



**Annual Information Form**

**For the Year  
Ended December 31, 2021**

**August 22, 2022**

## FORWARD-LOOKING STATEMENTS

This Annual Information Form contains “forward-looking statements” within the meaning of applicable Canadian securities legislation. Such forward-looking statements concern the Company’s anticipated results and developments in the Company’s operations in future periods, planned exploration and development of its properties, plans related to its business and other matters that may occur in the future. These statements relate to analyses and other information that are based on expectations of future performance, including planned work programs.

Forward-looking statements are made based upon certain assumptions and other important factors that, while considered reasonable by the Company, are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. The Company has made assumptions based on many of these factors which include, without limitation, present and future business strategies, the environment in which the Company will operate in the future including the price of gold and silver, and the anticipated cost and the ability to achieve goals.

Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ materially from those expressed or implied by the forward-looking statements, including, without limitation, the following and those disclosed in this Annual Information Form under “Description of Business – Risk Factors”:

- risks related to precious metals price fluctuations;
- risks related to fluctuations in the currency markets (particularly the Mexican peso, Canadian dollar and United States dollar);
- risks related to the inherently dangerous activity of mining, including conditions or events beyond the Company’s control, and operating or technical difficulties in mineral exploration, development and mining activities;
- uncertainty in the Company’s ability to raise financing and fund the exploration and development of its mineral properties;
- uncertainty as to actual capital costs, operating costs, production and economic returns, and uncertainty that development activities will result in profitable mining operations;
- risks related to reserves and mineral resource figures being estimates based on interpretations and assumptions which may result in less mineral production under actual conditions than is currently estimated and to diminishing quantities or grades of mineral reserves as properties are mined;
- risks related to the Company’s access to and application and commercial success of its sulphide leaching technology;
- risks related to governmental regulations and obtaining necessary licenses and permits;
- risks related to the business being subject to environmental laws and regulations which may increase costs of doing business and restrict the Company’s operations;
- risks related to mineral properties being subject to prior unregistered agreements, transfers, or claims and other defects in title;
- risks relating to inadequate insurance or inability to obtain insurance;
- risks related to all of the Company’s material properties being located in Mexico and the United States, including political, economic, social and regulatory instability and community relations requirements;
- risks related to officers and directors becoming associated with other natural resource companies which may give rise to conflicts of interests;
- uncertainty and potential adverse economic consequences arising from global supply chain issues and the impact of the war in Ukraine on global supply chains; and
- uncertainty as to the duration and impact of the novel coronavirus pandemic (“**COVID-19**”).

This list is not exhaustive of the factors that may affect our forward-looking statements. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in the forward-looking statements. The Company’s forward-looking statements are based on beliefs, expectations and opinions of management on the date that the statements are made and the Company does not assume any obligation to update forward-looking statements if circumstances or management’s beliefs, expectations or opinions change, except as required by law. For the reasons set forth above, investors should not place undue reliance on forward-looking statements.

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## GENERAL

### Date of Information

All information in this Annual Information Form is as of December 31, 2021 unless otherwise indicated and the information contained herein is current as of such date, unless otherwise stated.

### Conversion Table

All data and information is presented in metric units. In this Annual Information Form, the following conversion factors are used:

2.47 acres	=	1 hectare	0.4047 hectares	=	1 acre
3.28 feet	=	1 metre	0.3048 metres	=	1 foot
0.62 miles	=	1 kilometre	1.609 kilometres	=	1 mile
0.032 ounces (troy)	=	1 gram	31.103 grams	=	1 ounce (troy)
1.102 tons (short)	=	1 tonne	0.907 tonnes	=	1 ton
0.029 ounces/ton	=	1 gram/tonne	34.28 grams/tonne	=	1 ounce/ton
1 ppm	=	1 gram/tonne			
1 ounce/ton	=	34.286 ppm			
1%	=	10,000 ppm			

### Technical Abbreviations

Ag	silver
Au	gold
AuEq	gold equivalent
cm	centimetres
g	grams
g Ag/t	grams of silver per tonne
g AuEq/t	grams of gold equivalent per tonne
g Au/t	grams of gold per tonne
gpt	grams per tonne
ha	hectares
NI 43-101	National Instrument 43-101 – <i>Standards of Disclosure for Mineral Projects</i>
km	kilometres
km <sup>2</sup>	square kilometres
NSR	net smelter return
m	metres
opt	ounces per ton
oz	ounce(s)
RC	reverse circulation
tpd	tonnes per day
T	tonne
>	greater than

### Currency

All dollar (\$) amounts stated in this Annual Information Form refer to Canadian dollars (\$) or Cdn.\$) unless United States dollars (U.S.\$) are indicated. On December 31, 2021, the daily average exchange rate for the United States dollar in terms of Canadian dollars, as quoted by the Bank of Canada, was U.S.\$1.00 = Cdn.\$1.2678 (Cdn.\$1.00 = U.S.\$0.7888). On August 22, 2022, the daily average exchange rate for the United States dollar in terms of Canadian dollars, as quoted by the Bank of Canada, was U.S.\$1.00 = Cdn.\$1.3035 (Cdn.\$1.00 = U.S.\$0.7672).

## Purpose

This Annual Information Form is prepared in the form prescribed by National Instrument 51-102F2 of the Canadian Securities Administrators and is being voluntarily filed with the British Columbia and Alberta Securities Commissions and the TSX Venture Exchange (the “**TSX-V**”).

## Qualified Persons

Gary Parkison, CPG, Vice President Development and Alberto Galicia, P. Geo., Vice President Exploration of the Company, are each a “qualified person” within the meaning of NI 43-101 (a “**Qualified Person**”), and have reviewed and approved the scientific and technical information relating to the Company's mineral properties disclosed in this Annual Information Form. Other Qualified Persons are responsible for the technical and scientific information contained in the technical report incorporated by reference in this Annual Information Form. See “Interests of Experts – Technical Report Authors”.

## Incorporation of Documents by Reference

The information provided in this Annual Information Form is supplemented by disclosure contained in the documents listed below which are incorporated by reference into this Annual Information Form. The documents listed below are not contained within, nor attached to, this Annual Information Form but may be accessed at [www.sedar.com](http://www.sedar.com) or on the Company's website at <https://chesapeakegold.com/>.

Type of Document	Report Date / Effective Date	Date Filed / Posted	Document name which may be viewed at the SEDAR website at <a href="http://www.sedar.com">www.sedar.com</a>
Metates Sulphide Heap Leach Project Phase 1 – NI 43-101 Technical Report Preliminary Economic Assessment	Effective date: August 30, 2021	August 30, 2021	Technical report (NI 43-101) – English Qualification Certificate(s) and Consent(s)

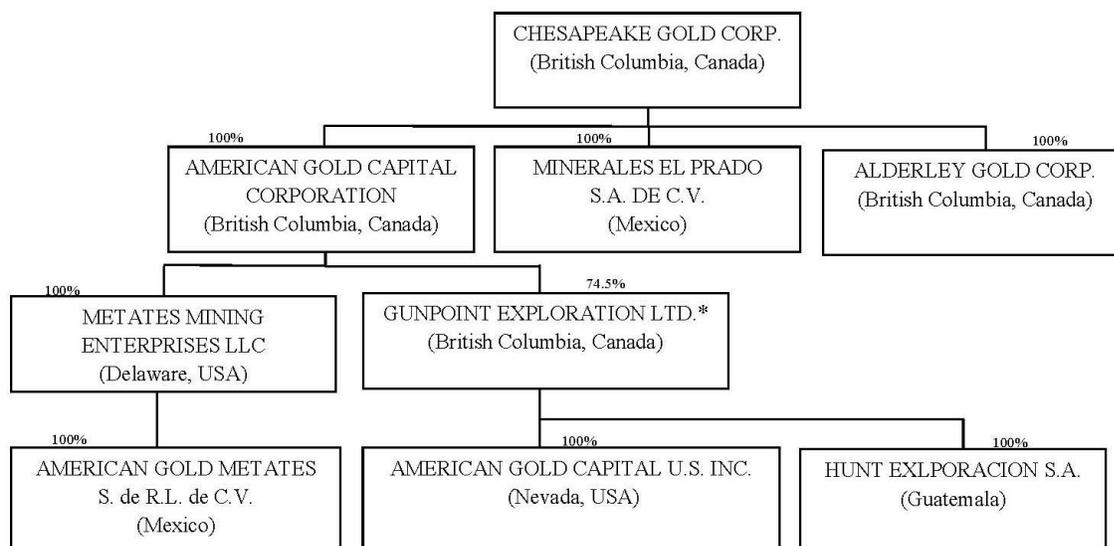
## CORPORATE STRUCTURE

### Name, Address and Incorporation

Chesapeake Gold Corp. (“**Chesapeake**” or the “**Company**”) was incorporated under the laws of British Columbia on April 18, 2002 and presently exists under the *Business Corporations Act* (British Columbia). The Company's name was changed from “Chesapeake Gold Ltd.” to “Chesapeake Gold Corp.” on May 10, 2002. At December 31, 2021, the Company's head office was located at Suite 1201 – 1166 Alberni Street, Vancouver, British Columbia V6E 3Z3. The Company's registered office is located at 19th Floor, 885 West Georgia Street, Vancouver, British Columbia V6C 3H4.

### Intercorporate Relationships

The following chart shows the intercorporate relationships among Chesapeake and its material subsidiaries as at December 31, 2021:



In the first quarter of 2022, Chesapeake’s equity interest in Gunpoint Exploration Ltd. (“**Gunpoint**”) was reduced to approximately 68% due to Gunpoint settling certain intercompany and related-party debt through share issuances and the completion of a non-brokered private placement.

Unless the context otherwise requires, references to “Chesapeake” or “the Company” in this Annual Information Form are to the Company and its subsidiaries.

## GENERAL DEVELOPMENT OF THE BUSINESS

Chesapeake is a mineral exploration and development company focusing on the discovery, acquisition and development of major gold-silver deposits in North and Central America. The Company’s primary asset is the Metates gold-silver project (“**Metates**”) located in the state of Durango, Mexico. The Metates project is one of the largest undeveloped gold and silver deposits in Mexico.

### Most Recent Three-Year History

#### 2021

##### Alderley Gold Corp. Acquisition

On December 9, 2020, the Company entered into a definitive agreement to acquire all of the issued and outstanding shares (“**Alderley Shares**”) of Alderley Gold Corp. (“**Alderley Gold**”), a private British Columbia mining technology company. Under the terms of the agreement, the Company agreed to issue 10,000,000 common shares (“**Consideration Shares**”) to the shareholders of Alderley Gold at a deemed price of \$4.50 per share, resulting in Alderley Gold shareholders holding approximately 14.2% of the outstanding shares of the Company on a fully diluted basis. The Consideration Shares were issued into escrow with release based on timed and milestone conditions over 7 years as follows:

- a. 5% released on each of the first four anniversaries of the closing date;
- b. 10% released on the earlier of (1) date of a positive feasibility study and (2) the fifth anniversary of the closing date;
- c. 30% released on the earlier of (1) duly certified commencement of construction of a mine and (2) the sixth anniversary of the closing date; and

- d. 40% released on the earlier of (1) duly certified commencement of commercial production and (2) the seventh anniversary of the closing date.

The acquisition was completed on January 19, 2021. Through the acquisition of Alderley Gold, the Company gains access to Alderley Gold's sulphide leaching technology (the "**Technology**"). The Technology oxidizes sulphide and transition ores using certain chemistry to manage pH and alkalinity thereby increasing recovery and reducing potential to turn acidic during cyanide leaching. The rights to the Technology are held under license by Alderley Gold which requires Alderley Gold to pay a 1% NSR on any future production using the Technology.

The Company has conducted preliminary indicative testing on several samples from the Metates project. Metallurgical test results were positive and indicate the process will promote the oxidation of the sulphides to a level that will allow the subsequent leaching and recovery of gold and silver. With the Technology, the development of Metates as a heap leach operation does not envision autoclave circuits leading to significantly lower capital and processing costs, stronger overall project economics and a greatly reduced environmental footprint.

### Metates

In 2021, Chesapeake completed a preliminary economic assessment for Metates. The preliminary economic assessment dated August 30, 2021 and titled "Metates Sulphide Heap Leach Project Phase 1 – NI 43-101 Technical Report Preliminary Economic Assessment" (the "**2021 PEA**") explores the viability of a two-stage heap leach process to recover gold and silver from intrusive and intrusive breccia ore types that are part of the Metates mineral resource. The 2021 PEA proposed a conventional open pit mine with the capacity to process 15,000 tpd over 31 years, with potential for expansion. The total capital cost estimate for the mine and process facility is U.S.\$359 million, which includes a contingency of U.S.\$63.5 million.

The Company's acquisition of Alderley Gold has provided the Company with an innovative sulphide leaching technology that could substantially lower capital costs at Metates and improve overall project economics, as compared to the Company's previous preliminary feasibility study dated April 29, 2016 and titled "Metates Gold-Silver Project – NI 43-101 Technical Report Updated Preliminary Feasibility Study" ("**2016 PFS**"), with its then proposed U.S.\$3.5 billion capital expenditure program. Management believes the 2021 PEA, with its low-cost scalable mine plans could be a significant development in advancing Metates towards production.

In June 2021, the Company completed its five-hole PQ diameter core drill program on its Metates project. The Company drilled approximately 2,500 m of large diameter core. In October 2021, the Company commenced an infill drill program, which was completed in early 2022, that totalled approximately 7,485 m. Based on the results of the 2021-2022 infill drill program, a revised geologic model will be generated and incorporated into a new, updated resource block model.

As part of the 2022 work plan Budget, the Company plans for 2022 are to conduct an extensive metallurgical test program on fresh samples from the new drill core.

### **2020**

In 2020, the Company incurred \$1.8 million in capitalized expenditures, including \$900,000 at Metates and \$900,000 on regional exploration including the Crisy and San Javier prospects near Metates. The Company completed four additional bulldozer trenches at Crisy totalling 350 m in length, which were excavated to the southeast of the previously reported trenches. The Company also carried out a 28 km IP-Resistivity survey at Crisy, with preliminary results showing abundant high chargeability anomalies possibly related to sulphide zones at depth. Exploration identified several distinct target areas hosting quartz veins, breccia and local stockwork along the 7 km hydrothermal system at Crisy. The Company also conducted IP surveys and mechanized trenching at the San Javier prospect.

### El Duraznito Option

In March 2020, the Company acquired an option to purchase a 100% interest in one concession at the El Duraznito gold-silver project in Durango, Mexico. The Company is required to pay U.S.\$77,500 over three years to the owner

to earn a 60% interest. This interest can be increased to 80% following the completion of a feasibility study and an additional payment of U.S.\$100,000. Upon commencement of mine construction, the Company must pay a final U.S.\$150,000 to acquire the remaining 20% interest to hold a 100% interest in the mineral concession.

#### Non-Brokered Private Placement

On August 18, 2020, the Company completed a non-brokered private placement of 4,000,000 common shares at a price of \$5.00 per share for gross proceeds of \$20,000,000. Net proceeds from the private placement are being used for drilling at Metates, metallurgical test work, ongoing regional exploration and for general working capital.

#### **2019**

In 2019, Chesapeake continued its regional exploration program on the eastern flank of Metates and identified three additional projects: Crisy, San Javier and Cerro Pelon. These projects are hosted with different regional structural settings associated with intermediate composition intrusive rocks. The Company assembled a 10,000 ha land package covering Crisy, Cerro Pelon and San Javier. To advance the exploration program at Crisy, the Company constructed a five km access road. A bulldozer trenching program undertaken at Crisy spaced at 80 m intervals cut across the prevailing NW-SE strike of the mineralization over a ridge at different elevations. Along the trend, numerous sulfide bearing quartz breccias, veins and stockwork zones with disseminated gold and silver mineralization were mapped and sampled. During the year ending December 31, 2019, the Company incurred \$699,700 on regional exploration.

#### Acquisition of Metates Royalty

On August 8, 2019, Chesapeake exercised its option to re-purchase 1% (two thirds) of a 1.5% net smelter returns royalty (“**Metates NSR**”) registered against the Metates concessions. The Metates NSR was purchased from Wheaton Precious Metals (Cayman) Co., a subsidiary of Wheaton Precious Metals Corp., (“**WPM**”) for U.S.\$9.0 million, which continues to hold the remaining 0.5% Metates NSR.

The Company has also entered into a right of first refusal agreement with WPM whereby the Company has granted a right of first refusal on any future silver stream or royalty for which the Company receives and accepts an offer to purchase, on the same terms and conditions as the third party’s offer.

#### Bought-Deal Private Placement and Non-Brokered Private Placement

On August 28, 2019, the Company completed a bought-deal private placement and a concurrent non-brokered private placement for aggregate gross proceeds of \$15,003,000. Through the bought-deal private placement, underwritten by Mackie Research Capital Corporation as sole underwriter (the “**Underwriter**”), the Company issued 5,334,000 common shares at a price of \$2.25 per share for gross proceeds of \$12,001,500. The Underwriter received a 4% cash commission of the gross proceeds of the private placement. Through the non-brokered private placement, the Company issued 1,334,000 common shares at a price of \$2.25 per share for gross proceeds of \$3,001,500. Proceeds from the offerings are being used for working capital and general corporate purposes.

#### **Significant Acquisitions**

During the financial year ended December 31, 2021, the Company completed the acquisition of Alderley Gold as further described above.

## DESCRIPTION OF BUSINESS

### General

#### *Business of the Company*

Chesapeake is a precious metals exploration company with significant gold and silver assets in Mexico. Chesapeake's major project is its 100% owned Metates gold-silver deposit located in the state of Durango, Mexico. Metates is one of the largest undeveloped in-situ gold and silver projects in Mexico. The Company also has a portfolio of mineral exploration properties in Mexico comprising 118,350 ha in the states of Durango, Sinaloa, Oaxaca and Veracruz.

As at the date of this Annual Information Form, the Company also owns approximately 68% of Gunpoint, a British Columbia company publicly listed on the TSX-V, which owns the Talapoosa gold project in Nevada and the Cerro Minas project in Mexico. Gunpoint sold its other two Mexican properties, La Gitana and Pena Blanca, in 2021.

In January 2021, the Company acquired 100% of Alderley Gold, which provides the Company access to a sulphide leaching technology.

#### *Specialized Skill and Knowledge*

Most aspects of the Company's business require specialized skills and knowledge. Such skills and knowledge include the areas of geology, exploration, development, technology, financing and accounting. The Company has executive officers and employees with extensive experience in geology, exploration and mine development in Mexico and other parts of North, Central and South America. As well, the Company's executive officers, directors and employees have significant experience in mining, processing technologies, international finance, mergers and acquisitions and accounting.

#### *Competitive Conditions*

The Company competes with major mining companies and other smaller natural resource companies in the acquisition, exploration, development and financing of new properties and projects in Mexico. Many of these companies are more experienced, larger and have greater financial resources for, among other things, financing and the recruitment and retention of qualified personnel. See "Risk Factors—Competitive Conditions".

#### *Intangible Properties*

With the recent acquisition of Alderley Gold, the Company has access to new sulphide leaching technology that uses certain chemistry to manage pH and alkalinity to increase recovery and to reduce potential acidity during cyanide leaching. If the technology is used in conjunction with the Metates project, as outlined in the 2021 PEA, the Company could see significantly lower capital and processing costs leading to stronger overall project economics and a greatly reduced environmental footprint.

#### *Environmental Protection*

The Company's operations are subject to environmental regulations promulgated by government agencies from time to time. The management of environmental issues will need to be a substantial component of any type of commercial operation at Metates owing to varying climatic conditions and the high sulphide content in the deposit.

#### *Employees*

During the financial year ended December 31, 2021, Chesapeake and its subsidiaries had an average of 28 employees and independent contractors. All management functions of the Company are performed by the executive officers of the Company, either directly or through their consulting companies.

### ***Foreign Operations***

The Company's activities are currently focused on Metates located in the state of Durango, Mexico which exposes it to various levels of political, economic and other risks and uncertainties associated with operating in a foreign jurisdiction. As a developing economy, operating in Mexico has certain risks, including changes to or invalidation of government mining regulations; expropriation or revocation of land or property rights; changes in foreign ownership rights; changes in foreign taxation rates; security issues; corruption; uncertain political climate; terrorist actions or war; and lack of a stable economic climate. See "Risk Factors–Foreign Operations".

### ***Social or Environmental Policies***

The Company is committed to ensuring that its activities are consistent with the Company's long-term goal of gaining community support for its operations. The Company's corporate performance is based on integrity, openness, and respect for employees, the communities in the areas of its operations, and supporting institutions.

In October 2012, Chesapeake signed a six-year agreement with the Community of San Juan de Camarones ("SJC") which provided the Company with surface access to continue the exploration and development of Metates. The annual payments to SJC were U.S.\$133,325 and were maintained until 2019. In addition, the Company agreed to a community benefit commitment totalling \$2.7 million Mexican pesos (approximately \$200,000) over the term of the agreement. In October 2019, SJC agreed to extend the agreement for the same annual flat payment until 2026 in return for Chesapeake committing to \$30,000 in road and power infrastructure improvements in 2019 and 2020.

### ***Temporary Suspension of Mining Activities***

On March 30, 2020, the Mexican General Health Council declared a national health emergency and the Federal Health Ministry of Mexico issued extraordinary measures due to the COVID-19 pandemic. Numerous health precautions were decreed, including the suspension of non-essential businesses, with only essential services to remain open. Mining did not qualify as an essential service so the Company suspended its operations in Mexico as of April 1, 2020 as mandated by the Mexican government. On April 21, 2020, these measures were extended until May 30, 2020. On May 14, 2020, the Federal Health Ministry of Mexico issued a new resolution providing for the phased re-start of economic activities in Mexico. Mining was then designated as an essential industry and, accordingly, the Company could re-start operations on June 1, 2020. From May 18 to June 1, 2020, the Company was required to implement workplace sanitary safety guidelines issued by the Health Ministry of Mexico. In municipalities where there were no COVID-19 cases and which did not border municipalities with COVID-19 cases, operations were permitted to re-start earlier as of May 18, 2020. The Company resumed operations the first week of June 2020 in compliance with workplace sanitary safety guidelines. Full-level operations continue unhindered to date.

### **Risk Factors**

The following factors are those which are the most applicable to the Company. The discussion which follows is not inclusive of all potential risks. Risk management is an ongoing exercise upon which the Company spends a substantial amount of time. While it is not possible to eliminate all of the risks inherent to the mining business, the Company strives to manage these risks, to the greatest extent possible, to ensure that its assets are protected.

### ***Precious Metals Price Fluctuations***

The profitability of any future precious metal operations in which the Company has an interest will be significantly affected by changes in the market prices of precious metals. Prices for precious metals fluctuate on a daily basis, have historically been subject to wide fluctuations and are affected by numerous factors beyond the control of the Company such as the level of interest rates, the rate of inflation, the rates of investment return in broad financial markets, central bank transactions, world supply of the precious metals, foreign currency exchange rates, international investments, monetary systems, speculative activities, international economic conditions and political developments. The exact effect of these factors cannot be accurately predicted, but the combination of any or all of these factors may result in the Company not receiving adequate returns on invested capital or the Company's

investments in its mineral properties not retaining their respective values. Declining market prices for precious metals could materially adversely affect the Company's future operations and profitability.

### ***Foreign Exchange Rate Fluctuations***

The Company raises its funds through equity issuances which are priced in Canadian dollars. The Company maintains the majority of its cash and cash equivalents in Canadian dollars, United States dollars and Mexican pesos. By virtue of its international operations, the Company incurs costs and expenses in foreign currencies other than the Canadian dollar. The exchange rates covering such currencies, including the United States dollar, are subject to fluctuation which gives rise to foreign currency exposure, either favourable or unfavourable. The Company does not hedge the United States dollar against the Canadian dollar. The Company does not undertake steps to mitigate transactional volatility in Mexican pesos.

### ***Operating Hazards and Risks***

Mining operations generally involve a high degree of risk, which even a combination of experience, knowledge and careful evaluation may not be able to overcome. These risks include, but are not limited to, the following: environmental hazards, industrial accidents, third party accidents, unusual or unexpected geological structures or formations, fires, power outages, labour disruptions, work force health related issues due to pandemics, floods, explosions, cave-ins, land-slides, acts of God, periodic interruptions due to inclement or hazardous weather conditions, earthquakes, war, rebellion, revolution, delays in transportation, inaccessibility to property, restrictions of courts and/or government authorities, other restrictive matters beyond the reasonable control of the Company, and the inability to obtain suitable or adequate machinery, equipment or labour and other risks involved in mineral property exploration and development.

Operations in which the Company has a direct or indirect interest will be subject to all the hazards and risks normally incidental to exploration and development of precious metals, any of which could result in work stoppages, resultant losses, asset write downs, damage to or destruction of equipment, damage to life and property, possible property abandonment, environmental damage and possible legal liability for any or all damages. The Company may become subject to liability for pollution or hazards against which it cannot insure or against which it may elect not to insure. Any future settlement of such liabilities may have a material adverse effect on the Company's financial position.

The Company's liability insurance may not provide sufficient coverage for losses related to these or other hazards. Insurance against certain risks, including certain liabilities for environmental pollution, may not be available to the Company or to other companies within the industry at reasonable terms or at all. In addition, the Company's insurance coverage may not continue to be available at economically feasible premiums, or at all. Any such event could have a material adverse effect on the Company's business.

### ***Exploration and Development***

There is no assurance given by the Company that its exploration and development programs and properties will result in the discovery, development or production of a commercially economically viable ore body.

The business of exploration for minerals and mining involves a high degree of risk. Few properties that are explored are ultimately developed into producing mines.

The economics of developing silver, gold and other mineral properties are affected by many factors including capital and operating costs, variations of the tonnage and grade of ore mined, estimated metal recoveries, fluctuating mineral markets, and such other factors as government regulations, including regulations relating to royalties, allowable production, importing and exporting of minerals and environmental protection. Depending on the prices of silver, gold or other minerals produced, the Company may determine that it is impractical to commence commercial production. Substantial expenditures are required to discover an ore-body, to establish reserves, to identify the appropriate metallurgical processes to extract metal from ore, and to develop the mining and processing facilities and infrastructure. The marketability of any minerals acquired or discovered may be affected by numerous factors which are beyond the Company's control and which cannot be accurately foreseen or predicted, such as

market fluctuations, conditions for precious metals, and such other factors as government regulations, including regulations relating to royalties, allowable production, importing and exporting minerals and environmental protection. In order to commence exploitation of certain properties presently held under exploration concessions, it is necessary for the Company to apply for an exploitation concession. There can be no guarantee that such a concession will be granted, or if granted, will be maintained. Unsuccessful exploration or development programs could have a material adverse impact on the Company's future operations and profitability.

### ***Calculation of Resources and Precious Metal Recoveries***

There is a degree of uncertainty attributable to the calculation and estimates of resources and their corresponding metal grades to be mined and recovered. Until resources are actually mined and processed, the quantities of mineralization and metal grades must be considered as estimates only. Any material change in the quantity of mineral resources, grades and recoveries may affect the future economic viability of the Company's properties.

### ***Acquisition Strategy***

As part of the Company's business strategy, it has sought and will continue to seek new mining and development opportunities in the mining industry. In pursuit of such opportunities, it may fail to select appropriate acquisition candidates, negotiate appropriate acquisition terms, conduct sufficient due diligence to determine all related liabilities or to negotiate favourable financing terms. The Company may encounter difficulties in transitioning the business, including issues with the integration of the acquired businesses or its personnel into the Company. The Company cannot assure that it can complete any acquisition or business arrangement that it pursues, or is pursuing, on favourable terms, or that any acquisitions or business arrangements completed will ultimately benefit its business.

### ***Competitive Conditions***

Significant competition exists for natural resource acquisition opportunities. As a result of this competition, some of which is with large, well established mining companies with substantial capabilities and significant financial and technical resources, the Company may be unable to either compete for or acquire rights to exploit additional attractive mining properties on terms it considers acceptable. Accordingly, there can be no assurance that the Company will be able to acquire any interest in projects that would yield resources, reserves or results for commercial mining operations.

### ***Foreign Operations***

The Company's operations are currently conducted through subsidiaries principally in Mexico and, as such, its operations are exposed to various levels of political, economic and other risks and uncertainties which could result in work stoppages, blockades of the Company's mining operations and appropriation of assets. Some of the Company's operations are located in areas where Mexican drug cartels operate. These risks and uncertainties vary from region to region and include, but are not limited to, terrorism; hostage taking; local drug gang activities; military repression; expropriation; extreme fluctuations in currency exchange rates; high rates of inflation; labour unrest; the risks of war or civil unrest; renegotiation or nullification of existing concessions, licenses, permits and contracts; illegal mining; changes in taxation policies; restrictions on foreign exchange and repatriation; and changing political conditions, currency controls and governmental regulations that favour or require the awarding of contracts to local contractors or require foreign contractors to employ citizens of, or purchase supplies from, a particular jurisdiction.

Although the Company strives to maintain good relations with the local community in Mexico by providing employment opportunities and social services, local opposition to mine development projects could arise in Mexico, and such opposition could be very disruptive. There can be no assurance that such local opposition will not arise with respect to the Company's foreign operations. If the Company were to experience resistance or unrest in connection with its operations, it could have a material adverse effect on its operations.

To the extent the Company acquires mineral properties in jurisdictions other than Mexico, it may be subject to similar and additional risks with respect to its operations in those jurisdictions.

### ***Government Regulation***

The Company's operations, exploration and development activities are subject to extensive foreign federal, state and local laws and regulations governing such matters as environmental protection, management and use of toxic substances and explosives, management of natural resources, health, exploration and development of mines, production and post-closure reclamation, safety and labour, mining law reform, price controls, import and export laws, taxation, maintenance of claims, tenure, government royalties and expropriation of property. The activities of the Company require licenses and permits from various governmental authorities. There is no assurance that future changes in such regulation or licensing, if any, will not adversely affect the Company's operations

The costs associated with compliance with these laws and regulations are substantial and possible future laws and regulations, changes to existing laws and regulations and more stringent enforcement of current laws and regulations by governmental authorities could cause additional expenses, capital expenditures, restrictions on or suspensions of the Company's operations and delays in the development of its properties. Moreover, these laws and regulations may allow governmental authorities and private parties to bring lawsuits based upon damages to property and injury to persons resulting from the environmental, health and safety practices of the Company's past and current operations, or possibly even those actions of parties from whom the Company acquired its properties, and could lead to the imposition of substantial fines, penalties or other civil or criminal sanctions. The Company retains competent and well-trained individuals and consultants in jurisdictions in which it does business. However, even with the application of considerable skill, the Company may inadvertently fail to comply with certain laws, rules or regulations. Such events can lead to financial restatements, fines, penalties, and other material negative impacts on the Company.

### ***Obtaining and Renewing of Government Permits***

In the ordinary course of business, the Company is required to obtain and renew government permits for the operation and expansion of existing operations or for the development, construction and commencement of new operations. Obtaining or renewing the necessary governmental permits is a complex and time-consuming process involving numerous jurisdictions and possibly involving public hearings and costly undertakings on the Company's part. The duration and success of the Company's efforts to obtain and renew permits are contingent upon many variables not within its control including the interpretation of applicable requirements implemented by the permitting authority. The Company may not be able to obtain or renew permits that are necessary to its operations, or the cost to obtain or renew permits may exceed what the Company believes it can realize or recover from a given property once in production. Any unexpected delays or costs associated with the permitting process could delay the development or impede the operation of a mine, which could adversely impact the Company's operations and profitability.

### ***Environmental Factors***

All phases of the Company's operations are subject to environmental regulation in the various jurisdictions in which it operates. Environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. There is no assurance that any future changes in environmental regulation will not adversely affect the Company's operations. The costs of compliance with changes in government regulations have the potential to reduce the profitability of future operations. Environmental hazards that may have been caused by previous or existing owners or operators may exist on the Company's mineral properties, but are unknown to the Company at the present.

### ***Title to Assets***

Although the Company has received title opinions for properties in which it has a material interest, there is no guarantee that title to such properties will not be challenged or impugned. While the mining claims in which the Company has, or has the right to acquire, an interest have been surveyed, the precise location of the boundaries of the claims and ownership of mineral rights in specific tracts of land comprising the claims may be challenged. The Company's mineral concessions may be subject to prior unregistered agreements or transfers or native land claims and title may be affected by unidentified or unknown defects. The Company has conducted as thorough an

investigation as possible on the title of properties that it has acquired or will be acquiring to be certain that there are no other claims or agreements that could affect its title to the concessions or claims. If title to the Company's properties is disputed it may result in the Company paying substantial costs to settle the dispute or clear title and could result in the loss of the property, which events may affect the economic viability of the Company.

### ***Uncertainty of Funding***

The Company has limited financial resources, and the mineral concessions in which the Company has an interest require financial expenditures to be made by the Company. There can be no assurance that adequate funding will be available to the Company so as to maintain its interests. Further exploration work and development of the properties in which the Company has an interest depend upon the Company's ability to obtain financing through joint venturing of projects, debt financing or equity financing or other means. Failure to obtain financing on a timely basis could cause the Company to forfeit all or parts of its interests in mineral properties or reduce or terminate its operations.

### ***Mining Operations***

The capital costs required by the Company's projects may be significantly higher than anticipated. Capital and operating costs, production and economic returns, and other estimates contained in the Company's 2021 PEA for the Metates project may differ significantly from those estimates provided for in future studies and from estimates forming the basis of future management guidance and, in the event that the Company decides to initiate mine development and construction, there can be no assurance that the Company's actual capital and operating costs will not be materially higher than presently anticipated. In addition, delays to construction and exploration schedules may negatively impact the net present value and internal rates of return of the Company's mineral properties as set forth in the applicable report.

### ***Technology***

The Company has relied on its access to innovative Technology, through its acquisition of Alderley Gold, to formulate its mine development program. In particular, the Metates project's mine plan, production metrics and capital and operating costs as detailed in the 2021 PEA are based on the Company's access to the sulphide leaching Technology, together with key personnel that are knowledgeable and have the expertise to develop, and improve upon, the Technology. There is no assurance that the Technology will yield satisfactory results at Metates or any of the Company's other mineral properties. There is no assurance that use of the Technology will result in a successful development of Metates. The Technology is subject to a license agreement under which Alderley Gold is licensee. There is no guarantee that the Company will have continued access to the Technology in the event that the license agreement is terminated. Negotiation of a new license may not be possible or economically viable. If the Technology becomes unavailable to the Company, there can be no assurance that the exploitation or development of the Company's projects will proceed on a timely basis, if at all.

### ***Employee Recruitment and Retention***

Recruiting and retaining qualified personnel is critical to the Company's success. The Company is dependent on the services of key executives and other highly skilled and experienced executives and personnel focused on managing the Company's interests. The number of persons skilled in acquisition, exploration, development and operation of mining properties are limited and competition exists to attract such persons. As the Company's business activity grows, the Company will require additional key financial, administrative and mining personnel as well as additional operations staff. If the Company is unable to attract, hire and retain qualified personnel, the efficiency of its operations could be impaired, which could have an adverse impact on the Company's results of operations and financial condition.

### ***Infrastructure***

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. The lack of availability on acceptable terms or the delay in the availability of any one or more of these items could

prevent or delay exploitation or development of the Company's projects. If adequate infrastructure is not available in a timely manner, there can be no assurance that the exploitation or development of the Company's projects will be commenced or completed on a timely basis, if at all; or the construction costs and ongoing operating costs associated with the exploitation and/or development of the Company's advanced projects will not be higher than anticipated. In addition, unusual or infrequent weather phenomena, sabotage, government or other interference in the maintenance or provision of such infrastructure could adversely affect the Company's operations and profitability.

### ***Fluctuations in the Price of Consumed Commodities***

Prices and availability of commodities consumed or used in connection with exploration, development and mining, such as natural gas, diesel, oil, electricity, cyanide and other reagents are subject to significant fluctuations due to supply chain issues and geopolitical factors including the recent war in Ukraine, which affect the costs of the Company's current and future operations. These fluctuations can be unpredictable, can occur over short periods of time and may have a materially adverse impact on the Company's future operating costs or the future timing and costs of various projects. The Company's general policy is not to hedge its exposure to changes in prices of the commodities it uses in its business.

### ***Inflationary Pressures and Global Supply Chain Delays***

The Company sources certain equipment and component parts from a variety of suppliers in Canada, the U.S. and internationally. The Company's business could be adversely affected by increased costs due to inflationary pressures, equipment limitations or other cost escalations. In addition, supply chain restrictions and disruptions could have a negative impact on the Company's ability to procure equipment in order to continue its drilling and exploration programs. The Company's inability to control these costs or to obtain necessary equipment on a timely basis may impact its operations and could negatively impact the Company.

### ***Potential Conflicts of Interest***

The directors and officers of the Company may and in certain cases do serve as directors and/or officers of other public and private companies, and may devote a portion of their time to manage other business interests. This may result in certain conflicts of interest. To the extent that such other companies may participate in ventures in which the Company is also participating, such directors and officers of the Company may have a conflict of interest in negotiating and reaching an agreement with respect to the extent of each company's participation. The laws of British Columbia, Canada, require the directors and officers to act honestly, in good faith, and in the best interests of the Company and its shareholders. However, in conflict of interest situations, directors and officers of the Company may owe the same duty to another company and will need to balance the competing obligations and liabilities of their actions.

There is no assurance that the needs of the Company will receive priority in all cases. From time to time, several companies may participate together in the acquisition, exploration and development of natural resource properties, thereby allowing these companies to: (i) participate in larger properties and programs; (ii) acquire an interest in a greater number of properties and programs; and (iii) reduce their financial exposure to any one property or program. A particular company may assign, at its cost, all or a portion of its interests in a particular program to another affiliated company due to the financial position of the company making the assignment. In determining whether or not the Company will participate in a particular program and the interest therein to be acquired by it, it is expected that the directors and officers of the Company will primarily consider the degree of risk to which the Company may be exposed and its financial position at that time.

### ***Absolute Assurance on Financial Statements***

The Company prepares its financial statements in accordance with accounting policies and methods prescribed by Canadian generally accepted accounting principles. In the preparation of financial statements, management may need to rely upon assumptions, make estimates or use their best judgment in determining the financial condition of the Company. In order to have a reasonable level of assurance that financial transactions are properly authorized, assets are safeguarded against unauthorized or improper use and transactions are properly recorded and reported, the Company has implemented and continues to analyze its internal control systems for financial reporting. Although

the Company believes that its financial reports and financial statements are prepared with reasonable safeguards to ensure reliability, completeness, accuracy and validity, the Company cannot provide absolute assurance in that regard.

### ***General Economic Conditions***

The unprecedented events in global financial markets during the last twelve years, including most particularly in the last 24 months due to the COVID-19 pandemic and more recently the war in Ukraine, have had a profound effect on the global economy. Many industries, including the gold and silver mining industry, are affected by these market conditions. Some of the key effects include contraction in credit markets resulting in a widening of credit risk, devaluations and high volatility in global equity, commodity, foreign exchange and precious metal markets, and a lack of market liquidity together with global government intervention in markets and monetary stimulus measures to calm markets. A slowdown in the financial markets or other economic conditions, including but not limited to, consumer confidence and spending, inflation, employment rates, business conditions, inflation, fuel and energy costs, consumer debt levels, corporate debt levels, the possible lack of available credit, the state of the financial markets, rising interest rates, and tax rates may adversely affect the Company's growth and profitability.

### ***Impact of COVID-19 Pandemic***

The Company's business could be significantly adversely affected by the effects of a widespread global outbreak of contagious disease, including the recent outbreak of respiratory illness caused by COVID-19. The Company cannot accurately predict the impact COVID-19 will have on third parties' abilities to meet their obligations with the Company, including due to uncertainties relating to the ultimate geographic spread of the virus, the severity of the disease, the duration of the outbreak, and the length of travel and quarantine restrictions imposed or re-imposed by governments of affected countries. In particular, the continued spread of COVID-19 globally and the emergence of "variants of concern" of COVID-19 could materially and adversely impact the Company's business including without limitation, employee health, limitations on travel, the availability of industry experts and personnel, restrictions to planned drill programs, mining and processing operations shutdowns, and other factors that will depend on future developments beyond the Company's control. In addition, a significant outbreak of contagious diseases in the human population could result in a widespread health crisis that could adversely affect the economies and financial markets of many countries (including those in which the Company operates), resulting in an economic downturn that could negatively impact the Company's operating results and ability to raise capital.

### ***Passive Foreign Investment Company Consequences***

The Company has not made a determination as to whether it is considered a "passive foreign investment company" (a "PFIC") as such term is defined in the U.S. Internal Revenue Code of 1986, as amended (the "Code"), for U.S. federal income tax purposes for the current tax year and any prior tax years. A non-U.S. corporation generally will be considered a PFIC for any taxable year if either (1) at least 75% of its gross income is passive income or (2) at least 50% of the value of its assets (based on an average of the quarterly values of the assets during a taxable year) is attributable to assets that produce or are held for the production of passive income.

In general, if the Company is or becomes a PFIC, any gain recognized on the sale of securities and any "excess distributions" (as specifically defined in the Code) paid on the securities must be ratably allocated to each day in a U.S. taxpayer's holding period for the securities. The amount of any such gain or excess distribution allocated to prior years of such U.S. taxpayer's holding period for the securities generally will be subject to U.S. federal income tax at the highest tax applicable to ordinary income in each such prior year, and the U.S. taxpayer will be required to pay interest on the resulting tax liability for each such prior year, calculated as if such tax liability had been due in each such prior year.

### ***Substantial Volatility of Share Price***

In recent years, the securities markets in the United States and Canada for precious metals companies have experienced a high level of price and volume volatility, and the securities of many mineral exploration companies have experienced wide fluctuations in price which have not necessarily been related to the operating performance, underlying asset values or prospects of such companies. The price of the Company's Common Shares (as defined

under “Capital Structure”) is also likely to be significantly affected by short-term changes in mineral prices or in the Company’s financial condition or results of operations as reflected in its quarterly financial reports. Other factors unrelated to the Company’s performance that may have an effect on the price of Common Shares include the following: the extent of analytical coverage available to investors concerning the Company’s business may be limited if investment banks with research capabilities do not follow the Company’s securities; lessening in trading volume and general market interest in the Company’s securities may affect an investor’s ability to trade significant numbers of the Common Shares; and the size of the Company’s public float may limit the ability of some institutions to invest in the Company’s securities.

### ***Potential Dilution of Present and Prospective Shareholdings***

In order to finance future operations and development efforts, the Company may raise funds through the issue of Common Shares or the issue of securities convertible into Common Shares. The Company cannot predict the size of future issues of Common Shares or the issue of securities convertible into Common Shares or the effect, if any, that future issues and sales of Common Shares will have on the market price of the Common Shares. Any transaction involving the issue of Common Shares, or securities convertible into Common Shares, could result in dilution, possibly substantial, to present and prospective holders of Common Shares.

### ***Lack of Dividends***

The Company has not paid dividends on the Common Shares to date. The Company currently plans to retain all future earnings and other cash resources, if any, for the future operation and development of its business. Payment of any future dividends, if any, will be at the discretion of the Board of Directors after taking into account many factors, including the Company’s operating results, financial condition, and current and anticipated cash needs.

### ***Financial Instruments***

From time to time, the Company may use and has used certain financial instruments for investment purposes such as asset-backed commercial paper or to manage the risks associated with changes in gold and silver prices, interest rates and foreign currency exchange rates. The use of financial instruments involves certain inherent risks including, among other things: (i) credit risk, the risk of default on amounts owing to the Company by the counterparties with which the Company has entered into such transaction; (ii) market liquidity risk, the risk that the Company has entered into a position that cannot be closed out quickly, either by liquidating such financial instrument or by establishing an offsetting position; (iii) unrealized mark-to-market risk, the risk that, in respect of certain financial instruments, an adverse change in market prices for commodities, currencies or interest rates will result in the Company incurring an unrealized mark-to-market loss in respect of such derivative products.

## **DESCRIPTION OF MINERAL PROPERTIES**

### **Metates Project**

The executive summary of the Metates Project attached hereto as Appendix A is extracted from the “Metates Sulphide Heap Leach Project Phase 1 – NI 43-101 Technical Report Preliminary Economic Assessment” (the “**2021 PEA**”) dated effective August 30, 2021 and prepared for the Company by M3 Engineering and Technology Corp. and other consultants (see “Interests of Experts”). The authors of the 2021 PEA are independent Qualified Persons as defined in NI 43-101. The detailed disclosure on the Metates Project in the 2021 PEA is incorporated into this Annual Information Form by reference and the summary attached as Appendix A is subject to all the assumptions, qualifications and procedures set out in the 2021 PEA. A copy of the 2021 PEA was filed by the Company on August 30, 2021 on SEDAR and may be accessed under the Company’s profile at [www.sedar.com](http://www.sedar.com).

Highlights of the Phase 1 mine plan (“**Phase 1**”) from the 2021 PEA are as follows:

- Pre-tax net present value of U.S.\$1.14 billion and 35% internal rate of return at U.S.\$1,600 per oz gold and U.S.\$22 per oz silver at a 5% discount rate, over a 31-year mine life (“**LOM**”).

- Average annual production of over 110,000 oz of gold and 2.5 million oz of silver during the first 15 years. All-in sustaining cost of U.S.\$748 per gold oz with a LOM low stripping ratio of 2.2:1.
- Average annual pre-tax free cash flow of U.S.\$113 million in the first 15 years, and cumulatively U.S.\$2.7 billion LOM.
- The 2021 PEA contemplates an initial capital cost of U.S.\$359 million, including U.S.\$64 million in contingency costs. Payback 2.5 years.
- Phase 1 15,000 tpd mine is expandable to 30,000 tpd, to bring production forward and reduce the 31-year LOM.
- The 2021 PEA only focused on the higher-grade intrusive hosted portion of the Metates orebody, which represents less than 20% of the total mineral resource.

The 2021 PEA forecasts early cash flow generation which supports future expansions that can be developed by the Company. The site's simplified process flowsheet, compact footprint and proximity to key infrastructure contribute to the project's low initial capital cost.

#### Additional Information on Metates

On August 8, 2019, Chesapeake exercised its option to re-purchase 1% (two thirds) of a 1.5% net smelter returns royalty ("Metates NSR") on Metates. The 1% Metates NSR was purchased from Wheaton Precious Metals (Cayman) Co., a subsidiary of Wheaton Precious Metals Corp., for US\$9.0 million, which continues to hold the remaining 0.5% Metates NSR.

The Company completed a five-hole PQ diameter core drill program in June 2021 for metallurgical test work, which returned on average, a 19% increase in grade compared to the 2016 block model predicted grades. In November 2021, two diamond drill rigs commenced an infill program that drilled both up and down dip as well as along strike between the June 2021 holes. In total, 18 holes were completed during the 2021-2022 infill drill campaign which totalled approximately 7,485 m. The assay intervals for these holes also confirmed higher AuEq grade than corresponding block estimates in the current resource block model. Based on the results of the infill program, a revised geologic model will be generated and incorporated into a new, updated resource block model.

Select 2021 drill core samples from Metates for metallurgical testwork are currently in a Vancouver lab and 16 columns are oxidizing. Following oxidation, conventional cyanide leaching will be undertaken for precious metal recovery. The metallurgical testwork will be in 2 phases. Phase 1 will concentrate on composite sample tests to determine the best parameters for processing the Metates mineralisation. Phase 2 will include individual variability testing to develop a detailed geo-metallurgical model. Results from Phase 1 are to be incorporated into a prefeasibility study, expected to be delivered in late 2022.

#### **Regional Exploration**

The Company continues to explore for additional gold and silver prospects in northwestern Mexico. The Company has an on-going program of systematic regional exploration focused within a 100 km radius of Metates in the states of Sinaloa and Durango, Mexico. To date, six precious and base metal projects with district scale potential have been identified – Yarely, Lucy, Nicole, Crisy, San Javier and Cerro Pelon. The projects are located along a mineralized corridor that parallels the Pacific coast and lies along the western margin of the Sierra Madre Occidental. Excellent infrastructure exists in the region with close proximity to a paved highway, power grid and a new natural gas pipeline constructed by the Mexican government. These exploration properties in Mexico are not considered by the Company to be material for the purposes of this Annual Information Form. **The properties are presently in the exploration stage and are without a known body of commercial ore and/or mineral reserves.**

## ***Yarely Project***

During 2017, on-going regional reconnaissance of the Yarely project identified a large area of extensive alteration hosting several mineralized hydrothermal systems. Yarely is located about 70 km west of Metates. A systematic program of geological mapping, trenching and channel sampling defined three multi-phase mineralized zones (North, Central and South) within an open corridor over 4 km long and up to 2 km wide. Yarely North hosts a swarm of north-south trending high grade quartz carbonate epithermal veins hosted within coarse and medium grained sandstone. Chesapeake has traced 12 veins ranging up to 11 m in width each with an average strike length of 650 m. Surface and underground channel samples returned values of 2 m of 19.5 gpt gold and 505 gpt silver, 11 m of 1.1 gpt gold and 42 gpt silver, 8 m of 1.6 gpt gold and 33 gpt silver and 3 m of 1.1 gpt gold and 805 gpt silver.

Yarely Central contains several wide zones of quartz stockwork and disseminated polymetallic mineralization hosted in highly altered sedimentary rocks. The area hosts four subparallel north-northwest trending stockwork zones over one km in length. These structural corridors bracket a strong northeast trending IP chargeability anomaly several km long and one km wide. Preliminary sampling within breccias, veins and disseminations at Yarely South discovered silver, copper and molybdenum mineralization with channel samples up to 83 gpt silver, 2.9% copper and 0.12% molybdenum. Three diamond drill holes tested Yarely Central in 2017.

In 2018, a drill program followed up targeting the large and intense chargeability anomaly at Loretos which is contiguous to the west of Yarely Central and coincident with a north-northwest trending “V” shaped IP anomaly. The west side of the “V” anomaly is over 3 km long and 1 km wide. Mineralization at Loretos is hosted within sandstone, conglomerate and minor limestone and consists of numerous quartz-carbonate veins, fine quartz stockwork and oxidized disseminated sulfides. Trench channel samples include 2 m of 3.0 gpt gold, 100 gpt silver, 0.9% lead and 0.8% zinc; 2 m of 1.5 gpt gold, 82 gpt silver and 1.0% lead; 4 m of 83 gpt silver and 1.2% copper; and 10 m of 73 gpt silver and 1.4% lead.

The main drill target at Loretos was a blind skarn-porphyry system indicated by the significant high chargeability anomaly. Hole Y-10 intercepted a zone of mineralized porphyritic dykes and intrusive breccias at 192 m depth with 73 m averaging 0.10% copper. At 549 m the main porphyritic intrusive was intersected with 123 m of disseminated sulfides averaging 0.12% copper ending in mineralization.

## ***Lucy Project***

The Lucy prospect comprises 483 ha and is located 85 km west of Metates. Lucy consists of an extensive zone of outcropping skarn developed along several km of the contact between intrusive rocks and limestone. Preliminary channel samples across the manto-like skarn mineralization returned 4 m of 0.9 gpt gold and 103 gpt silver; 6 m of 2.0 gpt gold, 34 gpt silver and 1.1% copper; and 7 of 117 gpt silver, 1.1% copper and 1.4% zinc. Five km to the southwest, sampling of base and precious metals bearing stratiform bodies of polymetallic carbonate replacement and minor skarn within limestone returned 15 m of 12 gpt silver and 0.67% copper and 30 m of 0.4 gpt gold, 12 gpt silver, and 3.7% zinc.

In 2018, Chesapeake drilled three holes to test the skarn/carbonate replacement/manto type mineralization. The holes were drilled 500 m apart over a 1.5 km E-W trend to define the extent of the mineralized skarn at depth. Hole L-01 encountered drilling difficulties and did not reach the targeted skarn intrusive. Holes L-02 and L-03 intercepted ore grade zinc-gold-silver-copper exoskarn mantos returning 22 m of 0.33 gpt gold and 1.45% zinc and 25 m of 0.59 gpt gold, 22 gpt silver, 0.25% copper and 1.62% zinc, respectively.

A 35 km IP-Resistivity survey was undertaken at Lucy. The survey defined a low resistivity zone flanked by two strong chargeability anomalies indicating a possible pyritic sulfide shell around a large, shallow seated intrusion which underlies the area of surface mineralization. The geophysical model together with the presence of quartz-sericite altered intrusive dykes along with ore grade mineralization within skarn and hornfels, presents a potential porphyry target below and beyond the drilled area.

### *Nicole Project*

The Nicole project is located 45 km northwest of Metates within a regional hydrothermal alteration zone spanning over 12 km<sup>2</sup>. Over a vertical extent of one km, quartz breccia veins transition to disseminated and stockwork mineralization at depth. Channel samples from the upper levels returned values of 7 m of 3.1 gpt gold, 238 gpt silver and 0.3% zinc and 3 m of 12 gpt gold and 450 gpt silver. Lower in the system, channel sampling of disseminated and stockwork mineralization returned results of 135 m of 0.8 gpt gold, 16 gpt silver, and 0.7% zinc and 35 m of 0.7 gpt gold, 20 gpt silver and 0.5% zinc.

Limited historic core drilling targeting the disseminated and stockwork mineralization returned intercepts of 30 m of 1.2 gpt gold, 29 gpt silver and 1.5% zinc and 30 m grading 0.7 gpt gold, 19 gpt silver and 0.7% zinc. A 45 line-km IP/Resistivity survey has defined a large 1.0 by 1.5 km coincident low resistivity/ high chargeability anomaly which underlies the area of drilling.

### *San Javier Project*

San Javier is located 12 km southeast of Metates. In early 2019, Chesapeake defined two different mineralized zones within a 15 km<sup>2</sup> alteration zone. Sampling of the 4 km long northeast trending quartz-silver stockwork zone returned values of 60 m of 71 gpt silver and 0.6% lead and 28 m of 158 gpt silver and 0.3% lead. A 3 km long northwest trending zone returned channel sample values of 48 m of 1.0 gpt gold and 15 m of 1.5 gpt gold.

In October 2019, Chesapeake announced that generative exploration at San Javier defined a new area of epithermal veins ("**San Javier West**") where channel samples returned 12 m of 1.6 gpt gold and 25 gpt silver, 1.6 m of 8.3 gpt gold and 1,972 gpt silver, along with other significant results.

In February 2020, the Company continued exploration at San Javier West with a 13.5 km IP geophysical survey and mechanized trenching to test the potential for disseminated and stockwork type mineralization hosted within highly altered intrusive rocks and bulk minable mineralization associated with structural intersections.

### *Crisy Project*

In March 2019, Chesapeake announced the discovery of the Crisy project ("**Crisy**") located 15 km south of Metates. Crisy covers a northwest trending zone of quartz breccia and stockwork over two km long hosted in shales. Three channel samples over a strike length of 500 m along the northwest trending zone returned 24 m of 1.5 gpt gold, 13 m of 1.1 gpt gold and 14 gpt silver and 4 m of 2.5 gpt gold and 49 gpt silver. In addition, channel samples taken 200 m apart from an intersecting northeast trending branch of the zone returned 14 m of 2.0 gpt gold and 43 gpt silver and 10 m of 1.4 gpt gold and 9 gpt silver.

In October 2019, a detailed mapping, sampling and trenching extended the strike length of the northwest trending mineralized system from 2 km to over 6 km with at least 400 m of vertical extent. Numerous en echelon sulfide-bearing quartz breccias, veins and silicified stockwork zones with disseminated gold-silver mineralization are hosted within fine-grained sandstone and mudstone broadly associated with porphyritic subvolcanic dykes. To advance the exploration program, a five km access road was constructed to Crisy. Bulldozer trench samples across multiple mineralized zones at Crisy returned results including 43 m of 1.4 gpt gold and 75 gpt silver and 24 m of 2.4 gpt gold and 80 gpt silver.

In December 2019, Chesapeake completed an additional 400 m of bulldozer trenching at Crisy. The new trenching expanded the October 2019 trench results from 24 m of 2.4 gpt gold and 80 gpt silver to 88 m of 1.3 gpt gold and 28 gpt silver including 41 m of 2.0 gpt gold and 56 gpt silver; and from 43 m of 1.4 gpt gold and 75 gpt silver to 66 m of 1.1 gpt gold and 51 gpt silver. A 15 km Induced Polarization and Resistivity Survey was undertaken at Crisy over the area of the bulldozer trenches and covered a further 500 m to the southeast.

By February 2020, the Company completed four additional bulldozer trenches totalling 350 m in length at Crisy. Overall, bulldozer trenching defined a mineralized area that extends across a ridgeline and measures 600 m along strike, up to 200 m in width and at least 150 m vertically along the predominant northwest-southeast trend. A 28 km IP geophysical survey identified a large, northwest-southeast trending high chargeability anomaly, approximately

200 m southwest of the bulldozer trenching. Surface samples from limited outcrops in the anomalous region returned 4 m of 1.2 gpt gold and 5 m of 1.0 gpt gold and 13 gpt silver.

### ***Cerro Pelon Project***

In March 2019, during regional reconnaissance, Chesapeake discovered Cerro Pelon, located 24 km east of Metates. Cerro Pelon hosts intermediate sulfidation quartz veins and stockwork along a north-northwest structural corridor three km by 750 m and remains open. The epithermal system is localized along the faulted contact between shales and andesites. Channel samples across separate quartz veins and stockworks returned 40 m of 42 gpt silver, 0.2 gpt gold and 25 m of 57 gpt silver. Tracing a stream sediment anomaly, a mineralized structure in shales was discovered four km east of Cerro Pelon where a sample cut returned 15 m at 1.0 gpt gold.

In October 2019, the Chesapeake discovered a second northwest striking subparallel structure at Cerro Pelon which hosts quartz veinlet breccia. Two channel samples across this structure returned 3.0 m of 33 gpt gold and 10 m of 3.4 gpt gold. A stream sediment geochemistry program covering 1.5 km along strike of this new structure will be undertaken along with geologic mapping and rock chip sampling.

### **El Duraznito**

In March 2020, the Company acquired an option to purchase a 100% interest in one concession at the El Duraznito gold-silver project in Durango, Mexico. The Company is required to pay US\$77,500.00 over three years to the owner to earn a 60% interest. This interest can be increased to 80% following the completion of a feasibility study and an additional payment of US\$100,000. Upon commencement of mine construction, the Company must pay a final US\$150,000 to acquire the remaining 20% interest to hold a 100% interest in the mineral concession. Chesapeake will conduct an aggressive exploration program including detailed geologic mapping, channel sampling and geophysical surveys at El Duraznito.

### **Tatatila Project**

In 2007, Chesapeake acquired through purchase and staking the Tatatila project in the state of Veracruz, Mexico. Chesapeake acquired seven concessions of a National Mineral Reserve totalling 2,767 ha in staged payments totalling US\$56,000 from the Consejo de Recursos Minerales de Mexico, a mining division of the Mexican government. The Company also staked one concession comprising 25,602 ha. The staked concession surrounds Mexican Gold Corp.'s Las Minas project where a promising grassroots discovery has been announced.

Tatatila covers a 200 km<sup>2</sup> district characterized by Cretaceous limestones and sedimentary rocks affected by multi-phase intrusions. The main intrusive complex is more than 10 km in diameter and consists of granodiorites, quartz-diorites and granites of Tertiary age. Igneous activity generated intermittent hydrothermal events that formed widespread skarn-type alteration zones along the contact between the calcareous and intrusive rocks. Porphyry and epithermal occurrences have also been found in this district.

In January 2019, a new discovery was located 500 m southwest of the Melany skarn prospect where prior sampling returned 67 m of 1.6 gpt gold, 7 gpt silver and 0.6 % copper. Sampling from three outcrops several hundred metres apart and 300 to 600 m higher in elevation than Melany returned 2 m of 28.9 gpt gold, 7 gpt silver and 0.5% zinc; 6 m of 0.4 gpt gold, 6 gpt silver and 5.6% zinc and 2 m of 0.14 gpt gold, 65 gpt silver, 2.3% lead and 3.1% zinc. As of March 2019, the Company had identified seven prospects at Tatatila.

### **Gunpoint Properties**

Chesapeake owns approximately a 68% equity interest in Gunpoint. Gunpoint owns a 100% interest in the Talapoosa project (“**Talapoosa**”) in the State of Nevada, USA. Gunpoint also held two properties in Mexico - La Gitana and Pena Blanca which were sold in 2021. The Cerro Minas property has been optioned to Medoro Metals Corp. (formerly Megastar Development).

Talapoosa is a low-sulphidation gold-silver property located in the Walker Lane gold trend of western Nevada, approximately 45 km east of Reno. The property consists of 535 unpatented lode mining claims and seven

additional fee land sections which cover 10,780 ha. Since 1977, eight mining companies have drilled 564 drill holes for 71,000 m along with environmental and metallurgical work. To date, four zones of mineralization have been identified - Main Zone, Bear Creek Zone, Dyke Adit, and East Hill.

Additional information on Talapoosa and the other projects in Mexico can be found on Gunpoint's website and under Gunpoint on SEDAR at [www.sedar.com](http://www.sedar.com).

## **DIVIDENDS**

Since the date of incorporation, the Company has not declared or paid any dividends or made any other distributions on the Common Shares, and does not currently intend to pay dividends. Earnings, if any, will be retained to finance future growth and development of the business of the Company.

## **CAPITAL STRUCTURE**

Chesapeake's authorized capital consists of the following:

- (a) an unlimited number of Common Shares without par value ("**Common Shares**");
- (b) an unlimited number of Class A shares without par value ("**Class A Shares**"), issuable in series, the first series of which is 902,060 Class A, Series 1 Restricted Voting Shares; and
- (c) an unlimited number of Preferred shares without par value ("**Preferred Shares**").

As at December 31, 2021, 67,366,866 Common Shares were issued and outstanding and no Class A Shares (or Series 1 thereof) or Preferred Shares were issued and outstanding.

### **Common Shares**

Each Common Share ranks equally with all other Common Shares with respect to dissolution, liquidation or winding up of Chesapeake and payment of dividends. The holders of Common Shares are entitled to one vote for each share of record on all matters to be voted on by such holders and are entitled to receive pro rata such dividends as may be declared by Chesapeake's board of directors out of funds legally available therefor and to receive pro rata the remaining property of Chesapeake on dissolution. The holders of Common Shares have no pre-emptive or conversion rights. The rights attaching to the Common Shares can only be modified by the affirmative vote of at least two-thirds of the votes cast at a meeting of shareholders called for that purpose.

### **Class A Shares**

The Class A Shares may be issued from time to time in one or more series, each consisting of such number of Class A Shares as determined by the board of directors of Chesapeake, who may also fix the designations, rights, privileges, restrictions and conditions attaching to the shares of each series of Class A Shares. No special rights and restrictions attached to a series of the Class A Shares may, however, confer upon a series priority over any other series of the Class A Shares then outstanding respecting dividends or a return of capital (whether on the dissolution of Chesapeake or on the occurrence of any other event that entitles the shareholders holding the shares of all series of shares of the same class of share to a return of capital). Except as required by law or by the Articles of Chesapeake or in accordance with any voting rights which may from time to time be attached to any series of Class A Shares, the holders of Class A Shares as a class shall not be entitled as such to receive notice of, to attend or to vote at any meeting of the shareholders of Chesapeake. The rights and restrictions attaching to the Class A Shares as a class or to a series thereof may be added to, changed or removed but only with the approval of the holders of the Class A Shares of the class or series given as specified in the Articles of Chesapeake, including a minimum requirement that such approval be given by two-thirds of the votes cast at a meeting of holders of Class A Shares of the class or series duly called for such purpose and held upon at least 21 days' notice at which a quorum is present

comprising at least two persons present holding or representing by proxy at least 50% of the outstanding Class A Shares of the class or series, unless there is only one person holding Class A Shares, in which case, that person shall constitute a quorum. On every vote taken at every such meeting or adjourned meeting, each holder of a Class A Share in the class or series shall be entitled to one vote in respect of each Class A Share held.

### Preferred Shares

The Preferred Shares may be issued from time to time in one or more series, each consisting of such number of Preferred Shares as determined by the board of directors of Chesapeake, who may also fix the designations, rights, privileges, restrictions and conditions attaching to the shares of each series of Preferred Shares. The Preferred Shares of each series shall, with respect to payment of dividends and distribution of assets in the event of voluntary or involuntary liquidation, dissolution or winding up of Chesapeake or any other distribution of the assets of Chesapeake among its shareholders for the purpose of winding-up its affairs, rank on a parity with the Preferred Shares of every other series and shall be entitled to preference over the Common Shares and the shares of any other class ranking junior to the Preferred Shares. After payment to the holders of Preferred Shares of the amounts so payable to them in the event of voluntary or involuntary liquidation, dissolution or winding up of Chesapeake or any other distribution of the assets of Chesapeake among its shareholders for the purpose of winding up its affairs, holders of Preferred Shares shall not be entitled to share in any further distribution of the property or assets of Chesapeake except as specifically provided in the special rights and restrictions attached to any particular series. Except for such rights relating to the election of directors on a default in payment of dividends as may be attached to any series of the Preferred Shares by the directors, holders of Preferred Shares are not entitled to receive notice of, or to attend or vote at, any general meeting of shareholders of Chesapeake.

## MARKET FOR SECURITIES

### Trading Price and Volume

The Common Shares of the Company are listed and posted for trading on the TSX-V under the symbol “CKG”. The following table sets out the share price trading range and volume of shares traded on the TSX-V by month during the financial year ended December 31, 2021:

Month	High (\$)	Low (\$)	Volume
January	5.52	4.4	644,000
February	5.28	4.52	466,000
March	4.48	3.97	502,700
April	4.36	3.88	268,600
May	4.54	4.06	433,300
June	4.71	3.97	395,800
July	4.25	3.83	258,900
August	4.5	4.04	270,200
September	4.15	3.15	230,100
October	3.82	3.27	195,100
November	3.74	3.2	266,400
December	3.35	2.9	285,300

## ESCROWED SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTION ON TRANSFER

The following table sets out information on securities of the Company that were held in escrow or were subject to a contractual restriction on transfer as at December 31, 2021:

Designation of Class	Number of securities held in escrow or that are subject to a contractual restriction on transfer	Percentage of class
Common	10,375,000 <sup>(1)</sup>	15.4% <sup>(2)</sup>

(1) 375,000 Common Shares will be released from escrow upon application to and approval of the British Columbia Securities Commission and 10,000,000 Common Shares are subject to a 7 year escrow with release to the Alderley Gold shareholders based on time and milestone conditions, of which 500,000 Common Shares have since been released on January 19, 2022.

(2) Percentage calculated based on Common Shares outstanding as of December 31, 2021 (being 67,366,866 Common Shares).

## DIRECTORS AND OFFICERS

The following is information on the directors and executive officers of the Company as at the date of this Annual Information Form.

### Name, Occupation and Security Holding

Name and province/state and country of residence	Positions within the Company and period served as a director	Principal occupations in past five years
P. Randy Reifel British Columbia, Canada	Executive Chairman; Director (since April 2002)	Chairman and President of the Company
John Perston <sup>(2)(3)</sup> Isle of Man, United Kingdom	Director (since April 2002)	President, JWP Consulting (geological consulting firm)
Lian Li <sup>(2)</sup> British Columbia, Canada	Director (since December 2013)	International Business Consultant; Partner of Causeway Consulting and Capital LLC since April 2017
Christian Falck <sup>(1)(2)(3)</sup> British Columbia, Canada	Lead Director (since December 2019)  Director (2006 – 2013)	Associate Director, G-Force Group since 2018; prior thereto, retired
Doug Flegg <sup>(1)</sup> Ontario, Canada	Director (since January 2021)	Principal, Cairn Merchant Partners LP since June 2016; Managing Director of Global Mining Sales at BMO Capital Markets from February 2005 to June 2015

<u>Name and province/state and country of residence</u>	<u>Positions within the Company and period served as a director</u>	<u>Principal occupations in past five years</u>
Alan Pangbourne <sup>(3)</sup> British Columbia, Canada	Chief Executive Officer; President; Director (since January 2021)	Chief Executive Officer and President of the Company since January 2021; Director of TMAC Resources Inc. from September 2020 to February 2021; Director of Guyana Goldfields Inc. from May 2019 to August 2020 and President & Chief Executive Officer from January 2020 to August 2020; Chief Operating Officer of SSR Mining Inc. from January 2013 to May 2018
Randy Buffington <sup>(1)(2)(3)</sup> Nevada, USA	Director (since January 2021)	President and CEO of Nevada Copper Corp. since October 2021; International Mining Consultant; Chief Executive Officer of Allied Nevada Gold Corp. from 2014 to 2016; Chief Executive Officer and Chairman of Hycroft Mining Corporation from 2016 to 2020;
Erick Underwood Ontario, Canada	Chief Financial Officer	Chief Financial Officer of the Company since June 2021; Business Planning Consultant from April 2020 to June 2021; Director of Finance at Compania Minera Zafranal SAC from March 2017 to April 2020; Chief Financial Officer of AQM Copper Inc. from November 2013 to February 2017.
Alberto Galicia Sinaloa, Mexico	Vice President, Exploration	Professional Geologist; prior thereto, Project Manager of the Company
Gary Parkison Colorado, U.S.A.	Vice President, Development	Professional Geologist; Vice President, Development of the Company

(1) Member of the Audit Committee.

(2) Member of the Corporate Governance and Compensation Committee.

(3) Member of the Technical Advisory Committee.

Each director of the Company is elected to serve until the next annual general meeting of shareholders of the Company or until his or her successor is elected or appointed, or unless his or her office is earlier vacated under any of the relevant provisions of the Articles of the Company or the *Business Corporations Act* (British Columbia).

As at December 31, 2021, the current directors and executive officers of the Company as a group beneficially owned, or controlled or directed, directly or indirectly, 15,124,729 Common Shares representing approximately 22.45% of the issued and outstanding Common Shares of the Company.

#### **Cease Trade Orders, Bankruptcies, Penalties or Sanctions**

No director or executive officer of the Company is, as at the date of this Annual Information Form, or has been, within the ten years preceding the date of this Annual Information Form, a director, chief executive officer or chief financial officer of any company (including the Company) that:

- (a) was subject to a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days,

when such order was issued while the person was acting in the capacity of a director, chief executive officer or chief financial officer of the relevant company, or

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

Other than as disclosed herein, no director or executive officer of the Company or any shareholder holding a sufficient number of Common Shares of the Company to affect materially the control of the Company:

- (a) is, as at the date of this Annual Information Form, or has been, within the ten years preceding the date of this Annual Information Form, a director or executive officer of any company (including the Company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets,
- (b) has, within the ten years preceding the date of this Annual Information Form, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of that person,
- (c) has been subject to 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
- (d) has been subject to 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 regarding the Company.

Randy Buffington was the Chief Executive Officer of Allied Nevada Gold Corp. (“**Allied Nevada**”) when Allied Nevada, on March 10, 2015, filed a voluntary petition for relief under Chapter 11 of the Bankruptcy Code in the United States Bankruptcy Court for the District of Delaware. On October 22, 2015, Allied Nevada completed its financial restructuring and emerged from Chapter 11 proceedings under the name Hycroft Mining Corporation.

### **Conflicts of Interest**

The Company’s directors and officers may serve as directors or officers of other companies or have significant shareholdings in other resource companies and, to the extent that such other companies may participate in ventures in which the Company may participate, the directors and officers of the Company may have a conflict of interest in negotiating and concluding terms respecting the extent of such participation. If such conflict of interest arises at a meeting of the Company’s directors, a director who has such a conflict will abstain from voting for or against the approval of such a participation or such terms.

The directors of the Company are required to act honestly, in good faith and in the best interests of the Company. The directors and officers of the Company are aware of the existence of laws governing the accountability of directors and officers for corporate opportunity and requiring disclosures by directors and officers of conflicts of interest and the Company will rely upon such laws in respect of any directors’ and officers’ conflicts of interest or in respect of any breaches of duty by any of its directors or officers. All such conflicts will be disclosed by such directors or officers in accordance with the Articles of the Company and the *Business Corporations Act* (British Columbia), and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law.

Randy Reifel serves as Executive Chairman of Chesapeake and as President of Chesapeake’s 68% owned subsidiary, Gunpoint. The business affairs of Chesapeake are focused principally in Mexico while the business

affairs of Gunpoint are focused principally in Nevada, USA. The geographical diversification of business interests serves to mitigate possible conflicts of interest with respect to properties in the respective countries. In addition, the business interactions and day-to-day management of Chesapeake, and its interactions with industry participants, industry consultants and financiers are the principal responsibility of Chesapeake’s President and CEO, Alan Pangbourne. To the extent that any possible conflict of interest could or does arise with respect to Mr. Reifel’s duties on behalf of Chesapeake and his duties to Gunpoint, Mr. Reifel reports all such possible conflicts to the independent directors of Chesapeake prior to taking any steps in such matters.

To the best of the Company’s knowledge, and except as disclosed herein, there are no known existing or potential conflicts of interest between the Company or any of its subsidiaries and any director or officer of the Company.

## AUDIT COMMITTEE DISCLOSURE

Pursuant to the *Business Corporations Act* (British Columbia) and National Instrument 52-110 on “Audit Committees” (“**NI 52-110**”), the Company is required to have an audit committee.

### Audit Committee Charter

Pursuant to NI 52-110, the Company’s Audit Committee is required to have a charter. A copy of the Company’s Audit Committee Charter is set out in Appendix B to this Annual Information Form.

The Audit Committee assists the Board of Directors in fulfilling its responsibilities relating to the Company’s corporate accounting and reporting practices. The Audit Committee is responsible for ensuring that management has established appropriate processes for monitoring the Company’s systems and procedures for financial reporting and controls, reviewing all financial information in disclosure documents, monitoring the performance and fees and expenses of the Company’s external auditors, and recommending external auditors for appointment by shareholders.

### Composition of the Audit Committee

As at the date of this Annual Information Form, the following is information on the members of the Company’s Audit Committee:

Name	Independent	Financial Literacy
Christian Falck (Chair)	Yes	Yes
Randy Buffington	Yes	Yes
Doug Flegg	Yes	Yes

### Relevant Education and Experience

All of the members of the Audit Committee are graduates of post-secondary education. Christian Falck holds a Bachelors Degree in Accounting and Finance and was Chair of the Company’s Audit Committee during his first period of service as a director of the Company and has held senior positions with Teck Corporation and PricewaterhouseCoopers LLP (Corporate Finance and Investment Banking). Doug Flegg holds both an MBA and B.Sc. Honours Geology degrees from Queen’s University, is a Chartered Financial Analyst, and has worked in the investment business in various roles for over 28 years. Randy Buffington holds a Masters degree in Civil Engineering and has held various senior management positions with Barrick Gold Corporation, Placer Dome Inc. and Cominco American Inc. Each member of the Audit Committee has assisted several resource industry companies with strategic focus and corporate finance and has many years’ experience in the management and administration of publicly owned mining exploration companies. This experience in the mining industry has provided each member of the Audit Committee with an understanding of the accounting principles used by the Company to prepare its financial statements, the ability to assess the general application of such accounting principles and analyze or evaluate financial statements, and an understanding of internal controls and procedures for financial reporting.

### Reliance on Certain Exemptions

At no time since January 1, 2021 has the Company relied on the exemption in section 2.4 of NI 52-110 (*de minimis non-audit services*), section 3.2 of NI 52-110 (*initial public offerings*), section 3.3(2) of NI 52-110 (*controlled companies*), section 3.4 of NI 52-110 (*events outside control of member*), section 3.5 of NI 52-110 (*death, disability or resignation of audit committee member*), section 3.6 of NI 52-110 (*temporary exemption for limited and exceptional circumstances*), section 3.8 of NI 52-110 (*acquisition of financial literacy*) or an exemption from NI 52-110, in whole or in part, granted under Part 8 of NI 52-110 by a securities regulatory authority or regulator.

### Audit Committee Oversight

At no time since January 1, 2021 was a recommendation of the Audit Committee to nominate or compensate an external auditor not adopted by the Company's Board of Directors.

### Pre-approval Policies and Procedures for Non-Audit Services

The Audit Committee has not adopted any specific policies and procedures for the engagement of non-audit services.

### External Auditor Service Fees (By Category)

The aggregate fees billed by the Company's external auditor in each of the last two financial years of the Company for services in each of the categories indicated are as follows:

Financial Year Ended	Audit Fees	Audit Related Fees <sup>(1)</sup>	Tax Fees <sup>(2)</sup>	All Other Fees <sup>(3)</sup>
December 31, 2021	\$47,000	Nil	Nil	Nil
December 31, 2020	\$30,000	Nil	Nil	Nil

(1) Pertains to assurance and related services that are reasonably related to the performance of the audit or review of the Company's financial statements and that are not reported under "Audit Fees".

(2) Pertains to professional services for tax compliance, tax advice and tax planning.

(3) Pertains to products and services other than services reported under the other categories.

### LEGAL PROCEEDINGS AND REGULATORY ACTIONS

The Company is not a party to any legal proceedings, and there are no legal proceedings to which any of the Company's property is subject, and no such proceedings are known to the Company to be contemplated.

During the financial year ended December 31, 2021:

- (a) no penalties or sanctions were imposed against the Company by a court relating to securities legislation or by a securities regulatory authority;
- (b) no other penalties or sanctions were imposed by a court or regulatory body against the Company that would likely be considered important to a reasonable investor in making an investment decision in the Company's securities; and
- (c) no settlement agreements of the Company were entered into with any court relating to securities legislation or with any securities regulatory authority.

## **INTERESTS OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

Except as disclosed herein, no director or executive officer of the Company, no person or company that beneficially owns, or controls, directly or indirectly, more than 10% of the Common Shares, and no associate or affiliate of any of such persons or companies has any material interest, direct or indirect, in any transaction since January 1, 2019 that has materially affected or is reasonably expected to materially affect the Company.

In August 2019, the Company obtained a US\$9 million bridge loan from the President to exercise its option to repurchase the 1% NSR on Metates. See “General Development of the Business – Most Recent Three-Year History”. The US\$9.0 million bridge loan carried an interest rate of 5% per annum. The loan was fully repaid in September, 2019 and the interest paid totalled \$83,400.

## **TRANSFER AGENTS AND REGISTRARS**

Computershare Investor Services Inc. (at its principal transfer office in Vancouver, British Columbia) is the transfer agent and registrar for the Common Shares of the Company.

## **MATERIAL CONTRACTS**

Other than the following contracts, available on SEDAR ([www.sedar.com](http://www.sedar.com)), there are no contracts that are material to the Company that were entered into within the last financial year of the Company or before the last financial year but is still in effect (other than contracts entered into in the ordinary course of business of the Company):

- (a) Share Purchase Agreement dated December 9, 2020 among Alderley Edge Investments Ltd., Thezpaul Dhatt, 485374 B.C. Ltd. and Joshua Ngo, as vendors, and the Company, as purchaser, in respect of the acquisition of Alderley Gold Corp.

## **INTERESTS OF EXPERTS**

### **Technical Report Authors**

Justin M. Black, PE; Richard K. Zimmerman, MSc, RG, SME-RM; Art S. Ibrado, PhD, PE; and Michael G. Hester, FAusIMM, prepared the “Metates Sulphide Heap Leach Project Phase 1 – NI 43-101 Technical Report Preliminary Economic Assessment” dated effective August 30, 2021 and filed on SEDAR on August 30, 2021.

To the best of the Company’s knowledge and except as disclosed herein, no registered or beneficial interest, direct or indirect, in any securities or other property of the Company was held by the experts listed above when the particular expert’s report was prepared, was received by such expert after the preparation of the report, or will be received by such expert.

### **Auditors**

Saturna Group Chartered Professional Accountants LLP, is the external auditor of the Company who reported on the audited annual financial statements of the Company for the financial years ended December 31, 2021 and 2020.

Saturna Group Chartered Professional Accountants LLP is independent with respect to the Company within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of British Columbia.

## **ADDITIONAL INFORMATION**

Additional information relating to the Company may be found on SEDAR at [www.sedar.com](http://www.sedar.com).

Additional information, including directors' and officers' remuneration and indebtedness (if any), principal holders of the Company's securities and securities authorized for issuance under equity compensation plans, is contained in the Company's management proxy information circular dated April 12, 2021 filed on SEDAR in respect of the Company's annual general meeting of shareholders held on May 18, 2021.

Additional information is provided in the Company's audited consolidated financial statements and management's discussion and analysis for its most recently completed financial year ended December 31, 2021.

The executive summary of the Metates Project is extracted from the “Metates Sulphide Heap Leach Project Phase 1 – NI 43 101 Technical Report Preliminary Economic Assessment” (the “PEA”) dated effective August 30, 2021 and prepared for the Company by M3 Engineering and Technology Corp. and other consultants (see “Interests of Experts”).

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## **1 SUMMARY**

Chesapeake Gold Corp. (Chesapeake) commissioned M3 Engineering & Technology Corp. (M3) of Tucson, Arizona to prepare a preliminary economic assessment (PEA) of the Metates Sulphide Heap Leach Project - Phase 1 in Durango, Mexico, compliant with Canadian reporting regulations as defined in National Instrument 43-101 (NI 43-101). This PEA explores the viability of a two-stage heap leach process to recover gold and silver from intrusive and intrusive breccia materials that are parts of the Metates mineral resource.

Due to the partial refractoriness of the Metates materials, the two-stage process will include oxidation of the sulphides on an on-off pad, followed by conventional cyanide heap leaching process of the oxidized materials on a dedicated heap leach pad. The recoveries are projected to be lower compared to the pressure oxidation option but the process will not be as capital intensive.

The planned tonnage for operation is 15,000 tonnes per day (tpd) over 31 years, with potential to expand to 30,000 tpd.

### **1.1 KEY DATA**

Key project parameters are presented in Table 1-1 including a summary of the project size, production, operating costs, metal prices, and financial indicators.

The results of this PEA are preliminary in nature. There is no certainty that the results of this PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

**Table 1-1: Key Project Data**

Mine Life	24 years			
Operation Life	31 years			
Mine Type:	Open Pit			
Process Description	Crushing, oxidation on an on-off pad, conventional cyanide heap leaching on a dedicated pad, Merrill-Crowe Au/Ag recovery			
<b>Material Mined</b>	<b>Life of Mine ("LOM")</b>			
Total Material Mined, kt	533,998			
Direct Feed to Process, kt	127,294			
Low-grade Stockpile, kt	38,797			
Waste Rock, kt	367,907			
Strip Ratio	2.22			
Average Stacking Rate, kt/year	5,358			
<b>Metal Production</b>				
Gold, kOz	2,824			
Silver, kOz	62,286			
<b>Average Process Grades</b>	<b>Years 1-10</b>	<b>Years 11-20</b>	<b>Years 21-31</b>	<b>LOM Avg</b>
Gold (g/t)	0.859	0.931	0.490	0.756
Silver (g/t)	23.18	11.22	12.75	15.71
<b>Average Annual Production</b>	<b>Years 1-10</b>	<b>Years 11-20</b>	<b>Years 21-31</b>	<b>LOM Avg</b>
Gold (k Oz)	104.8	114.7	57.1	91.1
Silver (k Oz)	3,004	1,467	1,598	2,009
<b>Initial Capital Costs (US\$000)</b>	<b>\$359,209</b>			
<b>LOM Average Operating Costs</b>	<b>US\$/t processed</b>			<b>US\$/Oz Au</b>
<b>Total Cash Cost</b>	<b>\$11.66</b>			<b>\$685.97</b>
Sustaining Capital, Reclamation & Closure	\$1.06			\$62.49
<b>All-In Sustaining Cost (AISC)</b>	<b>\$12.72</b>			<b>\$748.46</b>

<b>Key PEA Financial Values</b>	<b>Low Case</b>	<b>Base Case</b>	<b>High Case (Spot)</b>
Gold Price (US\$ per troy ounce)	\$1,360	\$1,600	\$1,786
Silver Price (US\$ per troy ounce)	\$19	\$22	\$26
USD:CDN Exchange Rate	1:1.25		
USD:MEX Exchange Rate	1:20.05		
<b>Unlevered Pre-Tax Economic Indicators</b>			
NPV at 5% Million C\$	\$896	\$1,427	\$1,906
NPV at 5% Million US\$	\$717	\$1,142	\$1,525
IRR %	25.3	35.4	45.2
Payback, years	3.4	2.5	2.0
<b>Levered After-Tax Economic Indicators</b>			
NPV at 5% Million C\$	\$509	\$852	\$1,162
NPV at 5% Million US\$	\$407	\$682	\$930
IRR %	26.9	41.2	55.9
Payback, years	3.4	2.2	1.6

## **1.2 PROPERTY DESCRIPTION AND LOCATION**

The Metates mine site is in the northwestern part of Durango State, some 160 kilometers (km) northwest of the city of Durango and 175 km north of the coastal resort city of Mazatlán. Geographic coordinates of the Metates deposit area are 24°55'N latitude and 106°23'W longitude (Figure 1-1).

Topography at the Metates site is mountainous with elevations in the general region ranging from 620 meters (m) in the west near the village of San Juan de Camarones to 2,300 m along the ridge line to the southeast. Elevations in the immediate Metates Project area range from 650 to 1,180 m.

The Metates property is composed of twelve contiguous concessions totaling 4,261 hectares in area. These concessions are held in the name of American Gold Metates, S. de R.L. de C.V., an indirect 99.9%-owned subsidiary of Chesapeake. All of these concessions are in good standing with applicable taxes, payments, and filings being current.



Figure 1-1: Metates Project Location Map

### **1.3 HISTORY**

Exploration and mining at Metates trace back to the early Spanish colonial times of the 17th and 18th centuries. The first extensive work on the property is thought to be that of Sr. Roberto Erraguin, who developed at least one adit targeting mineralization in the sediments, and also possibly an adit into the intrusive hosted mineralization as well.

From 1980 to 1983, Minas Frisco and a subsidiary of British Petroleum (“Frisco/BP”) followed up on the earlier work of Sr. Erraguin, drilling numerous holes that targeted primarily the sedimentary-hosted massive sulphide base metal-rich mineralization. The entire available core from this drilling was re-logged and assayed by Cambior.

In 1987, after the Frisco/BP venture returned the property to Sr. Erraguin, Luismin optioned the concessions. Luismin’s early-stage exploration determined that the intrusive-hosted mineralization represented a large-tonnage, disseminated-type deposit. Luismin drilled four deep core holes in 1992 in the most geochemically anomalous area and intercepted significant lengths of continuously mineralized material with low-grade gold and silver.

In early 1993, Cambior and Luismin entered into a joint venture, whereby Cambior could earn an initial 50% of the property through a combination of exploration expenditures and the preparation of a feasibility study. Between 1993 and 1997, Cambior carried out extensive work on the Metates property, culminating in the preparation of a preliminary feasibility study, dated July 1997.

Since acquiring the Metates property in 2007, Chesapeake has completed extensive drilling and related assaying in order to validate the Cambior data and to allow for its incorporation into a succession of NI 43-101-compliant mineral resource estimates. In addition, Chesapeake and independent consultants have prepared several NI 43-101-compliant PEA technical reports and issued a preliminary feasibility study in March 2013 (2013 PFS), which was updated in April 2016. This PEA report examines a different approach to processing material using oxidative heap leaching, which would require lower capital and operating costs compared to the previous studies conducted by Chesapeake.

### **1.4 GEOLOGICAL SETTING AND DEPOSIT TYPE**

#### **1.4.1 Geology**

The local geology shows the Metates Project is situated within a window of Mesozoic basement rocks exposed by erosion of the extensive flat-lying Tertiary volcanic cover. The basement complex of Cretaceous to Jurassic aged rocks consists of a monotonous sequence of interbedded sandstones, shales, and argillites. In general, the lower horizons are finer-grained and thinly bedded, with the grain size and bedding thickness tending to increase up section. The sedimentary package measures at least 1,000 m in exposed thickness, but the true thickness could be somewhat less, due to the presence of intra-formational thrust faulting and isoclinal folding. A variable amount of black carbonaceous material is present throughout the sequence, with organic carbon content ranging up to more than 1% locally. Pyrite is a common constituent of the sedimentary rocks and is commonly present as thin laminations, as disseminated framboidal biogenic pyrite, or as irregular veinlets or stockworks. Overall, pyrite content in the sedimentary rocks within the mineralized area is typically in the range of 3% to more than 10% but can be much higher locally. The stratigraphy is indicative of a submarine seafloor distal flysch depositional environment.

A preserved thickness of at least 160 m of conglomerate is present in the upper portion of the Mesozoic sedimentary sequence. The conglomerate ranges from rounded pebbles to boulders of sandstone and subordinate shale, chert, volcanic rock, and quartz fragments in a sandy-to-shaley, well-indurated matrix. The conglomeratic beds are often interbedded with arkose and argillite.

A felsic igneous body, interpreted to be a subvolcanic to extrusive volcanic dome, is generally broadly conformable with the enclosing sedimentary rocks and is referred to as the Metates Intrusive. The body is in the shape of an inverted saucer and is oriented in a northwest/southeast direction, dipping approximately 40° to the northeast. It is

approximately 1,500 m long and up to 300 m thick. The body is quartz latitic in composition and contains approximately 50% phenocrysts (quartz, biotite, and feldspars) set in an aphanitic groundmass. The rock exhibits a texture ranging from igneous to volcanic. Pyrite content in the Metates Intrusive, as in the surrounding sedimentary rocks, is typically in the range of 5% to more than 10%. The upper contact, or transition with the sediments, can be upwards of 100 m thick, and is composed predominantly of a breccia body that comprises often rounded igneous clasts and igneous-derived matrix, with a progressively larger amount of sedimentary matrix and sedimentary clasts going up section away from the core of the igneous body. Several radiometric age dates have been obtained from the Metates Intrusive. A U-Pb date has been obtained on a zircon separate and indicates an emplacement age of 108 million years ("Ma"). Ages of 87 and 89 Ma, which likely represent an alteration age, have been obtained on sericite by K/Ar methods.

The Tertiary sequence at Metates consists primarily of a regionally extensive Lower and Upper Volcanic Sequence. In the Metates area, the lower volcanics are a sequence of andesitic flows 100 to 150 m thick, and breccias which have been propylitically altered and are thought to postdate mineralization. A conglomerate of variable thickness (up to 60 m) is known to locally underlie the lower volcanic sequence rocks. This rock is distinct from the Mesozoic conglomerate but could be a local erosional accumulation of this unit. It does appear to be altered and mineralized, with local, possibly secondary enrichment of silver. The upper volcanics are composed of cliff-forming rhyolite ash flow tuff units, which are up to 700 m thick in the immediate vicinity of the project. Talus (or colluvial) deposits up to 50 m thick cover much of the project area and are derived predominantly from erosion of the upper volcanics.

#### **1.4.2 Mineralization**

Sulphide mineralization within the project area is thought to be both syngenetic and epigenetic in origin. Syngenetic mineralization is fairly widespread within the sedimentary rocks and is typical of rocks formed in a black-shale or euxinic environment. Very little, if any, precious metal mineralization is thought to be associated with this phase of predominantly pyritic mineralization. Epigenetic mineralization may have occurred as two separate mineralizing events in both the sedimentary rocks and in the intrusive rocks but it is possible that the mineralization in the sediments represents an earlier, more distal event that is related to an emerging intrusive dome, which subsequently intruded part of the sedimentary hosted mineralization.

Mineralization is most typically expressed as sulphide stockwork veinlets or disseminations. Within both the sedimentary and intrusive rocks, veinlets are typically composed almost completely of pyrite, sphalerite, arsenopyrite, and galena, with very little gangue mineralization such as quartz or calcite. Veinlets are typically between 1 to 5 millimeters (mm) in thickness, sometimes exceeding 1 cm, and are generally banded with layers of pyrite, sphalerite, and/or galena. Within the intrusive, feldspar and biotite phenocrysts are commonly replaced by pyrite and sphalerite, with the individual pyrite crystals generally several millimeters in size. Sphalerite and galena inclusions are common within disseminated and veinlet pyrite.

Extensive mineralogical investigations indicate that some amounts of native gold and electrum occur as both rare free mineral grains, as micron-sized grains that are generally enclosed within the pyrite grains, or as solid solution within the crystal structure of the pyrite in both sedimentary and intrusive host rocks. The majority of the gold is associated with pyrite either as solid solution or as inclusions although there is some amount of coarser, visible gold (>20 micron). Extensive metallurgical investigations have demonstrated that the gold is largely refractory or not amenable to routine cyanidation, even when the material is finely ground. Most silver mineralization is associated with the mineral pyrargyrite or as a solid solution within the copper mineral tetrahedrite. Commonly both of these minerals are found as inclusions within galena (AMTEL, 2020). These same metallurgical investigations show that silver is also refractory, but to a lesser degree than gold.

Gold and silver mineralization is associated with the sulphides replacing feldspar and biotite phenocrysts, with sulphide veinlets and sulphide stockworks. Sulphide sulphur content of mineralized sedimentary and intrusive rocks is typically in the range of 3% to more than 10% by weight, a reflection of the high percentage of pyrite in these rocks. The sedimentary rocks may also contain significant amounts of organic carbon, which results in the mineralization in these rocks having both refractory and mildly “preg-borrowing” characteristics. Preg-borrowing is when gold and silver, once extracted by cyanide, are then bound up with organic carbon, making them more difficult for routine recovery. Multiple mineralizing episodes are suggested based on the cross-cutting and mineralized breccia clast/host relationships. Oxidation of the Metates-mineralized system has been very limited, with the depth of oxidation generally not exceeding 5 to 10 m. Surficial exposures of fresh sulphides are not uncommon.

**1.5 EXPLORATION STATUS, DRILLING, SAMPLE PREPARATION AND SECURITY**

**1.5.1 Exploration and Drilling**

Following the limited amount of Luismin drilling in 1992 and shortly after the Cambior/Luismin joint venture was finalized, Cambior undertook an extensive drilling campaign beginning in 1993 which continued uninterrupted through 1995. A core drilling program was initiated by Chesapeake in December 2007 with the initial purpose of twinning numerous Cambior drillholes in both the sediment and intrusive hosted mineralization so as to validate the results of the Cambior holes and provide additional information on the sample preparation, analytical procedures, and assays. Subsequent holes were also completed as infill holes between the two mineralized zones that were untested by Cambior, as well as some step-out holes targeting possible extensions outside the known mineralization. The program also provided drill core for a comprehensive metallurgical test program. A total of 36 holes were drilled in this program for a total of 14,379 m.

In February 2011, Chesapeake undertook a second core drilling program which included 53 holes totaling 23,486 m. The purposes of the core drilling program were to infill between widely spaced holes for conversion of inferred mineral resources to indicated mineral resources, to drill geotechnical holes in support of pit slope stability investigations, and to expand the overall mineral resource with step-out holes. A rotary reverse circulation (RC) drilling program was conducted in 2012 to drill condemnation holes in and around the area of the proposed waste rock management and tailing storage facility, as well as the main Metates plant site. Some of these holes were converted to groundwater piezometer holes. RC drilling totaled 4,200 m in 27 holes.

Five holes, totaling 2,018 m, were drilled for the 2013 campaign at Metates mostly to supply additional metallurgical samples. In 2021, another set of PQ-sized (85 mm) holes were drilled to supply metallurgical samples for column oxidation and leach testing. A summary of drilling used for the estimation of mineral resources at Metates is provided as Table 1-2.

**Table 1-2: Summary of Drilling by Campaign**

<b>Company</b>	<b>Year</b>	<b>No. of Holes</b>	<b>Meters</b>
Cambior	1993	14	4,827
	1994	92	33,499
	1995	34	10,499
	<b>Subtotal</b>	<b>140</b>	<b>48,825</b>
Chesapeake	2007–2008	36	14,379
	2011	53	23,486
	2013	5	2,018
	2021*	5	2,333
	<b>Subtotal</b>	<b>99</b>	<b>42,216</b>
<b>Total</b>		<b>239</b>	<b>91,041</b>

\*Not used for mineral resource.

### **1.5.2 Sample Preparation, Security and Verification**

The Chesapeake sample preparation procedures and security protocols employed were similar to those procedures described for the Cambior 1994–95 programs and would be considered industry standard. Drill core was transported from the drill rig to the secure logging and storage facility at the end of each twelve-hour drill shift. After the core was logged for geology and geotechnical attributes, the core was marked into 3-m sample intervals. The core was photographed and then sawed in half, and one-half placed in a plastic sample bag marked with a unique sample number and sent off for assay.

Specifically for the Chesapeake samples and the 2007-2008, 2011 and 2013 drill campaigns, one of the one-half core assay samples was cut in half to generate what is called a “¼ core duplicate” sample at the rate of about every 40th sample. This ¼ core duplicate sample was assigned a unique sample number. Standards and blanks were introduced into the sample stream with unique sample numbers assigned at the rate of about 1 in 20 samples. The standards used are certified reference material sourced from an independent commercial third party. Three different analytical standards were used, and cover a range of gold and silver values, along with one blank standard to examine carryover contamination from sample to sample.

The Chesapeake samples were shipped in a covered and secured truck to ALS Chemex Laboratories in Hermosillo or Zacatecas, Mexico. Once at the lab, the samples were dried, and the entire sample crushed to 90% passing -10 mesh. Samples were then split, and a 1,000-g subsample obtained, which was then pulverized to 85% passing -200 mesh in a ring and puck type mill. At the rate of about every 40th sample, a second 1,000-g split of the -10 mesh material was obtained and then pulverized to generate a “preparation duplicate” sample which was also assigned a unique sample number. Also at the rate of every 40th sample, the 1,000-g pulverized sample was split in two 500-g subsamples to create “pulp duplicates,” each of which was again assigned a unique sample number. Thus, four separate assays were reported for every 40th sample. These four different assays, performed on four different assay pulps, are instructive in determining the amount of sample variance related to each of these steps: core sample, preparation, and pulverization. After pulverization, a portion of each of the individual pulp samples was shipped to the ALS Chemex Laboratories facility in Vancouver, BC, Canada, where the samples were analyzed. The assays were then reported to Chesapeake both electronically and by signed assay certificates.

The sample preparation and analytical procedures employed by Cambior and Chesapeake are adequate for the purpose of defining mineral resources. Some of the independent reviewers of the Cambior QA/QC procedures identified an assay bias in the 1994 data. The Chesapeake QA/QC work has verified the bias and quantified the likely impact. Cambior’s 1993 and 1994 gold assays have been factored by 0.8985 to correct for an apparent analytical bias at the Bondar-Clegg laboratory.

Independent Mining Consultants (IMC) conducted much of the work to assemble the Cambior drilling database for the Cambior 1997 preliminary feasibility study and still has the original database in its archives. IMC compared this archive data with the assay database provided by Chesapeake at the start of the 2009 mineral resource modeling work. The comparison validates that the original data has not been tampered with nor otherwise altered since the Cambior study. IMC also compared the Chesapeake assays in the database with the ALS Chemex assay certificates to verify the 2007-2008 drilling data. For 2011 drilling, IMC compared the database entries with assay certificates for five holes, about 10% of the new data. No errors were encountered, and IMC accepted the data with no adjustments. Similarly, the assay results for the 2013 drilling was compared and accepted by IMC.

The five holes drilled for the 2013 program were composited to 15 m bench composites and compared with the 2012 mineral resource model. On a hole-by-hole basis, the comparisons are quite variable, but the five holes as a group compared reasonably well and serve to validate the current mineral resource model for gold, silver, and zinc. This further implies that the holes compare reasonably well with the 2011 drilling data. The QA/QC results from the

Chesapeake drilling programs determined there was no problem with the integrity of the assays received from ALS Chemex and all the assays were entered into the database.

## **1.6 MINERAL PROCESSING AND METALLURGICAL TESTING**

In this report, the term “ore” is used to distinguish “whole ore” from flotation concentrates, only for the sake of clarity. It is not meant to indicate economic viability of the material to mining and processing.

Gold and silver in the Metates deposit are refractory due to encapsulation by sulphides, namely pyrite, arsenian pyrite and arsenopyrite. Various oxidation schemes have been tested in the past, including bacterial oxidation, roasting, oxidation under ambient conditions and pressure oxidation (POX) of sulphide concentrates (Austin et. al, 2016). The results show that gold and silver recoveries by cyanidation improve linearly with the degree of oxidation.

While pressure oxidation resulted in high metal recoveries, the initial capital required to build a flotation plant and POX plant is quite high. This study explores the applicability of a two-stage heap leaching process, where material is oxidized first on an on-off pad and then cyanide leached on a dedicated pad.

Early in 2021, Chesapeake Gold completed five diamond drill holes to collect PQ-sized core samples for metallurgical testing. Kemetco Research Inc. in Richmond, British Columbia has been contracted to perform a comprehensive column leach testing program on composites and variability samples towards a preliminary feasibility-level study.

The testing has started with bench-top agitated oxidation and leach tests on intrusive and sedimentary composites that were assembled 7 years ago for previous studies. A few of these tests have been completed, and the results are presented in this report.

### **1.6.1 Comminution Indices**

Comminution parameters were determined during prior studies for the intrusive and sedimentary material samples with results shown in Table 1-3.

**Table 1-3: Measured Comminution Parameters for Metates Composites (by Hazen).**

<b>Comminution Parameter</b>	<b>Composite</b>	
	<b>Intrusive</b>	<b>Sedimentary</b>
CW <sub>i</sub> , kWh/t	13.2	15.7
RW <sub>i</sub> , kWh/t	16.7	16.4
BW <sub>i</sub> (100 mesh), kWh/t	13.3	12.3
Abrasion Index, A <sub>i</sub> , grams	0.052	0.041

### **1.6.2 Leach Test on Non-Oxidized Samples**

About half of the gold and three fifths of the silver in the Metates material is refractory to cyanide leaching. Table 1-4 below shows the average recovery of gold and silver from intrusive and sedimentary composites, as well as from flotation concentrates. The table shows the low gold and silver recoveries of untreated (unoxidized) composites or flotation concentrate. The significant improvement of gold recovery in the carbon-in-leach tests also indicates potential preg-borrowing in the sedimentary material.

**Table 1-4: Bottle Roll and Agitation Leach Tests on “Whole Ore” Samples and Rougher Flotation Concentrates**

<b>Bottle Roll Leach Tests, “Whole Ore,” P<sub>80</sub> = 100 microns, 96 hours</b>				
<i>Direct Cyanidation - 96 hours</i>	<b>Intrusive</b>		<b>Sedimentary</b>	
	<b>Au</b>	<b>Ag</b>	<b>Au</b>	<b>Ag</b>
Extraction %	52.7	28.5	9.0	32.6
Residue g/t	0.41	8.28	0.62	19.32
Calc. Head g/t	0.86	11.58	0.68	28.66
<i>Carbon-In-Leach (CIL) - 96 hours</i>	<b>Intrusive</b>		<b>Sedimentary</b>	
	<b>Au</b>	<b>Ag</b>	<b>Au</b>	<b>Ag</b>
Extraction %	47.6	25.1	49.0	39.7
Residue g/t	0.49	11.61	0.37	15.38
Calc. Head g/t	0.93	15.49	0.73	25.52

<b>Agitation CIL Tests, Rougher Flotation Concentrate, P<sub>80</sub> = 212 microns, 48 hours</b>				
<i>Carbon-In-Leach - 48 hours</i>	<b>Intrusive</b>		<b>Sedimentary</b>	
	<b>Au</b>	<b>Ag</b>	<b>Au</b>	<b>Ag</b>
Extraction %	57.3	43.6	37.3	39.7
Residue g/t	2.06	23.83	3.36	110.74
Calc. Head g/t	4.82	42.24	5.36	183.68

The insoluble gold and silver are believed to be encapsulated in pyrite, arsenian pyrite and arsenopyrite. The sulphide needs to be oxidized to liberate the encapsulated values to achieve economic recoveries.

### 1.6.3 Current Metallurgical Testing

A comprehensive testing program has been developed to determine the operating parameters for the planned heap leach operations at Metates. This includes baseline agitated leach and column leach tests to establish the baseline recoveries of gold and silver from intrusive, intrusive breccia, and sedimentary sample composites. Baseline agitated oxidation tests on ground materials are also included to establish the amenability of the materials to oxidation. A series of column leach tests will be performed on intrusive, intrusive breccia, and sedimentary composites to determine oxidation chemical conditions, oxidation times and crush size.

### 1.6.4 Agitated Oxidation and Leach Tests

The same intrusive composite sample as in the previous studies were used as the initial sample to determine the amenability of “whole ore” to oxidation in an agitated alkaline system with aeration. The intrusive composite was ground to 80% finer than (P<sub>80</sub>) 74 microns, and oxidized in an aerated and agitated vessel. The samples were then leached in cyanide in agitated and aerated vessels. The results of the bench-top tests are shown in Table 1-5.

The cyanide soluble gold and silver in the intrusive composite are in line with previous observations from “whole-ore” and concentrates. After oxidation to 47%, Au and Ag recoveries increased to 83% and 82%, respectively. These quick tests indicate that intrusive samples can be oxidized in alkaline environment under atmospheric conditions.

**Table 1-5: Baseline Leach Testing of Intrusive Composite Materials**

Agitated Leach Tests, "Whole Ore", P <sub>80</sub> = 74 microns, 48 hours						
Sulphide Sulphur Oxidation, %	Unoxidized		18.4%		46.8%	
	Au	Ag	Au	Ag	Au	Ag
Extraction %	64.6	48.5	53.5	68.1	82.8	82.2
Residue g/t	0.31	6.97	0.45	2.85	0.15	1.84
Head g/t	0.87	13.4	0.87	13.4	0.87	13.4

**1.6.5 Column Oxidation and Leach Sighter Tests**

Column oxidation and leach tests are being conducted in 6-inch diameter by 8-foot columns made of polycarbonate plastic. During the oxidation phase, alkaline solution is introduced at the top of the column at a rate of about 1 liter per day. Air is injected at the bottom of the column to provide oxygen to the oxidation reaction. The composite being tested was crushed to a nominal size of P<sub>80</sub> = 13 mm.

Figure 1-2 below are four pictures of the intrusive column from the May 18, 2021 (start of the test) to August 11, 2021. The series of pictures shows how the composite changed in color over time from gray to yellow-brown as it is being oxidized.



**Figure 1-2: Column of Intrusive Composite Sample Under Oxidation**

The degree of oxidation is being monitored by the total sulphur collected in the solutions every day. Correction was made for the initial sulfate content of the composite that reported with the sulphur going into solution due to oxidation.

#### **1.6.6 Metallurgical Testing Plan for Prefeasibility Study**

The focus of the testing program is intrusive material followed by intrusive breccia material, both obtained from the 2021 PQ core drilling. Sedimentary materials, which are not currently in scope of this study, will also be subjected to a limited number of tests to establish possible metallurgical responses.

Baseline tests will include agitated oxidation and leach tests on ground composites (74 microns) and column leach tests on unoxidized composites at ½-inch (-13 mm) crush.

A series of column leach tests will comprise the main body of the test work. Column oxidation tests will be conducted using a range of oxidation times from 60 days to 180 days at ½-inch crush. These tests aim to establish oxidation kinetics for each material type. Column oxidation tests will also be conducted at 1-inch crush at a chosen oxidation time to determine the effect of crush size. After oxidation, all columns will then be subjected to standard column leach test using cyanide solution.

#### **1.6.7 Gold and Silver Recoveries**

Based on previous metallurgical testing and current baseline testing, Chesapeake is targeting recoveries of 70% Au and 75% Ag for massive intrusive and intrusive breccia materials. To attain these recoveries, the estimated degree of sulphide sulphur oxidation would need to range from 30 to 50%, depending on sulphide sulphur content and mineralogy of the materials.

### **1.7 MINERAL RESOURCE**

Table 1-6 presents the mineral resource estimate for the Metates Project. Measured and indicated mineral resource amounts to 1.30 billion tonnes at 0.47 grams per tonne (g/t) gold and 12.9 g/t silver for 19.8 million troy ounces (Moz) of contained gold and 542.0 Moz of contained silver. Inferred mineral resource is an additional 62.2 million tonnes (Mt) at 0.32 g/t gold and 9.0 g/t silver for 640,000 ounces contained gold and 18.0 Moz of contained silver.

The mineral resource is broadly divided into mineral resources that are intrusive hosted and mineral resources that are sediment hosted. In terms of measured and indicated mineral resource tonnes, about 80% of the mineral resources are sediment hosted and 20% intrusive hosted. Due to higher gold grade, the intrusive hosted mineral resources account for 27% of the contained gold ounces.

The mineral resources are based on a block model developed by IMC during July 2014. The results from the 2021 PQ core drilling have not yet been included in an updated mineral resource.

The measured, indicated, and inferred mineral resources reported herein are contained within a floating cone pit shell and are compliant with the “reasonable prospects for economic extraction” clauses of the Canadian NI 43-101 regulations. The mineral resource cone shell is based on a gold price of US\$1600 per ounce and a silver price of US\$20 per ounce.

The mineral resources are based on an equivalent gold cut-off grade of 0.26 g/t where:

$$\text{Gold Equivalent} = \text{Gold} + \text{Silver} / 74.67$$

The gold equivalent calculation accounts for all the relevant price and recovery parameters. Measured, indicated, and inferred mineral resources were allowed to contribute to the economics for the mineral resource cone shell.

**Table 1-6: Mineral Resource**

Resource Category	Mtonnes	Gold Eq. (g/t)	Gold (g/t)	Silver (g/t)	Gold (moz)	Silver (moz)
Measured Mineral Resource	395.4	0.79	0.59	15.5	7.44	197.3
Intrusive Host	103.1	0.98	0.76	16.5	2.52	54.6
Sediment Host	292.4	0.73	0.52	15.2	4.92	142.7
Indicated Mineral Resource	907.0	0.58	0.42	11.8	12.36	344.7
Intrusive Host	146.0	0.76	0.60	11.9	2.79	55.9
Sediment Host	761.1	0.55	0.39	11.8	9.57	288.7
Measured/Indicated Resource	1,302.4	0.65	0.47	12.9	19.80	542.0
Intrusive Host	249.0	0.85	0.66	13.8	5.32	110.6
Sediment Host	1,053.4	0.60	0.43	12.7	14.48	431.4
Inferred Mineral Resource	62.2	0.44	0.32	9.0	0.64	18.0
Intrusive Host	3.4	0.51	0.43	6.0	0.05	0.7
Sediment Host	58.8	0.44	0.32	9.2	0.60	17.3

Notes:

1. The Mineral Resources have an effective date of 18 May 2021 and the estimate was prepared using the definitions in CIM Definition Standards (10 May 2014).
2. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
4. Mineral Resources are based on prices of US\$ 1600/oz gold and US\$ 20/oz silver.
5. Mineral Resources are based on a gold equivalent cut-off grade of 0.26 g/t.
6. The gold equivalent value is calculated as follows:  

$$\text{Gold Equivalent (g/t)} = \text{Gold (g/t)} + \text{Silver (g/t)} / 74.67$$
 based on gold recovery of 70% and silver recovery of 75%.
7. Table 14-2 accompanies this Mineral Resource statement and shows all relevant parameters.
8. Mineral Resources are reported in relation to a conceptual constraining pit shell in order to demonstrate reasonable prospects for eventual economic extraction, as required by the definition of Mineral Resource in NI 43-101; mineralization lying outside of the pit shell is excluded from the Mineral Resource.

## 1.8 MINING METHODS

The Metates mine will be a conventional open pit mine. Mine operations will consist of drilling holes with medium diameter (approximately 20.3 cm) blast holes, blasting with emulsions and ANFO (ammonium nitrate/fuel oil) depending on water conditions, and loading plant feed into large off-road trucks with hydraulic shovels and wheel loaders. Plant feed will be delivered to the primary crusher and waste to various waste storage facilities. The Metates mineral resource is broadly divided into two types: intrusive-hosted and sedimentary-hosted. The mine plan for this study only considered the intrusive-hosted mineralization as potential plant feed. There will be a stockpile for sedimentary-hosted resource that is not considered plant feed for this study. There will also be a low-grade stockpile facility to store marginal grade intrusive material for processing at the end of commercial pit operations. There will be a fleet of track dozers, rubber-tired dozers, motor graders, and water trucks to maintain the working areas of the pit, waste storage areas, and haul roads.

A mine plan was developed to supply plant feed to a crushing plant with the capacity to process 15,000 tpd (5,475 ktpy). After crushing, the material is placed on a pad to allow it to oxidize after which it is transferred to a permanent pad for cyanide leaching. The mine is scheduled to operate two 12-hour shifts per day for 365 days per year.

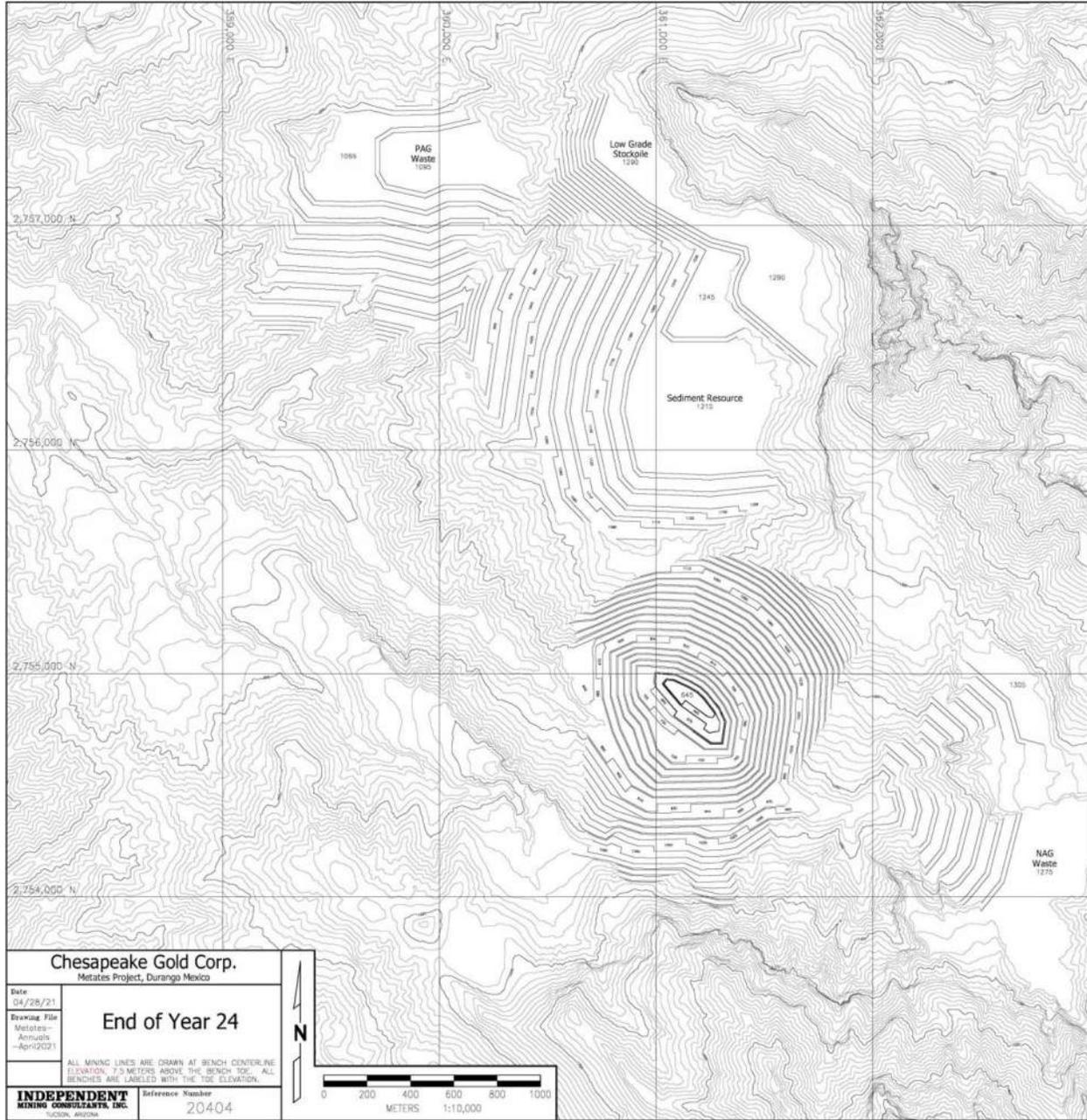
Based on the mining plan developed for this study, the commercial life of the project is 31 years after a brief preproduction period. Total mineral resource processed is 166.1 Mt at 0.756 g/t gold and 15.71 g/t silver. This amounts to 4.04 Moz of contained gold and 83.9 Moz of contained silver. Only measured and indicated mineral resource is considered for this study. Inferred intrusive mineral resource in the pit is only half a million tonnes and is treated as waste. However, this PEA is preliminary in nature and there is no guarantee that the results of this study will be realized or that the mineral resources will be converted to mineral reserves.

Figure 1-3 shows the final pit and the various waste storage areas and stockpiles. These include the following:

- The sediment resource stockpile, north of the pit, contains of 207.4 Mt at 0.40 g/t gold and 18.4 g/t silver. This is 2.65 Moz of contained gold and 122.6 Moz of contained silver. As discussed above, this material is not processed for this current study.
- The NAG (non-acid generating) waste storage area east of the pit contains 42.9 Mt. This facility contains the post mineral volcanic rocks.
- The PAG (potentially acid generating) waste storage area northwest of the pit contains 117.6 Mt. This is composed of mine waste in intrusive and sedimentary rock, other than the sedimentary resource stockpile which would also be considered as PAG.
- The low-grade stockpile, north of the sedimentary resource stockpile, contains 38.9 Mt at 0.37 g/t gold and 15.0 g/t silver. This is 466,100 ounces of contained gold and 18.7 Moz of contained silver. This material is low grade intrusive hosted mineralization. This material is processed at the end of open pit operations.

The PAG and NAG waste storage areas, and the sedimentary resource stockpile, are developed in 30-m lifts at angle of repose (37°). There is a 35 m setback between lifts so the overall slope angle is 2.5H:1V, about 22°. It is anticipated that this is flat enough to make closure easier. The low-grade stockpile is at its angle of repose as it is not anticipated that it will be a permanent facility.

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**Figure 1-3: Waste Storage Areas and Stockpiles, IMC 2021**

## **1.9 RECOVERY METHODS**

The planned Metates heap leach operation has a nominal capacity of 15,000 tpd at an overall availability of 90%.

The overall processing scheme would be to crush the material to a  $P_{80}$  of 13 mm, oxidize it on an on-off pad, and leach it with cyanide on a dedicated pad. A simplified flow sheet of the Metates process is shown in Figure 1-4. The overall site layout is shown in Figure 1-5.

### **1.9.1 Oxidation Pad Operations**

#### **1.9.1.1 Crushing**

The Metates crushing plant will comprise three stages of crushing, starting with a jaw crusher set at 130 mm (5 inches) for primary crushing, followed by a standard cone crusher for secondary crushing (closed side set at 30 mm), and finally a short-head cone crusher for tertiary crushing (closed side set at 20 mm). Particle sizes are controlled by double decked screens before the secondary crusher and before the tertiary crusher. The target  $P_{80}$  of the final product is 13 mm.

The crushed material will be fed to a rotating-drum mixer, where alkaline solution will be added to thoroughly mix into the crushed material. From here, the material will be transferred to the oxidation pad through a series of overland and grasshopper conveyors and a stacker.

#### **1.9.1.2 Oxidation On-Off Pad**

Oxidation of the mined and crushed material will be conducted on an on-off pad, as shown in Figure 1-5. It is 438 m wide and 961 m long, with a total useable area of 31.4 hectares. The pad is lined with HDPE and a 1-m layer of permeable aggregate as liner cover.

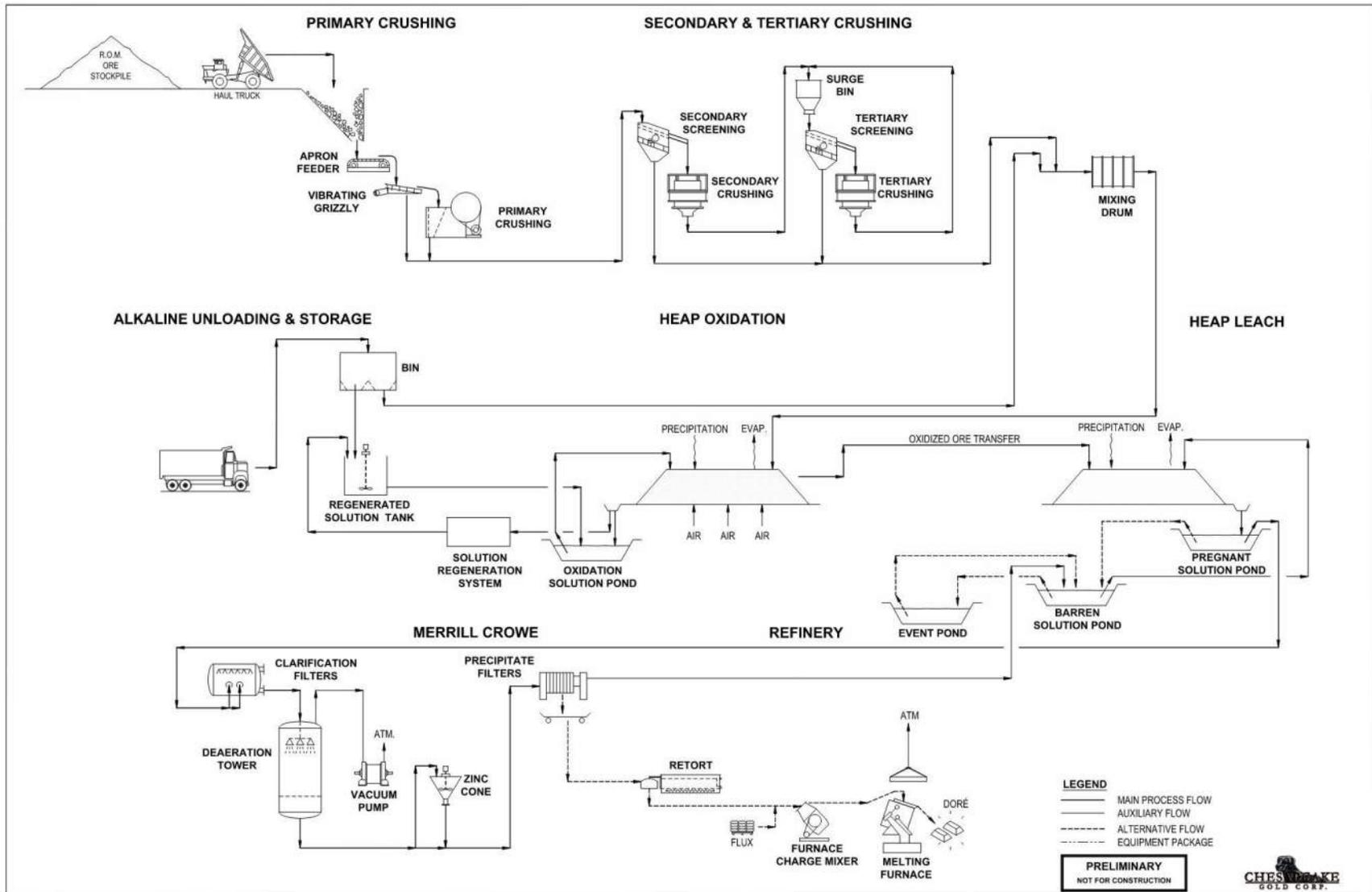
The oxidation pad will be divided into 13 cells along the length of the pad and separated with curbs that are built into the HDPE liner. One of the cells is always empty to serve as a buffer between the cell that is being stacked and the cell that is being emptied. Materials in each cell will spend from 90 to 180 days of the oxidation cycle, which will be described in more detail below.

Oxidation of sulphide sulphur contained in the material is achieved in a moist alkaline environment with oxygen as the ultimate source of oxidation potential. Air will be continuously replenished by active injection of air at the bottom of the oxidation heap. Alkali will also be replenished continuously or intermittently by irrigating alkaline solution at the top of the heap at rates mainly dictated by pH of the solution that drains out at the solution collection point and limited by the holding capacity of the material while maintaining heap permeability to air.

Sampling lysimeters will be installed in the oxidation heap to monitor oxygen level, pH, dissolved sulphur concentrations and possibly other parameters and evaluate the progress of the oxidation process.

The oxidation process may take from 90 to 180 days, depending on the material type being oxidized. Projections on oxidation times will be derived from testing of composites and variability samples and will be further refined from measurements during operations. When the target oxidation is achieved, the material will be rinsed with raw water, allowed to drain, and transferred to the dedicated leach pad for cyanide heap leaching.

**METATES SULPHIDE HEAP LEACH PROJECT - PHASE 1**  
**FORM 43-101F1 TECHNICAL REPORT**



**Figure 1-4: Simplified Flow Sheet of the Metates Sulphide Heap Leach Project**

### 1.9.1.3 Solution Regeneration

The pH of the oxidation solutions coming from each cell will be monitored. Once the pH falls below a threshold pH, for example pH 9.5, solution from that cell will be diverted to the solution regeneration system. The rest of the solution (with pH above the threshold) will be recycled to the top of the oxidation stacks through the oxidation solution pond.

The process of regenerating oxidation solutions is currently proprietary. The process neutralizes the acid produced during oxidation, thereby restoring the pH to 10.5 to 11.

### 1.9.2 Cyanide Heap Leaching and Merrill-Crowe Plant

Cyanide heap leaching of oxidized material will be conducted on a dedicated leach pad, which is currently designed as a valley-fill facility as shown in Figure 1-5. Oxidized material would be transferred from the oxidation pad to the dedicated heap leach pad by a system of overland conveyors, portable conveyors, and a radial stacker. The planned lift height is 20 feet, but the stacker would stack up to 25 feet to allow for slump from the material's own weight.

The planned irrigation rate will be 10 liters per hour per cubic meter (L/h/m<sup>2</sup>) for up to 60 days of primary leach. Cyanide concentration will be from 1 to 1.5 kg/tonne of solution. Pregnant solution will collect at the bottom of the heap and flow by gravity to the pregnant solution pond, from where it will be pumped to the Merrill-Crowe plant.

A standard Merrill-Crowe zinc cementation plant is included in the design to recover gold and silver from the pregnant leach solution. The plant has a design capacity of 680 cubic meters per hour (m<sup>3</sup>/h) (3,000 gallons per minute [gpm]) of pregnant solution. Gold and silver precipitates will be filtered then dried in a retort to remove moisture and mercury. The filtered precipitates are finally smelted into doré bullions in a natural gas-fired melting furnace.

### 1.9.3 Reagents, Water and Power Consumption

The main reagents for the process are lime, soda ash and cyanide for the oxidation and leach stages; zinc dust, lead nitrate, diatomaceous earth and smelting fluxes for Merrill-Crowe and refinery; and antiscalant and flocculant where required. Consumption rates for the reagents are presented in Section 13.

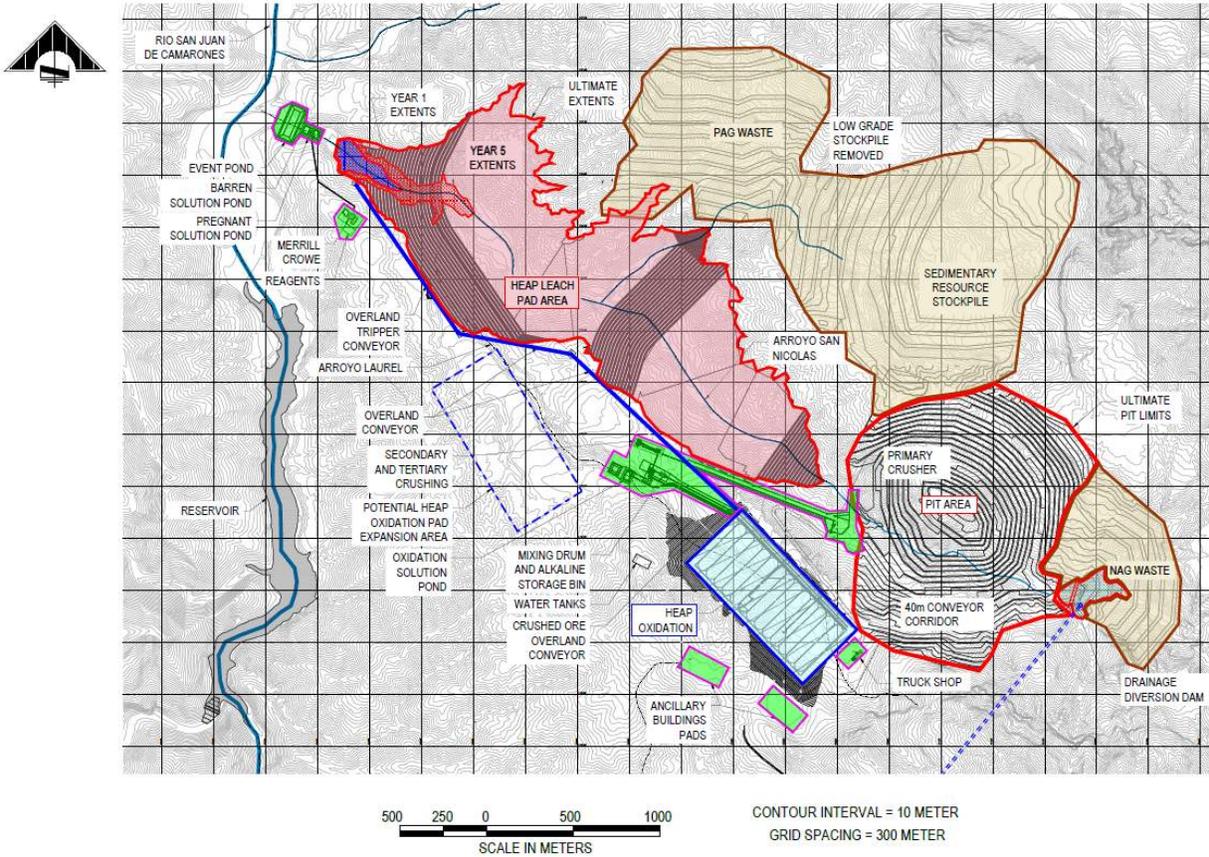
The Metates process plant is projected to require 74 m<sup>3</sup>/h of raw water makeup to sustain the operation. In addition, an estimated 20 m<sup>3</sup>/h of raw water for mine dust control and 1.25 m<sup>3</sup>/h for potable water are allocated, for a total consumption of 95 m<sup>3</sup>/h.

The total connected power load is 11,691 kilowatts (kW), of which 7,742 kW is drawn in a typical year. This translates to about 11 kWh/tonne of material processed or US\$ 1.11/tonne in power cost. Details of the power consumption are discussed in Section 18.

## 1.10 PROJECT INFRASTRUCTURE

### 1.10.1 Site Layouts

The general arrangement and basic operational components for the Metates site including the open pit, oxidation heap, heap leach pad, process facilities and waste dumps are shown on Figure 1-5.



**Figure 1-5: General Arrangement of Open Pit, Stockpile and Waste Rock Dumps and Process Facilities**

### 1.10.2 Access Roads

Existing road access to the Metates sites is from the city of Durango, Durango State, via Federal Highway 23 about 170 km to the town of Santiago Papasquiaro, then west on Federal Highway 36 for about 144 km to the village of Ojito de Camellones. From Ojito de Camellones, access to the Metates site is then via about 50 km of unpaved dirt roads of variable quality (total road distance of about 364 km). This same road allows access via a spur road to the village of San Juan de Camarones while the main road extends to other villages in the area including Vascogil and San Miguel el Alto. Travel time from Metates to Santiago Papasquiaro, the closest location for goods and supplies, is about 5 hours with an additional 2 hours to reach Durango City.

This road access will be used for hauling in heavy equipment to the Metates site including haul trucks and shovels, and crushing equipment. As such, the existing bridges, overpasses and unpaved portions of the road will need to be evaluated and upgraded as required to satisfy the requirements for the anticipated use. Design considerations would include weight capacities, design speed of no more than 60 km/hour with a standard maximum grade of 10% with a few sections of steeper grades in switchback conditions, normal minimum curve radius of 120 m with a 20 m minimum radius in switchback conditions, drainage basins, culverts, and at-grade (“vado”) crossings.

Seasonal access to the Metates site from Sinaloa State is also possible during low-water flows in the Rio San Lorenzo and tributaries (typically December to July). Paved road access from the cities of Mazatlán or Culiacán is possible to the town of Cosalá. A series of variably improved dirt roads extend northeast from Cosalá to a crossing on the Rio San Lorenzo where a primitive road then follows the river upstream to the Rio San Juan de Camarones where the road

continues up to the Metates site. This access requires multiple river crossings but is a travel distance of only about 106 km from Cosalá to Metates. The road access between Cosalá and Metates might be locally improved to provide an alternate access route.

### **1.10.3 Water Supply, Reservoir, and Distribution**

One of the most critical elements of the Metates Project is the establishment of an adequate supply of fresh water to support a wide range of operational demands.

Water supply and conveyance at the Metates Project is a combination of surface and groundwater abstraction from different sources. Water must be stored during periods of surplus to be used during times of deficit and geography dictates the locations of these storage facilities without regard to project convenience.

The main fresh water supply reservoir will be constructed by Year -1 in the southwest section of the project area within the main Rio San Juan de Camarones drainage just downstream of the confluence with the Arroyo Camarones. The reservoir will impound water from the Rio San Juan as well as water collected by the Mine pit diversion dam and diverted to the Arroyo Camarones via the diversion tunnel. The total height of the dam will be approximately 32 m from the downstream toe elevation of 540 m to the crest elevation of 572 m. The downstream and upstream slopes are 2.5H:1V and 2H:1V, respectively. A cut-off trench will be excavated under the upstream toe to allow for the alluvium to be removed (Ausenco, 2015d).

The dam creates a reservoir to provide storage for 4.0 million cubic meters (Mm<sup>3</sup>) of water by Year -1 including 0.5 Mm<sup>3</sup> of dead-load storage for sediment build up. To maintain a 3.5 Mm<sup>3</sup> storage capacity year-round, yearly maintenance removal of stream sediments will be required as needed during the dry season.

The reservoir level and the water available will fluctuate, dropping down in dry seasons and increasing in wet seasons with anticipated non-contact water spillway overflows through most of the wet season months. Water in the reservoir will be pumped to the plant area for use in operations, primarily as fresh water supply.

### **1.10.4 Power Supply and Distribution**

Electrical power for the Metates mine will be transmitted along a newly constructed 115 kilovolt (kV) power line that will tie into the existing CFE grid at a substation to be constructed near the Ciénega II substation. The 115 kV line will extend approximately 20 km to the southwest to the Metates site and once complete the line will be turned over to the CFE. Completion of the power supply infrastructure will also require a switching substation with 3 high voltage feeders at the existing power line, and a substation at the Metates site.

## **1.11 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL AND COMMUNITY IMPACTS**

Baseline environmental studies were undertaken by Cambior regarding surface water and groundwater, climate, air quality, biological conditions, and archaeology. In addition, numerous samples of mine rock (both resource material and waste) have been studied for their acid generating and acid neutralization potential. This information has been summarized in Sections 18 and 20 of this report. Golder Associates (Golder) of Lakewood, Colorado completed a re-evaluation of the 1997 studies using new samples from the 2008 drilling. The new information from Golder, along with extensive testing and additional lab and on-site testing of waste rocks and process related samples (tailing and neutralization residue), was summarized by Interrallogic, Inc. (ITL) of Golden, Colorado.

At the Metates site, baseline information on both surface and groundwater was collected by Cambior during the period 1994-1997. Schlumberger Water Services (SWS) established new surface water and groundwater sampling locations at Metates that cover the same general area as the older sampling sites and has also resampled the same groundwater wells established during the older period effectively extending the baseline monitoring timeframe. The goal of the

surface and groundwater sampling program is to characterize the pre-mining or pre-operations conditions at the Metates site. This information is required to be included as part of the permitting applications to the Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT).

Nine groundwater monitoring wells have been installed and are currently sampled regularly at the Metates site. Sampling of the groundwater sites generally involves collection and chemical analysis of groundwater as well as physical determination of groundwater level and other field parameters. Eight surface water sampling sites have been installed at the Metates site, five of which are regularly sampled. Sampling of surface water sites generally involves surface flow measurements as well as the collection and chemical analysis of surface waters and field parameters.

Environmental baseline data collection and reporting has been completed by M3 Mexicana for the Metates mine site. The environmental baseline work included a survey of the climate, geologic hazards, air quality, surface water runoff, vegetation, wildlife, federally designated conservation areas, socio-economic evaluation, and a review of cultural/historic sites. The results of the site visit, record review, and preliminary investigations did not reveal any significant environmental issues. There are expected to be certain at-risk species (Priority 1, 2, and 3) of vegetation and wildlife in the areas examined. Specific management plans will need to be developed to address each of the at-risk species encountered. Additional follow-up/confirmation investigations will be necessary as the specifics of the project are developed.

For the most part, federal laws regulate mining in Mexico, but there are some aspects subject to state or local approval. SEMARNAT is the chief agency regulating environmental matters in Mexico. The Comisión Nacional del Agua (CONAGUA) has authority over matters concerning water rights and activities that affect ground and surface water, including diversion of floodwaters. A permit application will be submitted for the Metates site access/infrastructure corridor created for the site. The main permits required for construction and operation include the Environmental Impact Manifest (MIA), Change of Land Use (CUS), and Risk Analysis (RA), all administered by SEMARNAT, and Water Rights, Explosives, and Cultural Resources, all administered by other federal agencies. Overall, permitting in Mexico is straightforward and governed by mandated processing timeframes. For the Metates Project, a permitting timeframe not exceeding 18 months is considered reasonable, based on current information.

Chesapeake has had extensive and on-going discussions with representatives from the Durango State Government. The state is very supportive of the future development of the Metates Project and has pledged to support Chesapeake in any way they can.

## **1.12 CAPITAL COST SUMMARY**

The capital costs for mining at Metates was developed by IMC. M3 was responsible for developing capital costs for the processing plant, power distribution, site preparation, etc. Chesapeake provided the owner's costs, including the Metates access road, other selected infrastructure, and land acquisition costs.

The consolidated mine and process facility initial capital costs are shown in Table 1-7. The preliminary economic assessment-level total estimate for the mine and process facility is US\$359 million, which includes a contingency of US\$63.5 million.

**Table 1-7: Consolidated Mine and Process Facility Initial Capital Costs**

	<b>Cost (US\$)</b>
<b>Metates Site</b>	
Mining Equipment & Mine Development	\$18,713
Crushing & Conveying	\$36,104
Ponds & Pads	\$28,404
Reagent/Regeneration System	\$11,677
Merrill-Crowe & Refinery	\$9,124
<b>Subtotal</b>	<b>\$104,022</b>
<b>Infrastructure</b>	
General Site/Earthworks/Access Roads	\$106,069
Electric Power	\$7,851
Water Supply	\$7,380
Ancillaries & Buildings	\$11,121
<b>Subtotal</b>	<b>\$132,421</b>
Freight, Taxes & Duties	\$4,060
<b>Total Direct Field Cost</b>	<b>\$240,503</b>
Indirects-EPCM, Commissioning & Spares	\$32,047
<b>Total On Site Constructed Cost</b>	<b>\$272,550</b>
Contingency	\$63,459
First Fills	\$6,000
Owner's Cost	\$17,200
<b>Total Capital Cost</b>	<b>\$359,209</b>

### 1.13 OPERATING COST SUMMARY

The operating costs were generated by IMC for all mining activities assuming contract mining. M3 estimated the costs for the processing operations and infrastructure.

Table 1-8 is the consolidated summary of the mine and process related operating costs for the Metates including support facilities. The life of mine operating cost for the Metates Project is estimated to be US\$ 18.29 per tonne of material processed. The equivalent AISC ("all-in sustaining cost") is US\$ 12.72 /tonne or US\$ 748.46/oz Au on a LOM basis when considering by-product credits for silver sales, sustaining costs, and other costs.

**Table 1-8: Consolidated Operating Cost Summary**

<b>Operating Costs</b>	<b>LOM Average</b>	
	<b>US\$/t processed</b>	<b>US\$/Oz Au</b>
Mining (including rehandle)	\$7.51	\$441.70
Processing (Crushing, Stacking, Oxidation, Leach, Merrill-Crowe)	\$8.05	\$473.65
Site Support	\$1.41	\$83.69
Profit Sharing	\$1.32	\$77.74
<b>Total Operating Cost</b>	<b>18.29</b>	<b>\$1,075.78</b>
Royalties (0.5% NSR & 7.5% Gov't EBITDA Royalty)	\$1.45	\$85.35
Doré Treatment Charges	\$0.17	\$10.15
By-Product Silver Credits	(\$8.25)	(\$485.31)
<b>Total Cash Cost</b>	<b>\$11.66</b>	<b>\$685.97</b>
Sustaining Capital, Reclamation & Closure	\$1.06	\$62.49
<b>All-In Sustaining Cost (AISC)</b>	<b>\$12.72</b>	<b>\$748.46</b>

**1.14 ECONOMIC ANALYSIS**

The Metates Project economics were performed using a discounted cash flow approach, presenting the Net Present Value (NPV), Payback Period (time in years to recapture the initial capital investment) and the Internal Rate of Return (IRR). Annual cash flow projections were estimated over the life of the mine based on estimates of capital expenditures, production cost, and sale revenue.

Only measured and indicated mineral resource is considered for this study. Inferred intrusive mineral resource in the pit is only half a million tonnes and is treated as waste. The results of this PEA are preliminary in nature. There is no certainty that the results of this PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

The financial results were developed for three different metal price assumptions, namely base case, low case, and high case (spot price); these assumptions were provided to M3 by Chesapeake. The financial results are presented in Table 1-9.

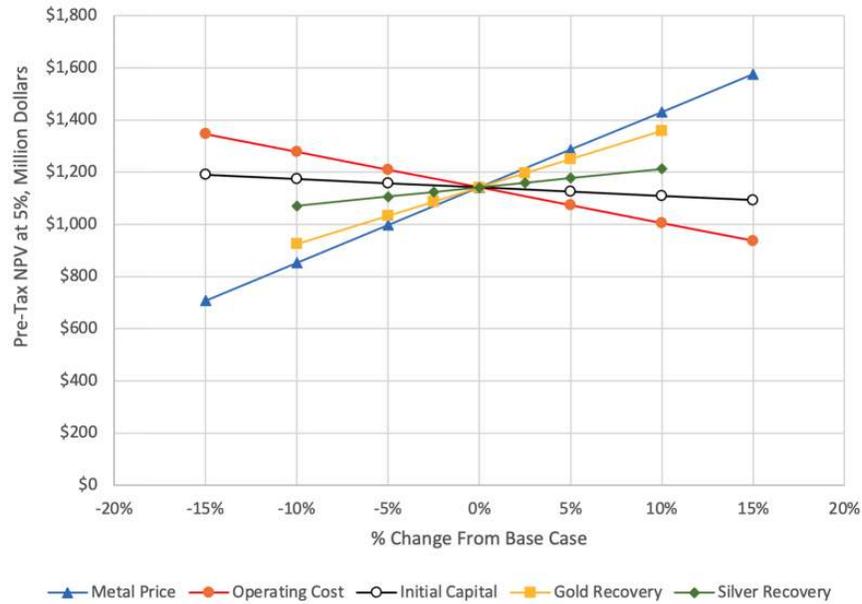
The financial parameters for the leveraged case were calculated assuming that 60% of the initial capital is debt financed at an annual interest rate of 7%, an upfront financing fee of 3%, and a seven-year term post commencement of commercial production with a balloon payment of 30% of the principal at maturity.

**Table 1-9: Financial Results Summary**

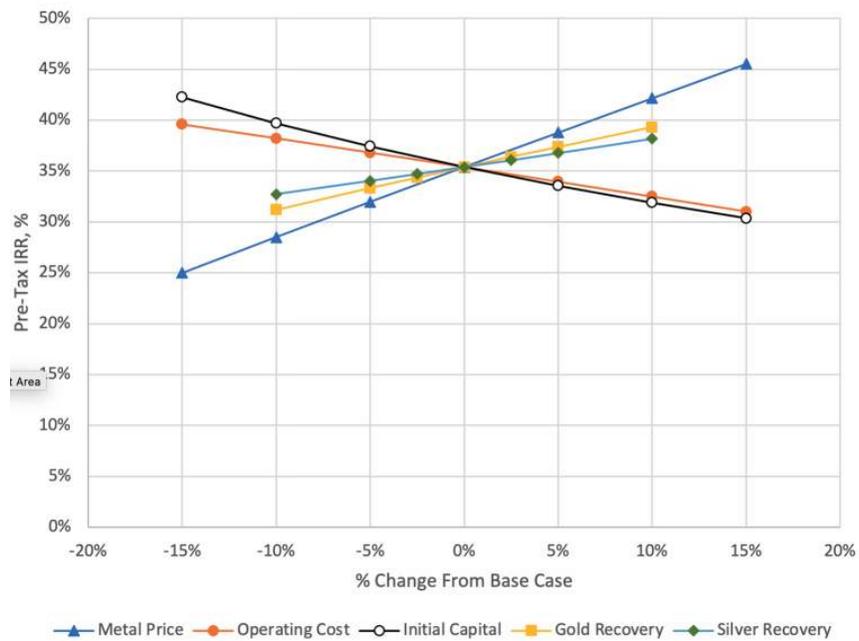
<b>Metal Price Assumptions</b>	<b>Low Case</b>	<b>Base Case</b>	<b>High (Spot)</b>
Gold Price (US\$ per troy ounce)	\$1,360	\$1,600	\$1,786
Silver Price (US\$ per troy ounce)	\$19	\$22	\$26
USD:CDN Exchange Rate	1:1.25		
USD:MEX Exchange Rate	1:20.05		
<b>Unlevered Pre-Tax Economic Indicators</b>			
NPV at 5% Million C\$	\$896	\$1,427	\$1,906
NPV at 5% Million US\$	\$717	\$1,142	\$1,525
IRR %	25.3	35.4	45.2
Payback, years	3.4	2.5	2.0
<b>Unlevered After-Tax Economic Indicators</b>			
NPV at 5% Million C\$	\$513	\$857	\$1,167
NPV at 5% Million US\$	\$410	\$685	\$933
IRR %	17.9	24.6	30.9
Payback, years	5.2	3.7	2.9
<b>Leveraged After-Tax Economic Indicators</b>			
NPV at 5% Million C\$	\$509	\$852	\$1,162
NPV at 5% Million US\$	\$407	\$682	\$930
IRR %	26.9	41.2	55.9
Payback, years	3.4	2.2	1.6

A sensitivity analysis was performed for the project using metal prices, operating cost, capital cost and metal recovery, on a pre-tax basis using the unlevered cash-flow model. The economic indicators tested against these factors are the NPV and IRR. The results of the analysis are shown in Figure 1-6 and Figure 1-7.

The recovery and the metal price factors have the greatest impact on the economic indicators. Initial capital cost has a low impact on NPV but has a greater impact on IRR.



**Figure 1-6: Sensitivity of Pre-Tax NPV @ 5% to Metal Prices, Operating Cost, Capital Cost and Recovery**



**Figure 1-7: Sensitivity of Pre-Tax IRR to Metal Prices, Operating Cost, Capital Cost and Recovery**

**1.15 CONCLUSIONS AND RECOMMENDATIONS**

**1.15.1 Conclusions**

Metates is an undeveloped world-class mineral deposit with minimal obstacles in the way of becoming a producing mine. Few deposits of this scale have development options with capital costs on the order of \$359 million, while carrying a pre-tax NPV of over US\$1 billion. Compared to the two previous PFS studies, this PEA has substantially lower initial capital, lower project execution risk and stronger financial indicators. The short payback period and early positive cash flow allow for flexibility in Metates future development, including the potential to capitalize on the low grade and sedimentary hosted mineralization and further exploration of the limits of the mineralization. It is recommended by M3 that Chesapeake advance the Metates Project toward the completion of an NI 43-101-compliant pre-feasibility study once conclusive results from the metallurgical testing program are available.

**1.15.2 Recommendations**

M3 recommends that Chesapeake advance the Metates Project toward the completion of a pre-feasibility study once results are available from the ongoing metallurgical testing program. The preferred process option is heap oxidation of crushed mineralized material, followed by cyanide extraction on a dedicated heap leach pad, with gold and silver recovered as doré completed through a Merrill-Crowe plant.

When the project is advanced to a pre-feasibility study, IMC recommends the resource block model be updated to incorporate the results of the five holes drilled during 2021. This would include updating the geologic interpretation, the grade estimates, and the mineral resource classification. Consideration will be given to an infill drill program focusing on the intrusive-hosted mineralization based on the higher than modeled grades noted in the recent core drilling program.

Current testing will determine oxidation kinetics, reagent consumption and metal recoveries for the planned prefeasibility study. Optimum conditions for economic recovery of gold and silver should be determined from the results for these tests. Testing is also planned to determine the variability of operating parameters and projected recoveries using a range of ore types and grades. M3 recommends that these plans be implemented towards a prefeasibility study.

If additional drilling information and/or core is required for various needs going forward, M3 recommends that drilling be performed in the area of planned material extraction for Years 1 – 5 in the current mine plan to increase confidence in the grades that will be processed early in the mine life.

The sedimentary material, mentioned throughout the report as a stockpiled material, holds potential as economically viable material if metallurgical processes are designed to realize its potential. Methods using autoclaves, CIL or RIL have been studied in the past and shown to be effective in improving the recovery of gold and silver from the sedimentary mineralization. While this potentially preg-borrowing material may not be suitable for conventional cyanide heap leach recovery, testwork is planned to further investigate possible treatment scenarios to realize its potential. Over the 31-year span of this processing plan, one of these treatment scenarios may provide a path for the sedimentary material to be reclaimed and processed. This is the driver for separating the mineralized sedimentary material stockpile from the other PAG material dump in the current site design plan.

Other recommendations to increase the accuracy of the study and optimize the economics of the project are detailed in Section 26. These include additional geotechnical investigations, optimization of earthworks particularly for the oxidation pad, more accurate vendor quotations, reagent sourcing, and others.

## **APPENDIX B**

### **CHESAPEAKE GOLD CORP. (the “Company”)**

#### **AUDIT COMMITTEE CHARTER**

##### **Mandate**

The primary function of the audit committee (the “**Committee**”) is to assist the Board of Directors (“**Board**”) in fulfilling its financial oversight responsibilities by reviewing the financial reports and other financial information provided by the Company to regulatory authorities and shareholders, the Company’s systems of internal controls regarding finance and accounting and the Company’s auditing, accounting and financial reporting processes. The Committee’s primary duties and responsibilities are to:

- serve as an independent and objective party to monitor the Company’s financial reporting and internal control systems and review the Company’s financial statements;
- review and appraise the performance of the Company’s external auditor; and
- provide an open avenue of communication among the Company’s auditor, financial and senior management and the Board of Directors.

##### **Composition**

The Committee shall be comprised of a minimum of three directors as determined by the Board, which directors may be “non-independent” directors so long as the Company is a “Venture Issuer” within the meaning of applicable securities legislation. A quorum of the Committee shall be a majority of the members. Each member will be a member of the Board. In the event of an equality of votes, the Chair of the Committee shall not have a second casting vote.

The members of the Committee shall be elected by the Board at its first meeting following the annual shareholders’ meeting. Unless a Chair is elected by the Board, the members of the Committee may designate a Chair by a majority vote of the full Committee membership.

##### **Meetings**

The Committee shall meet at least once annually, or more frequently as circumstances dictate or as may be prescribed by securities regulatory requirements. As part of its job to foster open communication, the Committee will meet at least annually with the Chief Financial Officer (or such person acting in that capacity) and the external auditor in separate sessions.

##### **Responsibilities and Duties**

To fulfill its responsibilities and duties, the Committee shall:

1. Documents/Reports Review
  - (a) review and update, if applicable or necessary, this Audit Committee Charter annually; and
  - (b) review the Company’s financial statements, MD&A and any annual and interim earnings press releases before the Company publicly discloses this information and any reports or other financial information (including quarterly financial statements), which are submitted to any governmental body, or to the public, including any certification, report, opinion, or review rendered by the external auditor.

## 2. External Auditor

- (a) review annually, the performance of the external auditor who shall be ultimately accountable to the Board and the Committee as representatives of the shareholders of the Company;
- (b) obtain annually, a formal written statement of external auditor setting forth all relationships between the external auditor and the Company;
- (c) review and discuss with the external auditor any disclosed relationships or services that may impact the objectivity and independence of the external auditor;
- (d) take, or recommend that the Board take, appropriate action to oversee the independence of the external auditor, including the resolution of disagreements between management and the external auditor regarding financial reporting;
- (e) recommend to the Board the selection and, where applicable, the replacement of the external auditor nominated annually for shareholder approval;
- (f) recommend to the Board the compensation to be paid to the external auditor;
- (g) at each meeting, where desired, consult with the external auditor, without the presence of management, about the quality of the Company's accounting principles, internal controls and the completeness and accuracy of the Company's financial statements;
- (h) review and approve the Company's hiring policies regarding partners, employees and former partners and employees of the present and former external auditor of the Company;
- (i) review with management and the external auditor the audit plan for the year-end financial statements; and
- (j) review and pre-approve all audit and audit-related services and the fees and other compensation related thereto, and any non-audit services, provided by the Company's external auditor. The pre-approval requirement is waived with respect to the provision of non-audit services if:
  - (i) the aggregate amount of all such non-audit services provided to the Company constitutes not more than five percent (5%) of the total amount of fees paid by the Company to its external auditor during the fiscal year in which the non-audit services are provided,
  - (ii) such services were not recognized by the Company at the time of the engagement to be non-audit services, and
  - (iii) such services are promptly brought to the attention of the Committee by the Company and approved prior to the completion of the audit by the Committee or by one or more members of the Committee who are members of the Board to whom authority to grant such approvals has been delegated by the Committee.

Provided the pre-approval of the non-audit services is presented to the Committee's first scheduled meeting following such approval, such authority may be delegated by the Committee to one or more independent members of the Committee.

## 3. Financial Reporting & Internal Controls

- (a) in consultation with the external auditor, review with management the integrity of the Company's financial reporting process, both internal and external;

- (b) consider the external auditor' judgements about the quality and appropriateness of the Company's accounting principles as applied in its financial reporting;
- (c) consider and approve, if appropriate, changes to the Company's auditing and accounting principles and practices as suggested by the external auditor and management;
- (d) review significant judgements made by management in the preparation of the financial statements and the view of the external auditor as to appropriateness of such judgements;
- (e) following completion of the annual audit, review separately with management and the external auditor any significant difficulties encountered during the course of the audit, including any restrictions on the scope of work or access to required information;
- (f) review any significant disagreement among management and the external auditor in connection with the preparation of the financial statements;
- (g) review with the external auditor and management the extent to which changes and improvements in financial or accounting practices have been implemented;
- (h) review any complaints or concerns about any questionable accounting, internal accounting controls or auditing matters;
- (i) review certification process;
- (j) establish a procedure for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters; and
- (k) establish a procedure for the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters.

4. Other

- (a) review any related-party transactions;
- (b) engage independent counsel and other advisors as it determines necessary to carry out its duties; and
- (c) set and pay compensation for any independent counsel and other advisors employed by the Committee.