d. to ensure that the external auditors prepare and deliver annually a Statement as to Independence (it being understood that the external auditors are responsible for the accuracy and completeness of such statement), to discuss with the external auditors any relationships or services disclosed in the Statement as to Independence that may impact the objectivity and independence of the Company's external auditors and to recommend that the Board of Directors take appropriate action in response to the Statement as to Independence to satisfy itself of the external auditors' independence; and

e. to instruct the external auditors that the external auditors are ultimately accountable to the Audit and Risk Committee and the Board of Directors, as representatives of the shareholders;

2. With respect to financial reporting principles and policies and internal controls,

a. to advise management that they are expected to provide to the Audit and Risk Committee a timely analysis of significant financial reporting issues and practices;

b. to ensure that the external auditors prepare and deliver as applicable a detailed report covering 1) critical accounting policies and practices to be used; 2) material alternative treatments of financial information within generally accepted accounting principles that have been discussed with management, ramifications of the use of such alternative disclosures and treatments, and the treatment preferred by the external auditors; 3) other material written communications between the external auditors and management such as any management letter or schedule of unadjusted differences; and 4) such other aspects as may be required by the Audit and Risk Committee or legal or regulatory requirements;

c. to understand the scope of the annual audit of the design and operation of the Company's internal control over financial reporting and the related auditor's report;

d. to consider, review and discuss any reports or communications (and management's responses thereto) submitted to the Audit and Risk Committee by the external auditors, including reports and communications related to:

- significant finding, deficiencies and recommendations noted following the annual audit of the design and operation of internal controls over financial reporting;

- consideration of fraud in the audit of the financial statements;
- detection of illegal acts;
- the external auditors' responsibilities under generally accepted auditing standards;
- significant accounting policies;
- management judgements and accounting estimates;
- adjustments arising from the audit;
- the responsibility of the external auditors for other information in documents containing audited financial statements;
- disagreements with management;
- consultation by management with other accountants;
- major issues discussed with management prior to retention of the external auditors;
- difficulties encountered with management in performing the audit;
- the external auditors judgements about the quality of the entity's accounting principles; and
- reviews of interim financial information conducted by the external auditors.

e. to meet with management and external auditors:

- to discuss the scope, planning and staffing of the annual audit and to review and approve the audit plan;
- to discuss the audited financial statements, including the accompanying management's discussion and analysis;
- to discuss the unaudited interim quarterly financial statements, including the accompanying management's discussion and analysis;
- to discuss the appropriateness and quality of the Company's accounting principles as applied in its financial reporting;

- to discuss any significant matters arising from any audit or report or communication referred to in item 2 (iii) above, whether raised by management or the external auditors, relating to the Company's financial statements;

- to resolve disagreements between management and the external auditors regarding financial reporting;

- to review the form of opinion the external auditors propose to render to the Board of Directors and shareholders;

- to discuss significant changes to the Company's auditing and accounting principles, policies, controls, procedures and practices proposed or contemplated by the external auditors or management, and the financial impact thereof;

- to review any non-routine correspondence with regulators or governmental agencies and any employee complaints or published reports that raise material issues regarding the Company's financial statements or accounting policies;

- to review, evaluate and monitor the Company's risk management program including the revenue protection program. This function should include:

    - risk assessment;

    - quantification of exposure;

    - risk mitigation measures; and

    - risk reporting;

- to review the adequacy of the resources of the finance and accounting group, along with its development and succession plans;

- to monitor and review communications received in accordance with the Company's Internal Whistle Blowing Policy;

- following completion of the annual audit and quarterly reviews, review separately with each of management and the independent auditor any significant changes to planned procedures, any difficulties encountered during the course of the audit and reviews, including any restrictions on the scope of the work or access to required information and the cooperation that the independent auditor received during the course of the audit and review;

- to discuss with the Chief Financial Officer any matters related to the financial affairs of the Company;

- to discuss with the Company's management any significant legal matters that may have a material effect on the financial statements, the Company's compliance policies, including material notices to or inquiries received from governmental agencies;

- to periodically review with management the need for an internal audit function; and

- to review and discuss with the Company's Chief Executive Officer and Chief Financial Officer the procedure with respect to the certification of the Company's financial statements pursuant to National Instrument 52-109 *Certification of Disclosure in Issuer's Annual and Interim Filings* and any other applicable law or stock exchange rule.

3. With respect to reporting and recommendations,

   a. to prepare/review any report or other financial disclosures to be included in the Company's annual information form and management information circular;

   b. to review and recommend to the Board of Directors for approval, the interim and audited annual financial statements of the Company, management's discussion and analysis of the financial conditions and results of operations (MD&A) and the press releases related to those financial statements;

   c. to review and recommend to the Board of Directors for approval, the annual report, management's assessment on internal controls and any other like annual disclosure filings to be made by the Company under the requirements of securities laws or stock exchange rules applicable to the Company;

   d. to review and reassess the adequacy of the procedures in place for the review of the Company's public disclosure of financial information extracted or derived from the Company's financial statements, other than the public disclosure referred to in paragraph 3(ii) above;

   e. to prepare Audit and Risk Committee report(s) as required by applicable regulators; and

   f. to report its activities to the Board of Directors on a regular basis and to make such recommendations with respect to the above and other matters as the Audit and Risk Committee may deem necessary or appropriate.

4. to review, discuss with management, and approve all related party transactions;

5. to review quarterly expenses of the Chief Executive Officer;

6. to establish and reassess the adequacy of the procedures for the receipt, retention and treatment of any complaint received by the Company regarding accounting, internal accounting controls or auditing matters, including procedures for the confidential anonymous submissions by employees of concerns regarding questionable accounting or auditing matters in accordance with applicable laws and regulations; and

7. to set clear hiring policies regarding partners, employees and former partners and employees of the present and, as the case may be, former external auditor of the Company.

RESOURCES AND AUTHORITY

The Audit and Risk Committee shall have the resources and authority appropriate to discharge its responsibilities, as it shall determine, including the authority to engage external auditors for special audits, reviews and other procedures and to retain special counsel and other experts or consultants. The Audit and Risk Committee shall have the sole authority (subject to the Board of Directors' approval) to determine the terms of engagement and the extent of funding necessary (and to be provided by the Company) for payment of (a) compensation to the Company's external auditors engaged for the purpose of preparing or issuing an audit report or performing other audit, review or attest services for the Company, (b) any compensation to any advisors retained to advise the Audit and Risk Committee and (c) ordinary administrative expenses of the Audit and Risk Committee that are necessary or appropriate in carrying out its duties.

ANNUAL EVALUATION

At least annually, the Audit and Risk Committee shall, in a manner it determines to be appropriate review and assess the adequacy of its Charter and recommend to the Board of Directors any improvements to this Charter that the Audit and Risk Committee determines to be appropriate.

Approved by the Board of Directors on April 21, 2022.