2019 Annual Information Form

March 25, 2020
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1. IMPORTANT INFORMATION ABOUT THIS DOCUMENT

This annual information form (“AIF”) provides important information about Centerra Gold Inc. It describes our history, our markets, our operations and projects, our mineral reserves and resources, sustainability, our regulatory environment, the risks we face in our business and the market for our shares, among other things. Unless otherwise indicated, information in this AIF is provided as of December 31, 2019.

1.1 Reporting Currency

All dollar amounts in this AIF are expressed in United States dollars except as otherwise indicated. References to $ or dollars are to United States dollars and references to C$ are to Canadian dollars. For reporting purposes, we prepare our financial statements in United States dollars and in conformity with accounting principles generally accepted in Canada, being International Financial Reporting Standards, as issued by the International Accounting Standards Board.

The annual average exchange rate in 2019 for U.S. dollars to Canadian dollars, based on the Bank of Canada exchange rate at December 31, 2019 (the last business day), was one U.S. dollar per C$1.2988.

With respect to legal and regulatory claims or decisions made by certain governmental agencies or courts and described in this AIF, the amounts of the claims or decisions are reported in the U.S. dollar equivalent as at the date of such claim or decision.

1.2 Historic Metals Prices

The price of gold, copper and molybdenum fluctuates. The following table shows the average annual price for gold, copper and molybdenum from 2010 to 2019, and for the period up to March 24, 2020:

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Average Gold Price</td>
<td>1,225</td>
<td>1,572</td>
<td>1,669</td>
<td>1,411</td>
<td>1,266</td>
<td>1,160</td>
<td>1,251</td>
<td>1,258</td>
<td>1,268</td>
<td>1,393</td>
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<tr>
<td>($/oz)</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>Average Copper Price</td>
<td>3.42</td>
<td>4.00</td>
<td>3.61</td>
<td>3.32</td>
<td>3.11</td>
<td>2.49</td>
<td>2.21</td>
<td>2.80</td>
<td>2.96</td>
<td>2.72</td>
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<tr>
<td>($/lb.)</td>
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<tr>
<td>Average Molybdenum</td>
<td>15.71</td>
<td>15.49</td>
<td>12.74</td>
<td>10.30</td>
<td>11.38</td>
<td>6.63</td>
<td>6.50</td>
<td>8.19</td>
<td>11.93</td>
<td>11.35</td>
</tr>
<tr>
<td>Oxide Price ($/lb.)</td>
<td></td>
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<tr>
<td>(1) London Bullion Market annual average daily afternoon gold price fixing.</td>
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<td>(2) London Metal Exchange Copper Cash-Settlement.</td>
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<td>(3) Platts Metals Week.</td>
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</table>

1.3 Technical Information

The disclosure in this AIF of a scientific or technical nature for our Kumtor Mine, Mount Milligan Mine, Öksüt Mine, Kemess Project, and Greenstone projects are based on technical reports prepared for these properties in accordance with National Instrument 43-101 - Standards of Disclosure for Mineral Projects (“NI 43-101”) of the Canadian Securities Administrators. The technical information has been updated with current information where applicable. Information regarding qualified persons is as of the effective date of the relevant technical report.

- The technical report on the Kumtor Mine with an effective date of December 31, 2014 (filed on of March 20, 2015), (the “Kumtor Technical Report”) was prepared by Gordon D. Reid, Judy Wong, Tommaso Roberto Raponi, Kevin D’Souza, Pierre Landry, Jack Seto, and Al Chance. At the time of filing of the Kumtor Technical Report, each of these persons was a qualified person for purposes of NI 43-101 and Messrs. Seto and Chance were independent of Centerra - Mr. Seto was an employee of BGC Engineering Inc. and Mr. Chance was an employee with Golder Associates Ltd. (“Golder”).

- The technical report for the Mount Milligan Mine, with an effective date of December 31, 2019 (filed on March 26 2020), (the “Mount Milligan Technical Report”) was prepared by John Fitzgerald, C. Paul Jago, Berge Simonian, Slobodan Jankovic, Cathy Taylor, and Bruno Borntraeger. Each of these persons is a qualified person...
for purposes of NI 43-101. None of the authors are independent of Centerra, except for Mr. Borntraeger, who is a Specialist Geotechnical Engineer with Knight Piésold Ltd.

- The technical report for the Öksüt Mine, Turkey with an effective date of June 30, 2015 (filed on September 3, 2015) (the “Öksüt Technical Report”) was prepared by Gordon D. Reid, Peter Woodhouse, Malcolm Stallman, Mustafa Cihan, Pierre Landry, Tyler Hilkewich, Tommaso Roberto Raponi, Kevin D’Souza and Chris Sharpe. At the time of the filing of the Öksüt Technical Report, each of these persons was a qualified person for the purposes of NI 43-101, and none of these individuals were independent of Centerra at the time of the Öksüt Technical Report.

- The technical report for the Kemess underground project and Kemess east project, British Columbia, Canada prepared for AuRico Metals Inc. ("AuRico") with an effective date (and filing date) of July 14, 2017 (the “Kemess Technical Report”) was prepared by Serge Chevrier, Marianne Rosted, Stephen Rice, and Don Kidd, all from AMEC Foster Wheeler, Andrew Jennings, of Converyer Dynamics, Chad Yuhasz, Iouri Iakovlev, and Jarek Jakubec, all from SRK Consulting (Canada) Inc., Chris Struthers, of Struthers Technical Solutions, Dan Stinnetteof Mine Ventilation Services, David Kratochvil, of BioteQ Environmental Technologies; Kenneth Major. of KWM Consulting Inc., Rolf Schmitt, of ERM Consultants Canada, and Ross Hammett, and Alva Kuestermeyer, both from Golder. Each of these persons is a qualified person for the purposes of NI 43-101. All individuals were independent of AuRico at the time of filing of the Kemess Technical Report.

- The technical report for the Hardrock Project with an effective date of October 1, 2016 (filed on December 21, 2016) (the “Hardrock Technical Report”) was prepared by Louis-Pierre Gignac, Glen Schlyter, Martin Ménard, Rejean Sirois, Charley Murahwi, Eric Poirier, Pierre Roy, David G. Ritchie, Marc Rougie, and Craig Johnston. Each of these persons is a qualified person for the purposes of NI 43-101. At the time of filing, all individuals were independent of Centerra. Messrs. Gignac, Schlyter, Ménard, and Sirois were employees of G Mining Services Inc., Mr. Murahwi was an employee of Micon International Limited, Mr. Poirier was an employee with WSP Canada Inc., Mr. Roy was an employee with Soutex Inc., Mr. Ritchie was an employee of Amec Foster Wheeler, Mr. Rougie was an employee of Golder, and Mr. Johnston was an employee of Stantec Inc.

The technical reports have been filed on SEDAR at www.sedar.com. In the case of the Kemess Technical Report, this technical report was prepared for AuRico (prior to our acquisition which closed on January 8, 2018). The Kemess Technical Report can be found under the AuRico Metals Inc. profile on www.sedar.com. To the best of our knowledge, information and belief, there is no new material scientific or technical information that would make the disclosure of the mineral resources or mineral reserve on the Kemess Project inaccurate or misleading.

The 2019 production information and related scientific and technical information, and the 2020 production forecast and related scientific and technical information determined as at December 31, 2019, were prepared in accordance with the standards of the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") and NI 43-101 and were prepared, reviewed, verified and compiled by Centerra’s geological and mining staff. Gordon Reid, Professional Engineer, consultant and former Chief Operating Officer of Centerra, is the qualified person for the purpose of NI 43-101 for such information.

All exploration information and related scientific and technical information in this AIF regarding Centerra’s Kumtor exploration program was prepared in accordance with the standards of the CIM and NI 43-101 and were prepared, reviewed, verified and compiled by our geological and mining staff under the supervision of Boris Kotlyar, Certified Professional Geologist with The American Institute of Professional Geologists, Centerra’s Chief Geologist, Global Exploration, who is a qualified person for the purpose of NI 43-101.

All exploration information and related scientific and technical information in this AIF regarding Centerra’s Mount Milligan exploration program was prepared in accordance with the standards of the CIM and NI 43-101 and were prepared, reviewed, verified and compiled by Paul Jago, Registered Professional Geologist with Engineers & Geoscientists British Columbia, Exploration Manager at Centerra Gold Services Inc., who is a qualified person for the purpose of NI 43-101.

The mineral reserve and resource estimates, mine production and all other scientific and technical information in this AIF not otherwise noted above, were prepared in accordance with the standards of the CIM and NI 43-101, and were reviewed and approved by Mr. John Fitzgerald, P. Eng. Centerra’s Vice President, Projects and Technical Services, who is a qualified person for the purpose of NI 43-101.

Sample preparation, analytical techniques, laboratories used and quality assurance-quality control protocols used are done consistent with industry standards and independent certified assay labs are used with the exception of the Kumtor
Mine and the Mount Milligan Mine, as described in the Kumtor Technical Report and the Mount Milligan Technical Reports respectively. The qualified persons for such sections are those set out in the respective technical reports.

Sample preparation, analytical techniques, laboratories used and quality assurance-quality control protocols used are done consistent with industry standards and independent certified assay labs are used with the exception of the Kumtor Mine and the Mount Milligan Mine, as described in the Kumtor Technical Report and the Mount Milligan Technical Reports respectively. The qualified persons for such sections are those set out in the respective Technical Report.

A glossary of geological and mining terms has been included at the end of this AIF for ease of reference.

1.4 Forward-Looking Information

This AIF and the documents incorporated by reference into this AIF contain statements and information about our expectations for the future. When we discuss our strategy, plans, proposed exploration and development activities and future financial and operating performance, or other things that have not yet taken place, we are making statements considered to be forward-looking information under Canadian securities laws.

Key things to understand about the forward-looking information in this AIF:

- It typically includes words and phrases about the future, such as plans, expects or does not expect, budget, forecasts, projections, anticipate or does not anticipate, believe, intend, potential, strategy, schedule, estimates, contemplates, targets, and similar expressions or statements that certain actions, events or results may, could, would, might or will be taken, occur or be achieved.
- It is based on a number of material assumptions, including but not limited to those we have listed below, which may prove to be incorrect.
- Actual results and events may be significantly different from what we currently expect, because of the risks associated with our business. We list a number of these material risks below. We recommend you also review other parts of this document, including “Risk Factors” starting on page 100, which include a more detailed discussion of other material risks that could cause our actual results to differ from current expectations.

Forward-looking information is designed to help you understand management’s current views of our near and longer-term prospects. It may not be appropriate for other purposes. We will not necessarily update this forward-looking information unless we are required to by securities laws.

Examples of Forward-Looking Information in this AIF

- Expectations regarding the outcome of necessary studies and consultations with potentially impacted Indigenous groups to work towards a life-of-mine amendment to the Mount Milligan Environmental Assessment Certificate to address water sufficiency issues at Mount Milligan.
- Expectations regarding the timing for completing construction at the Öksüt Mine, successfully commissioning the project, and transitioning to operations.
- Expected gold and copper production, expected grades, recoveries and forecasted sustaining costs per ounce and forecasted all-in sustaining unit costs (on a by-product basis, or on a co-product basis) per ounce of production at our Kumtor Mine, Mount Milligan Mine and Öksüt Mine for 2020, and life of mine production estimates for projects that are in construction or in development (Kemess and Greenstone).
- Estimated growth capital, sustaining capital, decommissioning and reclamation costs at our properties.
- Our exploration plans for 2020.
- Our expectations regarding pit wall stability, the continued success of the buttress, and the results of the dewatering program at Kumtor Mine.
- Our expectations regarding ice and waste rock dump movement at Kumtor Mine and our ability to continue managing them.
- Our expectations regarding future growth, results of operations and financial performance.
- Our expectations as to the future business and political environment in the jurisdictions where we operate.
- Our business prospects.
- The ability to deliver our concentrate to port in a timely manner.
- No labour disruptions at the mine or in our delivery pipeline.
Material Assumptions

- There are no material disruption in Centerra’s operations as a result of the COVID-19 pandemic, including illness in workforce, no shutdown of mining, processing and other operations, no adverse disruption on supply chains and transportation networks used to deliver products to customers;

- Centerra and our applicable subsidiaries throughout the year continue to meet the terms of our corporate credit facility in order to maintain current borrowing amounts and compliance with the financial covenants contained therein.

- That our positive working relationship with the Kyrgyz Republic Government (the “Kyrgyz Government”) continues.

- The mine plans, expertise and related permits and authorizations at the Kumtor Mine which have been received to date for 2020 are not withdrawn and that any further approvals are obtained in a timely manner from relevant Kyrgyz Governmental agencies.

- No unplanned delays in, or interruption of, scheduled production from our mines, including due to climate/weather conditions, pandemics, political or civil unrest, natural phenomena, regulatory or political disputes, equipment breakdown or other developmental and operational risks.

- Any sanctions imposed on Russian entities do not have a negative effect on the costs or availability of inputs or equipment to the Kumtor Mine.

- The movement in the waste rock dumps do not accelerate and will be managed to ensure continued safe operations, without impact to gold production.

- The buttress constructed at the bottom of the Davidov glacier continues to function as planned.

- The Company is able to manage the risks associated with the increased height of the pit walls at Kumtor Mine.

- The dewatering program at Kumtor Mine continues to produce the expected results and the water management system works as planned.

- The pit walls at our operations remain stable.

- The water levels in the central pit at Kumtor Mine can be successfully managed to ensure continued access to the pit bottom.

- The resource block model at our operating sites reconciles as expected against production.

- The Mount Milligan mill (processing facility) continues to have access to sufficient water supplies to operate year-round at the intended capacity.

- Grades and recoveries at our operating properties remain consistent with the 2020 production plan to achieve the forecast gold and copper production.

- Our mineral processing facilities at our operations operate as expected, including that there are no unplanned suspension of operations due to (among other things), mechanical or technical performance issues.

- There are no changes to any existing agreements or relationships with potentially impacted Indigenous groups which would materially and adversely impact our operations, and no demands are received from such groups to enter into new agreements which would materially and adversely impact our operations.

- There are no unfavourable changes to concentrate sales arrangements at Mount Milligan Mine and the roasting arrangements at the Langeloth facility.

- There are no adverse regulatory changes affecting any of our operations.

- Exchange rates, prices of key consumables, costs of power, labour, material costs, supplies and services (including transport), water usage fees, and any other cost assumptions at all operations and projects of the Company are not significantly higher than prices assumed in planning.

- Spot and realized prices for gold, copper and molybdenum will be as expected.

- Tax rates, foreign currency exchange rates, and interest rates will be as expected.

- Our growth capital, sustaining capital, decommissioning and reclamation estimates are accurate.

- Our mineral reserve and resource estimates, and the assumptions upon which they are based are accurate.

- No labour related disruptions occur at any of our operations.

- Our counterparties in any of our sales contracts for gold doré bars, copper/gold concentrate, or molybdenum products meet their contractual obligations to us.
Material Risks

- The political risks associated with some of our operations and the risk of resource nationalism in these jurisdictions.
- The ability of Centerra to make payments on its corporate credit facility depends on the cash flow of subsidiaries.
- Changes in, or more aggressive enforcement of, laws, regulations and government practices relating to mining and exploration activities.
- Community activism may influence laws and regulations, result in increased contributory demands, or in business interruption.
- Permits, approvals and commissions necessary for operations/or and exploration activities may not be received in a timely manner, or at all, or may be withdrawn.
- Our relationship with local communities may affect our existing operations and development projects.
- Indigenous claims and consultation issues.
- Litigation.
- Defects in title in connection with our properties.
- Our ability to enforce our legal rights.
- Risks associated with having a significant shareholder.
- Possible director conflicts of interest.
- Anti-corruption legislation.
- Our exploration and development activities may not be successful.
- We may not be able to replace our mineral reserves.
- Risks associated with the conduct of joint ventures/partnerships, including experiencing difficulties with our partners.
- Our mineral reserve and mineral resource estimates may be imprecise.
- Our production and cost estimates may be inaccurate.
- Reputation risk and losing control over how we are perceived.
- Inability to grow our business or replace depleted reserves; not being able to integrate new businesses and assets that we acquire.
- Large fluctuations in the Company’s trading prices
- Ground movement at Kumtor Mine.
- Waste rock dump and ice movement at Kumtor Mine.
- Natural or man-made disasters.
- Competition for mineral acquisition opportunities.
- The sensitivity of our business to the volatility of gold and copper prices.
- The use of provisionally priced sales contracts could have a negative impact on our revenues.
- Our reliance on a few key customers for our products and the loss of any one key customer could reduce our revenues.
- Our commodity hedging activities involves risks relating to the price we receive for our products and involves counterparty risks.
- The sensitivity of our business to the volatility of fuel prices.
- The impact of currency fluctuations.
- The impact of global financial conditions.
- Our ability to obtain future financing, including possible impact of ESG ratings on accessing financing.
- The possibility of dilution if we raise funds through share issuances or convertible debt instruments.
- The impact of restrictive covenants in our credit facility.
- The adequacy of our insurance to mitigate operational and other risks.
- The impact of taxation in multiple jurisdictions.
- The effect of market conditions on our short-term investments.
- General operation and production risks relating to mining.
- Environmental, health and safety risks.
- Water management and oversight of tailings management facilities.
- Our operations may be exposed to a local epidemic and/or a widespread pandemic.
- Cyanide is used in our mining activities and unintentional discharges may occur.
- Our products may contain naturally occurring impurities and toxic substances that we do not fully remove or reduce.
• Management of the capacity shortfall at the tailings facility at the Kumtor Mine and Mount Milligan Mine.
• Availability of sufficient water supplies for our projects, particularly at our Mount Milligan Mine which experienced water shortages starting in 2017.
• Regulation of greenhouse gas emission may increase our costs.
• Substantial decommissioning and reclamation costs, including the fact that actual costs may be significantly higher than estimated.
• Construction, development and operations risks at our Öksüt Mine.

1.5 Non-GAAP Measures
This AIF contains non-GAAP financial measures: which do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other issuers, even as compared to other issuers who may be applying the World Gold Council guidelines, which can be found at http://www.gold.org.

We believe that the use of these non-GAAP measures will assist analysts, investors and other stakeholders of our Company in understanding the costs associated with producing gold and copper, understanding the economics of gold/copper mining, assessing our operating performance, our ability to generate free cash flow from current operations and to generate free cash flow on an overall Company basis, and for planning and forecasting of future periods. However, the measures do have limitations as analytical tools as they may be influenced by the point in the life cycle of a specific mine and the level of additional exploration or expenditures a company has to make to fully develop its properties. Accordingly, these non-GAAP measures should not be considered in isolation, or as a substitute for, analysis of our results as reported under GAAP.

The following is a description of the non-GAAP measures used in this AIF. The definitions are similar to the WGC's Guidance Note on these non-GAAP measures:

• All-in sustaining costs on a by-product basis per ounce sold include adjusted operating costs, the cash component of capitalized stripping costs, corporate general and administrative expenses, accretion expenses, and sustaining capital, net of copper and silver credits. The measure incorporates costs related to sustaining production. Copper and silver credits represent the expected revenue from the sale of these metals.
• All-in sustaining costs on a by-product basis per ounce sold including taxes, include revenue-based tax at Kumtor Mine and taxes (mining and income) at Mount Milligan Mine.
• All-in sustaining costs on a co-product basis per ounce of gold sold or per pound of copper sold, production costs are allocated between copper and gold based on production. To calculate the allocation of operating costs, copper production has been converted to ounces of gold equivalent using the copper production for the periods presented, as well as an average of the futures prices during the quotational pricing period for copper and gold sold from Mount Milligan. For 2019, 512 pounds of copper were equivalent to one ounce of gold.

A reconciliation of the non-GAAP measures used in this AIF is contained in our MD&A for the year ended December 31, 2019, which is available on SEDAR at www.sedar.com.
2. ABOUT CENTERRA

We are a Canadian-based gold mining company focused on operating, developing, exploring and acquiring gold properties in North America, Asia and other markets worldwide. Centerra is one of the largest western-based gold producers in Central Asia.

Our head office is in Toronto, Ontario. We also have offices in Bishkek, Kyrgyz Republic; Prince George, British Columbia (Canada); Ankara, Turkey; Littleton, Colorado, (USA); Langeloth, Pennsylvania (USA); and Challis, Idaho (USA).

We have approximately 3,650 employees.

We are publicly listed on the Toronto Stock Exchange (“TSX”) under the symbol CG.

2.1 Our Properties

The table below sets out our properties. We have two material properties – the Kumtor Mine in the Kyrgyz Republic, and the Mount Milligan Mine in British Columbia, Canada. We also have a third producing mine, the Öksüt Mine which began gold production in January 2020. We own a 100% interest in each of the following properties except for (i) the Hardrock Project (part of the greater Greenstone Gold property) in which we own a 50% interest, (ii) the Endako Mine in which we own a 75% joint venture interest (the remaining 25% is held by Sojitz Moly Resources, Inc., a subsidiary of Sojitz Corporation) (the “Endako Mine Joint Venture”), and (iii) optioned interests in various exploration projects which we are still in the process of earning.

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Location</th>
<th>Metal</th>
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<tbody>
<tr>
<td>Kumtor Mine</td>
<td>Kyrgyz Republic</td>
<td>Gold</td>
</tr>
<tr>
<td>Mount Milligan Mine</td>
<td>Canada</td>
<td>Gold/Copper</td>
</tr>
<tr>
<td>Öksüt Mine</td>
<td>Turkey</td>
<td>Gold</td>
</tr>
<tr>
<td>Kemess Project</td>
<td>Canada</td>
<td>Gold/Copper/Silver</td>
</tr>
<tr>
<td>Hardrock Project</td>
<td>Canada</td>
<td>Gold</td>
</tr>
<tr>
<td>Berg Properties</td>
<td>Canada</td>
<td>Copper/Molybdenum</td>
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<tr>
<td>Kizilkaya, Sivri Tepe, and Ziyarettepe Properties (in various stages of exploration)</td>
<td>Turkey</td>
<td>Gold</td>
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<td>Various options to earn interest on projects in Turkey, Canada, Mexico and Finland</td>
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<td>Gold/Copper</td>
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<tr>
<td>Thompson Creek Mine</td>
<td>United States</td>
<td>Molybdenum</td>
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<tr>
<td>Endako Mine</td>
<td>Canada</td>
<td>Molybdenum</td>
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We also own 100% of the Langeloth Metallurgical Facility which is located in Langeloth, Pennsylvania and processes molybdenum concentrate for third party producers.
2.2 Inter-Corporate Relationships

Our principal subsidiaries, along with their jurisdiction of incorporation, continuation or organization, are set out below as at December 31, 2019. Each of our principal subsidiaries are 100% owned, unless otherwise noted.

(1) Centerra was incorporated under the Canada Business Corporations Act by articles of incorporation dated November 7, 2002 under the name 4122216 Canada Limited. Centerra changed its name on December 13, 2002 to Kumtor Mountain Holdings Corporation, and on December 5, 2003 to Centerra Gold Inc.

(2) AuRico Canadian Royalties Holdings Inc. owns a 50% interest in Greenstone Gold Mines LP which through its managing partner, Greenstone Gold Mines GP Inc., owns the Greenstone Gold Property in Ontario. The Managing Partner is owned 50/50 by AuRico Canadian Royalties Holdings Inc. and its partner, Premier Gold Mines Limited.

(3) Centerra owns an indirect 75% joint venture interest in the Endako Mine.

(4) Other subsidiaries, including those through which we hold our interest in exploration properties (including those in which we are earning an optioned interest), have not been included in the above chart because (i) their respective assets represent less than 10% of the consolidated assets of Centerra, and less than 10% of the consolidated sales and operating revenue of Centerra; and (ii) the consolidated assets and revenues of such excluded subsidiaries are less than 20% of the consolidated assets and consolidated revenue of Centerra, respectively. These subsidiaries are wholly owned, directly or indirectly, by Centerra.

2.3 Recent Developments

The following is a summary of key developments over the past three years that have influenced the general development of our business. For further information regarding the developments, see the applicable section of this document dealing with the property.

Kumtor Mine

- In December 2019, the Kumtor Mine experienced a significant waste rock movement at the Lysii waste rock dump resulting in two employee fatalities. Open pit mining operations were halted and a search and rescue operation were commenced immediately to recover the Company’s employees. In January 2020, after an extensive search and in consultation with the families of the deceased Kumtor Mine employees, search efforts were terminated. Kumtor’s annual mine plans have been re-evaluated and after significant consultation with Kyrgyz Republic state authorities, Kumtor re-commenced mining operations. During this search period, Kumtor Mine continued with processing activities with the mill (processing facility) continuing to process stockpiled ore.

- Subsequent to the year end, on February 15, 2020, a Kumtor Mine employee succumbed to a fatal injury while operating an excavator, which tipped and then slipped down into a water-filled basin. An internal investigation has commenced, and management is working closely with the Kyrgyz Republic regulators and other state authorities to ascertain the cause of the incident.

- These two incidents at our Kumtor Mine and the loss of three of our colleagues have greatly saddened everyone at Centerra. We are fully committed to understanding the circumstances that led to these troubling safety incidents at Kumtor Mine so that so that we can take all necessary steps to prevent such incidents from happening in the future.

- In August 2019, we announced that all conditions precedent to the completion of the Kumtor Strategic Agreement had been satisfied or waived and that accordingly, the Kumtor Strategic Agreement and the obligations thereunder became effective. The Kumtor Strategic Agreement was a comprehensive settlement agreement entered into with the Kyrgyz Government which provided a resolution of substantially all existing arbitral and environmental claims, disputes, proceedings and court orders affecting the Kumtor Mine, and releases Centerra and our Kyrgyz Republic subsidiaries from future claims covering the same subject matter as the certain environmental claims. For further information, see “Centerra’s Properties – Operating Mines – Kumtor Mine – Kumtor Strategic Agreement”.

Mount Milligan Mine

- Since late December 2017, the Mount Milligan Mine has experienced a lack of sufficient water resources which have resulted in reduction and temporary suspension of processing operations. Temporary approvals and amendments to the Mount Milligan Environmental Assessment Certificate were obtained throughout 2018 and 2019 which allowed for restarting operations at partial capacity. Most recently, we obtained approval to pump water from Philip Lake, Meadows Creek and Rainbow Creek during open water season commencing in 2019 until November 30, 2021, and to pump from groundwater sources within a radius of approximately 6 kilometres of the Mount Milligan Mine tailings storage facility (“TSF”) for the life of the mine. The Company has undertaken the necessary studies and commenced consultation with potentially impacted Indigenous groups to work toward a further, longer-term water solution for the Mount Milligan Mine. In 2020, the Company does not expect any water constraints and expects to achieve an average daily throughput of approximately 55,000 tonnes per calendar day for the full year.

- In early 2020, Thompson Creek Metals Company Inc., the owner of the Mount Milligan Mine, received a notice of civil claims from H.R.S. Resources Corp. (“HRS”), the holder of a 2% production royalty at Mount Milligan. HRS claims that since November 2016 (when the royalty became payable) the Company has incorrectly calculated amounts payable under the production royalty agreement and has therefore underpaid amounts owing to HRS. The Company disputes the claim and believes it has calculated the royalty payments in accordance with the agreement. The Company believes that the potential exposure in relation to this claim, over what the Company has accrued, is not material.

Öksüt Mine

- Construction at the Öksüt Mine began in March 2018. As of December 31, 2019, construction was 89% complete, which is sufficiently completed to allow operational start-up of all required facilities.
On January 30, 2020, our Turkish subsidiary that owns the Öksüt Mine repaid and cancelled its Öksüt Project financing facility, which resulted in the release of $25 million in restricted cash. The Öksüt Mine achieved first gold pour on January 31, 2020.

Mongolia – Boroo and Gatsuurt Projects

On October 12, 2018, the Company completed the sale of its Mongolian business unit, including Boroo Gold LLC (which owns the Boroo Mine and related processing facility) and Centerra Gold Mongolia LLC (which owns the Gatsuurt Gold Project) to OZD ASIA PTE Ltd. for net proceeds of $35 million.

Greenstone Gold Property

In December 2019, the Company, through its wholly owned subsidiary, AuRico Canadian Royalty Holdings Inc. (“AuRico Holdings”) filed with the Ontario Superior Court of Justice a statement of claim against Greenstone Gold Mines G.P. Inc. (the “Greenstone Managing Partner”), Premier Gold Mines Hardrock Inc., a subsidiary of Premier Gold Mines Limited (“Premier”), and Premier’s nominees to the Greenstone Managing Partner’s board of directors (the “Greenstone Board”). Among other things, the claim relates to whether a report prepared by G-Mining Services Inc. on behalf of the Managing Partner constitutes a Feasibility Study under the amended and restated partnership agreement dated March 9, 2015 (the “Partnership Agreement”), and how the Greenstone Managing Partner and Premier responded to questions regarding the report that were raised by members of the Greenstone Board, AuRico Holdings and the independent third party expert retained by Centerra to review it. Statements of defense and counterclaim have been filed by Premier, two individuals nominated by Premier to the Greenstone Board, and the Greenstone Managing Partner.

Corporate

On January 8, 2018, we completed the acquisition of all of the issued and outstanding common shares of AuRico Metals Inc. for C$1.80 cash consideration per share, for an aggregate transaction value of approximately C$310 million. With this acquisition, we acquired 100% ownership in the Kemess Project and a portfolio of royalties, including a 1.5% NSR on the Young-Davidson Mine located in Canada owned by Alamos Gold Inc., and a 2.0% NSR on the Fosterville Mine located in Australia owned by Kirkland Lake Gold Ltd. (collectively, the “Royalty Portfolio”).

On February 1, 2018, we announced that we had entered into a $500 million four-year secured revolving credit facility (the “Corporate Facility”) with a lending syndicate led by The Bank of Nova Scotia and National Bank of Canada. The Corporate Facility is for general corporate purposes, including working capital, investments, acquisitions and capital expenditures. In connection with entering into the Corporate Facility, Centerra repaid and subsequently terminated its then existing credit facility with the European Bank for Reconstruction and Development.

On June 27, 2018, we announced the completion of the sale of our Royalty Portfolio to a subsidiary of Triple Flag Mining Finance Bermuda Ltd. (“Triple Flag”) for an up-front cash payment of $155 million, subject to customary adjustments, including an economic effective date of April 1, 2018. At the same time, the Company and Triple Flag entered into a $45 million silver stream on the Kemess Project. Under the silver stream agreement, the Company has agreed to sell 100% of the silver production from the Kemess Project in exchange for advance payments for silver payable in tranches of $10 million, $10 million, $12.5 million and $12.5 million. The payments would be due upon public announcement of a construction decision for the Kemess underground development project and the three succeeding anniversaries of such date. In addition, Triple Flag will make ongoing payments of 10% of the then current market price for each ounce of silver delivered.

2.4 Other Disclosure Relating to Ontario Securities Commission Requirements for Companies Operating in Emerging Markets

Controls Relating to Corporate Structure Risk

We have implemented a system of corporate governance, internal controls over financial reporting, and disclosure controls and procedures that apply at all levels of the Company and its subsidiaries. These systems are overseen by the Company’s board of directors (the “Board”), and implemented by the Company’s senior management. The relevant features of these systems include:
Control Over Subsidiaries

Centerra’s corporate structure has been designed to ensure that the Company controls or has a measure of direct oversight over the operations of its subsidiaries. All of our subsidiaries are directly or indirectly wholly-owned by the Company with the exception of (i) our 50% limited partnership interest in the Greenstone Partnership, (ii) shareholdings in other publicly traded and privately held companies which represent less than 10% of the consolidated assets of Centerra, and less than 10% of the consolidated sales and operating revenue of Centerra.

Centerra controls the appointments of all directors and officers of its wholly owned subsidiaries, except for KGC where we have an arrangement with Kyrgyzaltyn JSC (“Kyrgyzaltyn”) which provides that we will use commercially reasonable efforts to have at least one representative from Kyrgyzaltyn elected as Chair of the board of directors of KGC and a member of each of the KGC management committee and the KGC auditing committee.

The directors of Centerra’s wholly-owned subsidiaries are ultimately accountable to Centerra as the shareholder appointing him or her, and to Centerra’s Board and senior management. As well, the annual budget, capital investment and exploration program in respect of the Company’s mineral properties are established by the Company and approved by the Board. Members of management of all subsidiaries are also subject to written delegation of financial authority rules (adopted by the board of directors of each subsidiary) which limit their ability to bind such company. Our internal audit group also regularly travels to Centerra’s operating sites and subsidiaries and reports directly to the Audit Committee on compliance with various matters.

In the case of the Greenstone Partnership (which owns the Greenstone Gold Property in Northern Ontario, Canada), the partnership is governed by the Greenstone Partnership Agreement which sets out the rights and obligations of the partners. In accordance with the Greenstone Partnership Agreement, we currently have the right to nominate 50% of the directors on the board of the Managing Partner. The other 50% of the Greenstone Partnership board is appointed by our partner in the Greenstone Partnership, Premier Gold Mines Limited.

We have a 75% interest in the Endako Mine Joint Venture which was formed on June 12, 1997 pursuant to the terms of the Exploration, Development and Mine Operating Agreement between Thompson Creek Metals Company Inc. (“Thompson Creek”) and Sojitz Moly Resources, Inc. (“Sojitz”), as amended (the “Endako Mine Joint Venture Agreement”). Sojitz owns the remaining 25% interest in the Endako Mine Joint Venture. Our 75% interest in the contractual joint venture is held through our wholly owned subsidiary, Thompson Creek. We appoint all officers and directors of Thompson Creek. We are the manager of the Endako Mine Joint Venture with overall management responsibility for operations. As manager, we prepare annual budgets and production plans and submit them to Sojitz for approval. Oversight is provided by a joint venture committee whose members are appointed by Thompson Creek and Sojitz.

Signing officers for subsidiary foreign bank accounts (of our wholly owned subsidiaries) are either employees of Centerra or directors of the subsidiaries. In accordance with the Company’s internal policies, all subsidiaries must notify the Company’s corporate treasury department of any changes in their local bank accounts including requests for changes to authority over the subsidiaries’ foreign bank accounts. Monetary limits are established internally by the Company as well as with the respective banking institution. Annually, authorizations over bank accounts are reviewed and revised as necessary. Changes are communicated to the banking institution by the Company and the applicable subsidiary to ensure appropriate individuals are identified as having authority over the bank accounts.

Strategic Direction

Centerra’s Board is responsible for the overall stewardship of the Company and, as such, supervises the management of the business and affairs of the Company. More specifically, the Board is responsible for reviewing the strategic business plans and corporate objectives, and approving acquisitions, dispositions, investments, capital expenditures and other transactions and matters that are material to the Company including those of its material subsidiaries.

Internal Control Over Financial Reporting

The Company prepares its consolidated financial statements and management’s discussion and analysis (“MD&A”) on a quarterly and annual basis, using IFRS as issued by the International Accounting Standards Board, which require financial information and disclosures from its subsidiaries. The Company implements internal controls over the preparation of its financial statements and other financial disclosures to provide reasonable assurance that its financial reporting is reliable and that the quarterly and annual financial statements and MD&A are being prepared in accordance with IFRS and relevant securities laws. These internal controls include the following:

(i) The Company has established a monthly and quarterly reporting package relating to its subsidiaries that standardizes the information required from the subsidiaries in order to complete the consolidated financial
statements and MD&A. Management of the Company has direct access to relevant financial management of its subsidiaries in order to verify and clarify all information required.

(ii) All public documents and statements relating to the Company and its subsidiaries containing material information (including financial information) are reviewed by members of the in-house legal department and our internal disclosure committee comprised of the President & Chief Executive Officer (“CEO”), Chief Financial Officer (“CFO”), Chief Operating Officer, General Counsel, and Vice President, Investor Relations before such material information is disclosed, to make sure that all material information has been considered by management of the Company and properly disclosed. Where appropriate, the disclosure committee will also convene a subset of other employees to ensure that our public documents and statements do not contain any misrepresentations, as such term is defined in applicable Canadian securities laws.

(iii) As more fully described below, the Company’s Audit Committee obtains confirmation from the CEO and CFO as to the matters addressed in the quarterly and annual certifications required under National Instrument 52-109 – Certification of Disclosure in the Company’s Annual and Interim Filings (“NI 52-109”), including its review of internal controls over financial reporting and disclosure controls and procedures.

(iv) The Company’s Audit Committee reviews and approves the Company’s quarterly and annual financial statements and MD&A and recommends to the Board for approval of the Company’s quarterly and annual financial statements and MD&A, and any other financial information requiring Board approval, prior to their publication or release.

(v) The Company’s Audit Committee assesses and evaluates the adequacy of the procedures in place for the review of the Company’s public disclosure of financial information extracted or derived from the Company’s financial statements by way of reports from management and its internal and external auditor.

(vi) Although not specifically a management control, the Company engages its external auditor to perform reviews of the Company’s quarterly financial statements and an audit of the annual consolidated financial statements in accordance with Canadian generally accepted auditing standards.

**Disclosure Controls and Procedures.**

The responsibilities of the Company’s Audit Committee include oversight of the Company’s internal control systems and disclosure controls and procedures including those systems to identify, monitor and mitigate business risks as well as compliance with legal, ethical and regulatory requirements.

**CEOs and CFO Certifications.**

In order for the Company’s President & CEO and CFO to be in a position to attest to the matters addressed in the quarterly and annual certifications required by NI 52-109, the Company has developed internal procedures and responsibilities throughout the organization for its regular periodic and timely reporting. These processes are designed to provide assurances that information that may constitute material information will reach the appropriate individuals who draft and/or review public documents and statements relating to the Company. Annually, we engage an external accounting firm to carry out a review of our internal controls over financial reporting.

These systems of corporate governance, internal control over financial reporting and disclosure controls and procedures are designed to ensure that, among other things, the Company has access to all material information about its subsidiaries.

**Procedures of the Board of Directors of the Company**

**Oversight of the Company’s Risks**

We have adopted an enterprise risk management program which applies to all of our operations, projects and corporate offices. Our executive team meets regularly with our Vice President, Risk and Insurance to review the risks applicable to the organization and each site, including country specific risks, and to review mitigation actions. The Risk Committee of the Board has oversight responsibilities in relation to the policies, processes and systems for the identification, assessment and management of the Company’s principal strategic, financial, and operational risks. The members of the Risk Committee must include at least one member from each of the other standing committees of the Board, and the majority of members must be independent of the Company.
Fund Transfers from the Company's Subsidiaries to Centerra

Funds are transferred by the Company’s subsidiaries to the Company by way of wire transfer for a variety of purposes, including: chargeback of costs undertaken on behalf of the subsidiaries via intercompany invoices by the Company; repayment of loans related to project funding; and dividend declaration/payment by the subsidiaries. The method of transfer is dependent on the funding arrangement established between the Company and the subsidiary. In some cases, loan agreements are established with corresponding terms and conditions. In other cases, dividends are declared and paid based on the profitability and available liquidity of the applicable subsidiary.

Records Management of the Company's Subsidiaries

The original minute books, corporate seal and corporate records of each of the Company’s subsidiaries are kept at each subsidiary’s respective registered office. All material documents are available in the local language of the subsidiary and in English.

Approval of Related Party Transactions

The Board has established a Special Committee comprised entirely of independent directors, Bruce Walter (Chair), Richard Connor and Sheryl Pressler to, among other things, oversee, review, evaluate and consider transactions and matters pertaining to transactions involving related parties, including Kyrgyzaltyn, Centerra’s largest shareholder and a corporation owned by the Government of the Kyrgyz Republic. One of the Company’s material properties, the Kumtor Mine, is located in the Kyrgyz Republic.

2.5 Centerra’s Business

We are a Canadian-based gold mining company focused on operating, developing, exploring and acquiring gold properties in North America, Asia, and other markets worldwide. We are one of the largest Western-based gold producers in Central Asia.

We operate two material properties: the Kumtor Mine in the Kyrgyz Republic, and the Mount Milligan Mine in British Columbia, Canada. We have a third property, the Öksüt Mine, in Turkey which started construction in 2018 and had first gold pour in January 2020. Construction and commissioning at the Öksüt Mine are continuing and commercial production is expected to be declared in mid-2020. We also have pre-development projects in Ontario, Canada (Hardrock Project), and in British Columbia (Kemess Project).

We own a molybdenum business which includes our TC Mine in Idaho, United States, and the Endako Mine (we own a 75% interest) in British Columbia, Canada. Both the TC Mine and the Endako Mine are currently on care and maintenance. We also operate the Langeloth Metallurgical Processing Facility in Pennsylvania.

We have exploration interests in Canada, the United States and Turkey, which are owned (directly or indirectly) by Centerra, and properties in Mexico, Turkey, and the United States in which we are earning interests pursuant to option agreements with the respective property’s owners.

Business Objectives

Our vision statement is to build a team-based culture of excellence that responsibly delivers sustainable value and growth.

For more information
You can find more information about Centerra on SEDAR at www.sedar.com.

See our 2019 financial statements and MD&A for additional financial information.

See our most recent management information circular for additional information, including how our directors and officers are compensated and any loans to them, principal holders of our securities, and securities authorized for issuance under our equity compensation plans.
Business Operations

Our principal business operations of gold/copper production span the six major stages of the mining cycle, from early-stage exploration to mine closure and reclamation.

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Exploration</strong></td>
<td>Our exploration programs are focused on increasing our mineral reserves and resources. These programs include: drilling at or in the immediate vicinity of our operating mine(s) to replace mined reserves, drilling programs on advanced stage projects where gold mineralization has been identified, and grassroots exploration on projects where gold and/or copper mineralization has not been identified. Our exploration and business development teams actively pursue new exploration project opportunities worldwide.</td>
</tr>
<tr>
<td><strong>Development and Construction</strong></td>
<td>If our exploration programs are successful in identifying a mineral resource, the prospects for economic extraction of the resource will be analyzed through a series of technical studies. These may include metallurgical studies, scoping studies, environmental studies, mine and processing design, preliminary assessment studies, pre-feasibility studies and feasibility studies. Pre-feasibility and feasibility studies may be undertaken concurrently with permitting for the project. Once feasibility and permitting are concluded, project financing may be arranged followed by detailed engineering and construction of the mine site and processing facilities.</td>
</tr>
<tr>
<td><strong>Mining</strong></td>
<td>Ore and waste rock are removed from deposits by open pit or underground methods. The ore is then transported to a processing facility to extract gold and/or copper (depending on the mine). The waste rock is placed on an engineered waste rock dump for subsequent rehabilitation or used in the construction of the tailings management facility.</td>
</tr>
<tr>
<td><strong>Processing</strong></td>
<td>Mined ore is processed using different methods depending on its characteristics. This may include heap leaching, crushing, milling, flotation, roasting, and CIL or CIP methods for gold and copper extraction. After having extracted the gold and/or copper, the remaining processed waste materials are placed in a tailings facility for storage.</td>
</tr>
<tr>
<td><strong>Refining and Gold Sales</strong></td>
<td>At our Kumtor and Öksüt mines, recovered gold is smelted at our mill (processing facility) into doré bars which are then sold and delivered to a refinery for further refining to market delivery standards. At our Mount Milligan Mine, we produce a copper/gold concentrate which is then sold to third parties including smelters and traders for further refining.</td>
</tr>
<tr>
<td><strong>Closure and Reclamation</strong></td>
<td>As a responsible mining company, we plan how we are going to reclaim the areas we mine before we start construction. In some cases, we reclaim at the same time as we extract to expedite the process. In other cases, it is not possible to reclaim during the extraction process and therefore, efforts are deferred until after mining is completed. After mining has permanently ceased, we reclaim or continue to reclaim (as applicable) and monitor the land. We also regularly update our final closure plans to reflect any changes in operations. Our high standards for reclamation comply with both local and international standards.</td>
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</table>

Marketing and Distribution

Our principal products are gold, copper, and to a lesser extent, molybdenum and ferromolybdenum products. Our Kumtor Mine and Öksüt Mine produce gold doré bars. Our Mount Milligan Mine produces a copper-gold concentrate, and our Langeloth Metallurgical Processing Facility provides tolling roasting services for customers and also purchases molybdenum concentrates from third parties to convert to upgraded products which are then sold into the metallurgical and chemical markets.
Gold Industry

The two principal uses of gold are bullion investment and product fabrication. A broad range of end uses is included within the fabrication category, the most significant of which is the production of jewelry. Other fabrication uses include official coins, electronics, miscellaneous industrial and decorative uses, medals and medallions.

Copper Industry

Copper is an excellent conductor of electricity and heat and these properties result in the principal applications for copper consumption. Refined copper is used in the generation and transmission of electricity as well as industrial machinery and consumer products that have electrical and electronic applications.

Gold Doré Produced at Kumtor Mine

All gold doré produced at the Kumtor Mine is purchased at the mine site by Kyrgyzaltyn for processing at its refinery in the Kyrgyz Republic pursuant to the Restated Gold and Silver Sale Agreement dated June 6, 2009 entered into between Kumtor Gold Company (“KGC”), Kyrgyzaltyn and the Kyrgyz Government. Under these arrangements, Kyrgyzaltyn is required to pay for all gold delivered to it, based on the afternoon fixing of the price of gold on the London Bullion Market by the 12th calendar day following delivery of gold doré to it. As at December 31, 2019, $10,000 was outstanding under these arrangements. The obligations of Kyrgyzaltyn are partially secured by a pledge of 2,850,000 of Centerra shares owned by Kyrgyzaltyn. Subsequent to December 31, 2019, the balance receivable from Kyrgyzaltyn was paid in full. All gold doré produced by the mine to date has been purchased by Kyrgyzaltyn pursuant to these arrangements (or its predecessor arrangements) without incident. Kyrgyzaltyn owns approximately 26.4% of our issued and outstanding Common Shares and is the Company’s largest shareholder.

Gold Doré Produced at Öksüt Mine

As at December 31, 2019, construction at the Öksüt Mine was 89% complete to allow operational start-up of all required facilities. On January 31, 2020, the Öksüt Mine achieved its first gold pour. All gold doré produced at the Öksüt Mine will be processed at refining facilities within Turkey. Under Turkish legislation, the Central Bank of the Republic of Turkey has a first right to purchase gold produced by mining operations in Turkey. The sales price is fixed based on the gold spot price. If the gold doré is not purchased by the Central Bank of the Republic of Turkey, it is sold on the Borsa Istanbul (stock exchange) at spot prices.

Copper/Gold Concentrate Produced at Mount Milligan Mine

Concentrate Sales

Copper-gold concentrate produced by the Mount Milligan Mine in Canada is sold to various smelters and off-take purchasers. We are currently party to four multi-year concentrate sales agreements for the sale of copper-gold concentrate produced at Mount Milligan Mine. Pursuant to these agreements, we have agreed to sell an aggregate of approximately 130,000 tonnes in 2020, 100,000 tonnes in 2021, and 40,000 tonnes in each of 2022 and 2023.

Pricing under these concentrate sales agreements is determined by reference to specified published reference prices during the applicable quotation periods. Payment for the concentrate is based on the price for the agreed copper and gold content of the parcels delivered, less smelting and refining charges and certain other deductions, if applicable. The copper smelting and refining charges are negotiated in good faith and agreed by the parties for each contract year based on terms generally acknowledged as industry benchmark terms. The gold refining charges are as specified in the agreements.

We intend to either extend our current multi-year agreements as the terms expire, or we may enter into additional multi-year sales agreements. To the extent that production is expected to exceed the volume committed under these agreements, we will sell the additional volume under short-term contracts or on a spot basis.

Mount Milligan Streaming Arrangement

We are also subject to a streaming arrangement with RGLD Gold AG and Royal Gold Inc. (collectively, “Royal Gold”) pursuant to which Royal Gold is entitled to receive 35% of the gold produced and 18.75% of the copper production at our Mount Milligan Mine in exchange for $435 per ounce of gold delivered and 15% of the spot price per metric tonne of copper delivered (the “Mount Milligan Stream Arrangement”). The Mount Milligan Stream Arrangement was first put in place in 2010 and was subsequently amended, including in connection with Centerra’s acquisition of Thompson Creek in October 2016. The original streaming arrangement required Royal Gold to make upfront payments totaling $781.5 million from 2010 to 2013 to Thompson Creek for the rights to receive future gold production. The arrangement was renegotiated by Centerra in conjunction with its acquisition of Thompson Creek. To satisfy our obligations under the Mount Milligan Stream Arrangement, in connection with copper and gold concentrate sale from the Mount Milligan
Mine, we purchase gold and copper in the market for delivery to Royal Gold based on a portion of the gold ounces and pounds of copper sold.

**Molybdenum Industry**

Our principal molybdenum products are molybdic oxide (also known as roasted molybdenum concentrate) and ferromolybdenum. Other products we produce include high soluble technical oxide, pure molybdenum trioxide and high purity molybdenum disulfide.

Molybdenum is an industrial metal principally used for metallurgical applications as a ferro-alloy in steels where high strength, temperature-resistant or corrosion-resistant properties are sought. The addition of molybdenum enhances the strength, toughness and wear and corrosion-resistance in steels when added as an alloy. Molybdenum is used in major industries including chemical and petro-chemical processing, oil and gas for drilling and pipelines, power generation, automotive and aerospace. Molybdenum is also widely used in non-metallurgical applications such as petroleum refining catalysts, lubricants, flame-retardants in plastics, water treatment and as a pigment.

### 2019 and 2018 Production and Revenue

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
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<tbody>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold sold (oz)</td>
<td>780,654</td>
<td>709,330</td>
</tr>
<tr>
<td>Payable copper sold ('000 lbs.)</td>
<td>67,430</td>
<td>44,370</td>
</tr>
<tr>
<td>Revenue ($ millions)</td>
<td>1,375.3</td>
<td>1,129.3</td>
</tr>
<tr>
<td><strong>Kumtor Mine – Gold</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold sold (oz)</td>
<td>600,231</td>
<td>530,448</td>
</tr>
<tr>
<td>Gold Sales ($ millions)</td>
<td>827.5</td>
<td>660.1</td>
</tr>
<tr>
<td><strong>Mount Milligan Mine</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payable Gold Sold (oz)</td>
<td>180,423</td>
<td>178,882</td>
</tr>
<tr>
<td>Payable Copper Sold ('000 lbs.)</td>
<td>67,430</td>
<td>44,370</td>
</tr>
<tr>
<td>Gold Sales ($ millions)</td>
<td>194.2</td>
<td>173.5</td>
</tr>
<tr>
<td>Copper Sales ($ millions)</td>
<td>140.8</td>
<td>89.5</td>
</tr>
<tr>
<td><strong>Langeloth – Molybdenum</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molybdenum sold ('000 lbs.)</td>
<td>16,035</td>
<td>15,726</td>
</tr>
<tr>
<td>Toll roasted and upgraded molybdenum ('000 lbs.)</td>
<td>5,059</td>
<td>5,586</td>
</tr>
<tr>
<td>Sales from Molybdenum ($ millions)</td>
<td>204.7</td>
<td>197.1</td>
</tr>
<tr>
<td>Sales from Tolling and upgraded molybdenum ($ millions)</td>
<td>8.1</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Our revenue from the sale of our products are dependent on the world market price of gold, copper and molybdenum. World market prices for our products have fluctuated historically and are affected by numerous factors beyond our control. See the sections of this AIF entitled “Historic Metal Prices” and “Risks Factors” for additional information.

### 2020 Outlook

Production, cost and capital forecasts for 2020 are forward-looking information and are based on key assumptions and subject to material risk factors that could cause actual results to differ materially. These risks are discussed herein under the headings “Risk Factors”, “Material Assumptions Used to Forecast Production and Costs for 2020” and “Forward-Looking Information” in this document.

The Company has been monitoring closely developments relating to COVID-19 and has taken a number of proactive measures to ensure the safety of its employees and the continuity of its business. To date, the Company has experienced no operating or production disruptions nor any supply chain interruptions or impact.
However, the Company has decided to undertake a significant reduction of manpower and operations at the Öksüt Mine on March 31, 2020 for an initial period of two weeks. This decision was taken in response to recent Turkish government initiatives aimed to reducing the spread of COVID-19. The reduction will result in a suspension of open pit mining activities though limited crews will remain on site to place ore on the heap leach pad, to operate the ADR plant and to perform essential site services. Approximately 150,000 tonnes of crushed material is available at site for stacking (such volume represents approximately 15 days’ worth of stacking activity). Öksüt has prepared detailed plans in case a further reduction or cessation of operations becomes necessary or desirable. This short-term cessation of mining is not expected to impact 2020 production guidance as estimated at December 31, 2019.

Kumtor Mine and Mount Milligan Mine operations continue for the time being and, in the case of Kumtor Mine, with the support of the Kyrgyz Government. Each site has implemented a number of proactive measures to prevent the spread of COVID-19 and ensure the safety of its employees, contractors, communities and other stakeholders. Both Kumtor Mine and Mount Milligan Mine have also made detailed plans in case a reduction or cessation in operations becomes necessary or desirable.

Despite its best efforts, we note that COVID-19 has the potential to significantly further disrupt Centerra’s operations. Among other things, COVID-19 has the potential to cause significant illness in our workforce, temporarily shut down mining, milling (processing) and other operations, disrupt supply chains as well as rail and shipping networks used to deliver our products to customers. While we have taken and will continue to take measures to mitigate such risks, the global effects of COVID-19 are rapidly evolving and cannot be predicted.

The guidance in this Outlook section has been largely reproduced from the Company’s news release of February 11, 2020 for ease of reference. However, the Company cautions that due to the rapidly evolving risks relating to COVID-19, the guidance set out below will not reflect the Company’s estimates of its 2020 performance if there are any further significant disruptions to any of its operations. Readers are therefore cautioned to carefully consider the foregoing paragraphs of this Outlook section and the risks identified elsewhere in this document.

2020 Gold Production

Centerra’s 2020 gold production is expected to be between 740,000 to 820,000 ounces.

Kumtor Mine’s gold production forecast is expected to be in the range of 520,000 ounces to 560,000 ounces. A comprehensive mill shutdown for the planned replacement of the SAG Mill girth gear, SAG Mill pinion and Ball Mill electrical motor occurred in December 2019 and the mill was successfully restarted in early-January. This shutdown is expected to reduce production levels in the first quarter of 2020. For 2020, 100% of the ore feed for the processing plant will come from existing ore stockpiles on surface.

At Mount Milligan, the Company expects to achieve an average daily throughput of approximately 55,000 tonnes per calendar day for the full year. Crusher maintenance was completed during January. Further mill maintenance downtime is scheduled for the first quarter (9-days) and third quarter (8-days) to complete SAG Mill relines and other maintenance work. Mount Milligan’s total (streamed and unstreamed) payable gold production is forecast to be in the range of 140,000 to 160,000 ounces. The Company notes that any delays in the completion of such work, due to COVID-19 or otherwise, may result in a potentially prolonged period during which the mill could be shut down. Mount Milligan’s total payable gold production is forecast to be in the range of 140,000 to 160,000 ounces. During the first half of 2020, lower than the expected 2020 average gold and copper grades are planned to be processed resulting in lower first half production. Gold and copper grades and metal production is expected to increase over the second half of 2020. The Company continues to work on several continuous improvement projects including electrification of all pumping equipment, groundwater exploration and remediation of the secondary crushing circuit and is actively reducing costs throughout the operation, including the removal of a layer of management in January 2020.

At the Öksüt Mine, first gold pour occurred on January 31, 2020 and 2020 full year gold production is expected to be in the range of 80,000 to 100,000 ounces with gold production expected to ramp up over the course of the year.
2020 Copper Production

Centerra expects total (streamed and unstreamed) payable copper production from the Mount Milligan Mine to be in the range of 80 to 90 million pounds.

Centerra’s 2020 production is forecast as follows:

<table>
<thead>
<tr>
<th>2020 Production Guidance</th>
<th>Units</th>
<th>Kumtor</th>
<th>Mount Milligan(1)</th>
<th>Öksüt</th>
<th>Centerra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unstreamed Gold Payable Production</td>
<td>(Koz)</td>
<td>520-560</td>
<td>91-104</td>
<td>80-100</td>
<td>691-764</td>
</tr>
<tr>
<td>Streamed Gold Payable Production(1)</td>
<td>(Koz)</td>
<td>-</td>
<td>49-56</td>
<td>-</td>
<td>49-56</td>
</tr>
<tr>
<td>Total Gold Payable Production(2)</td>
<td>(Koz)</td>
<td>520-560</td>
<td>140-160</td>
<td>80-100</td>
<td>740-820</td>
</tr>
<tr>
<td>Copper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unstreamed Copper Payable Production</td>
<td>(Mlb)</td>
<td>-</td>
<td>65-73</td>
<td>-</td>
<td>63-73</td>
</tr>
<tr>
<td>Streamed Copper Payable Production(1)</td>
<td>(Mlb)</td>
<td>-</td>
<td>15-17</td>
<td>-</td>
<td>15-17</td>
</tr>
<tr>
<td>Total Copper Payable Production(3)</td>
<td>(Mlb)</td>
<td>80-90</td>
<td>80-90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) The Mount Milligan Streaming Arrangement entitles Royal Gold to 35% and 18.75% of gold and copper sales, respectively, from the Mount Milligan Mine. Under the Mount Milligan Streaming Arrangement, Royal Gold will pay $435 per ounce of gold and 15% of the spot price per metric tonne of copper delivered.
(2) Gold production assumes recoveries of 82.4% at Kumtor Mine, 64% at Mount Milligan Mine and approximately 60% at Öksüt Mine.
(3) Copper production assumes 81.9% recovery for copper at Mount Milligan Mine.

2020 Sales and All-In Sustaining Unit Costs Guidance

Centerra’s 2020 sales and all-in sustaining costs per ounce sold4 ("AISC") are calculated on a by-product basis and are forecast as follows:

<table>
<thead>
<tr>
<th>2020 All-In Sustaining Unit Costs(4)</th>
<th>Kumtor</th>
<th>Mount Milligan(2)</th>
<th>Öksüt</th>
<th>Centerra(2)(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ounces sold forecast (Kounce)</td>
<td>520-560</td>
<td>140-160</td>
<td>80 - 100</td>
<td>740-820</td>
</tr>
<tr>
<td>Production Costs per ounce of gold sold ($/oz)</td>
<td>$300-360</td>
<td>$750-800</td>
<td>$375-550</td>
<td>$450-500</td>
</tr>
<tr>
<td>All-in sustaining costs on a by-product basis ($/ounce)(1)(2)</td>
<td>$750-$800</td>
<td>$885-$935</td>
<td>$650-$700</td>
<td>$820-$870</td>
</tr>
<tr>
<td>Revenue-based tax(3) and taxes(3) ($/ounce)</td>
<td>$190-$205</td>
<td>$20-24</td>
<td>$10-12</td>
<td>$130-140</td>
</tr>
<tr>
<td>All-in sustaining costs on a by-product basis, including taxes ($/ounce)(1)(2)</td>
<td>$940-$1,005</td>
<td>$905-959</td>
<td>660-712</td>
<td>950-1,010</td>
</tr>
<tr>
<td>Gold - All-in sustaining costs on a co-product basis ($/ounce) (1)(2)</td>
<td>$750-$800</td>
<td>$970-$1,220</td>
<td>$650-$700</td>
<td>$825-$925</td>
</tr>
<tr>
<td>Production costs per pound of copper sold ($/lb.)</td>
<td>-</td>
<td>$1.30-$1.40</td>
<td>-</td>
<td>$1.30-$1.40</td>
</tr>
<tr>
<td>Copper - All-in sustaining costs on a co-product basis ($/lb)(1)(2)</td>
<td>-</td>
<td>$1.70-$2.10</td>
<td>-</td>
<td>$1.70-$2.10</td>
</tr>
</tbody>
</table>

(1) All-in sustaining costs per ounce sold, all-in sustaining costs per ounce sold on a by-product basis, all-in sustaining costs on a by-product basis including taxes per ounce sold and all-in sustaining costs on a co-product basis (gold and copper) on a per unit basis are non-GAAP measures and are discussed under “Non-GAAP Measures” in this document.
(2) Mount Milligan payable production and ounces sold are on a 100% basis (the Mount Milligan Streaming Arrangement entitles Royal Gold to 35% and 18.75% of gold and copper sales, respectively). Unit costs and consolidated unit costs include a credit for forecasted copper sales treated as by-product for all-in sustaining costs and all-in sustaining costs plus taxes. Payable production for copper and gold reflects estimated metallurgical losses resulting from handling of the concentrate and payable metal deductions, subject to metal content, levied by smelters.
(3) Includes revenue-based tax at Kumtor Mine, British Columbia mineral tax at Mount Milligan Mine and income tax at Öksüt Mine.
(4) Results in chart may not add due to rounding.

Production costs per ounce of gold ($/oz) is included as a new guidance measure and is considered the nearest GAAP measure to AISC. AISC is defined in the non-GAAP section of this document and includes production costs, as presented in the financial statements, as well as sustaining capital, capitalized stripping, corporate administration costs and various “other costs”, and a credit for copper sales ranging from $175 to $197 million for 2020. At Mount Milligan Mine, “other costs” include approximately $20 million for treatment and refining charges and $10 million for marketing costs. In 2020, at Kumtor Mine, “other costs” include approximately $10 million as contributions to various development funds in the Kyrgyz Republic.
**2020 Capital Spending**

Projected capital expenditures include:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kumtor Mine</td>
<td>215</td>
<td>49</td>
<td>18</td>
<td>282</td>
</tr>
<tr>
<td>Mount Milligan Mine</td>
<td>-</td>
<td>55</td>
<td>-</td>
<td>55</td>
</tr>
<tr>
<td>Öksüt Mine[1]</td>
<td>21</td>
<td>-</td>
<td>29</td>
<td>50</td>
</tr>
<tr>
<td>Kemess Underground Project</td>
<td>-</td>
<td>-</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Other[2]</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Consolidated Total</td>
<td>236</td>
<td>109</td>
<td>60</td>
<td>405</td>
</tr>
</tbody>
</table>

(1) Capitalized stripping includes cash component of $173 million (Kumtor Mine), and $20 million (Öksüt Mine).
(2) TC Mine, Endako Mine (75% ownership), Langeloth facility and Corporate)
(3) Sustaining capital and growth capital are non-GAAP measures and are discussed under “Non-GAAP Measures”.

**Kumtor Mine**

Spending on sustaining capital of $49 million relates primarily to major overhauls, purchase of vehicles and dewatering projects.

Growth capital investment at Kumtor Mine for 2020 is forecast at $18 million which includes capital expenditures for the tailings dam lift required to allow for production from cutback 20 and cost related to the construction of the effluent treatment plant.

Mining activities at Kumtor Mine in 2020 will be focused on stripping cutback 20. The cash component of capitalized stripping costs related to the development is expected to be $173 million of the $215 million total capitalized stripping estimated in 2020.

**Mount Milligan Mine**

Sustaining capital expenditures are forecast to be $55 million and relate primarily to tailings storage facility costs, major overhauls and water management costs.

**Öksüt Mine**

Growth capital investment for 2020 is forecast at $29 million which includes capital expenditures to complete the construction of the site.

The cash component of capitalized stripping costs related to the development of the open pit is expected to be $20 million of the $21 million total capitalized stripping estimated in 2020.

**Kemess Underground Project**

In 2020, total spending at Kemess is estimated at $35 million, including $22 million for care and maintenance for the year. The Company has authorized $13 million of capitalized pre-construction spending at the Kemess Underground Project, with further spending subject to Board approval.

**Greenstone Gold Property**

The 2020 expenditures relating to the Greenstone Gold Property (50-50 joint venture with Premier) including the Hardrock Project continue to be under review given the ongoing legal dispute between the Company and Premier.

**2020 Exploration Expenditures**

Planned exploration expenditures for 2020 are expected to be $50 million, including approximately $32 million for brownfields exploration (Kumtor Mine - $20 million, Mount Milligan Mine - $7 million, Öksüt Mine - $3 million and Kemess Project - $2 million) and the balance for greenfield and generative exploration programs.
2020 Corporate Administration

Corporate and administration expense for 2020 is forecast to be between $32 million and $38 million (including $6 million to $8 million of stock-based compensation expense).

2020 Depreciation, Depletion and Amortization

Consolidated depreciation, depletion and amortization (“DD&A”) expense included in costs of sales expense for 2020 is forecasted to be in the range of $295 to $345 million, including Kumtor Mine’s DD&A expense of $235 to $255 million, Mount Milligan Mine’s DD&A expense of $40 million to $60 million, and Öksüt Mine’s DD&A expense of $20 to $30 million.

2020 Taxes

Pursuant to the Restated Investment Agreement with the Kyrgyz Republic dated as of June 6, 2009 (the “Restated Investment Agreement”), Kumtor Mine’s operations are not subject to corporate income taxes. Instead, the Restated Investment Agreement imposes a tax of 13% on gross revenue plus 1% for the Issyk-Kul Oblast Development Fund. The Mount Milligan Mine operations are subject to corporate income tax and British Columbia mineral tax. At Öksüt Mine, income tax is expected to be between $1 to $2 million. Corporate income tax for 2020 is forecast to be nil, while British Columbia mineral tax is forecast to be between $2 and $4 million.

2020 Financing Costs

Financing costs for 2020 are expected to be $5 to $7 million. At December 31, 2019, the Company’s cash balance was approximately $43 million (excluding $28 million of restricted cash) and the outstanding debt balance was $78 million (Öksüt facility). At the end of 2019, the CAT lease facility of $27 million was repaid and the Öksüt facility with a drawn balance of $78 million was repaid on January 30, 2020 using lower cost funds from the Company’s corporate credit facility. In 2020, the Company expects to utilize the corporate credit facility and expedite its repayment using available cash flow.

Molybdenum Business Unit

In 2020, the Company expects that the Langeloth metallurgical roasting facility, forming part of the molybdenum business, will not generate sufficient operating margins to cover the costs of its two molybdenum mines on care and maintenance. This assumption is based on a decline in the molybdenum price late in 2019. Care and maintenance expenses related to the Molybdenum unit are currently estimated to be between $12 and $14 million for 2020.

Sensitivities

Centerra’s revenues, earnings and cash flows for 2020 are sensitive to changes in certain key inputs or currencies. The Company has estimated the impact of any such changes on revenues, net earnings and cash from operations.

<table>
<thead>
<tr>
<th>Change</th>
<th>Production Costs &amp; Taxes</th>
<th>Capital Costs</th>
<th>Financing Costs</th>
<th>Revenues</th>
<th>Cash flows</th>
<th>Net Earnings (after tax)</th>
<th>AISC(2)(3) on by-product basis</th>
<th>Impact on ($ per ounce sold)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold price $50/oz</td>
<td>5.1 - 5.6</td>
<td>-</td>
<td>1.5 - 1.6</td>
<td>34.5 - 38.2</td>
<td>27.9 - 31.0</td>
<td>27.9 - 31.0</td>
<td>0.2 - 0.5</td>
<td></td>
</tr>
<tr>
<td>Copper price 10%</td>
<td>4.7 - 5.3</td>
<td>-</td>
<td>0.6 - 0.7</td>
<td>17.0 - 19.0</td>
<td>11.7 - 13.0</td>
<td>11.7 - 13.0</td>
<td>21 - 23</td>
<td></td>
</tr>
<tr>
<td>Diesel fuel 10%</td>
<td>4.9 - 6.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.9 - 6.0</td>
<td>4.9 - 6.0</td>
<td>7 - 8</td>
<td></td>
</tr>
<tr>
<td>Kyrgyz som (2) 1 lira</td>
<td>1.2 - 1.6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>12.1 - 1.6</td>
<td>12.1 - 1.6</td>
<td>15 - 2.0</td>
<td></td>
</tr>
<tr>
<td>Turkish Lira (2)</td>
<td>4.5 - 5.0</td>
<td>1.5 - 2.5</td>
<td>-</td>
<td>-</td>
<td>5.5 - 7.5</td>
<td>4.0 - 5.0</td>
<td>8 - 9</td>
<td></td>
</tr>
<tr>
<td>Canadian dollar (3)(4)</td>
<td>8.5 - 10.0</td>
<td>4.1 - 4.8</td>
<td>-</td>
<td>-</td>
<td>12.6 - 14.8</td>
<td>8.5 - 10.0</td>
<td>13 - 15</td>
<td></td>
</tr>
</tbody>
</table>

(1) Appreciation of currency against the U.S. dollar will result in higher costs and lower cash flow and earnings, depreciation of currency against the U.S. dollar results in decreased costs and increased cash flow and earnings.
(2) Non-GAAP measure. See discussion under “Non-GAAP Measures”.
(3) AISC is calculated over the full year ounces sold forecast.
(4) Includes the effect of hedging programs.
Material Assumptions Used to Forecast Production and Costs for 2020

Production, cost and capital forecasts for 2020 are forward-looking information and are based on key assumptions and subject to material risk factors that could cause actual results to differ materially and which are discussed herein under the headings “Risks Factors” in this document.

Material assumptions or factors used to forecast production and costs for 2020 include the following:

- a gold price of $1,350 per ounce
- a copper price of $2.60 per pound
- a molybdenum price of $10.75 per pound
- exchange rates:
  - $1USD: $1.30 Canadian dollar,
  - $1USD: 69.50 Kyrgyz som,
  - $1USD: 5.50 Turkish lira,
  - $1USD: 0.85 Euro,
- diesel fuel price assumption:
  - $0.50/litre at Kumtor,
  - $0.81/litre (CAD$1.06/litre) at Mount Milligan.

The assumed diesel price of $0.50/litre at Kumtor Mine assumes that no Russian export duty will be paid on the fuel exports from Russia to the Kyrgyz Republic. Diesel fuel for Kumtor Mine is sourced from separate Russian suppliers. The diesel fuel price assumptions were made when the oil price was approximately $66 per barrel. Crude oil is a component of diesel fuel purchased by the Company, such that changes in the price of Brent crude oil generally impacts diesel fuel prices. The Company established a hedging strategy to manage changes in diesel fuel prices on the cost of operations at the Kumtor Mine with the objective to hedge approximately up to 75% of Kumtor Mine’s 2020 diesel purchases. The oil price has significantly decreased from January 1, 2020. The Company is currently re-evaluating its diesel procurement strategy together with its hedging strategy, this may include holding higher levels of diesel at the Kumtor Mine and the hedging strategy extending beyond the current 12-month period.

Other material assumptions used in forecasting production and costs for 2020 can be found under the heading “Forward-Looking Information” in this document. Production, cost and capital forecasts for 2020 are forward-looking information and are based on key assumptions and subject to material risk factors that could cause actual results to differ materially and which are discussed under the heading “Risks Factors”.

Competitive Conditions

The mining industry is intensely competitive, particularly in the acquisition of mineral reserves and resources. In comparison with diversified mining companies, our competitive position is subject to unique competitive advantages and disadvantages related to the price of gold and copper.

Mineral Reserves and Resources

Our mineral reserves and resources are fundamental to the Company and serve as the foundation for our future production and project development.

We have interests in a number of properties. The tables in this section show our estimates of the proven and probable reserves, measured and indicated resources and inferred resources at those properties.

We estimate and disclose mineral reserves and resources in five categories, using the definitions adopted by the Canadian Institute of Mining, Metallurgy and Petroleum, and in accordance with NI 43-101. You can find out more about these categories at www.cim.org. See the “Glossary of Geological and Mining Terms” for complete definitions of mineral reserves and mineral resources.

For a further discussion of the key assumptions, methodologies and parameters used in the estimation of mineral reserves and mineral resources, see the section of this AIF entitled “Centerra’s Properties”.

About Mineral Resources

Mineral resources are not mineral reserves and do not have demonstrated economic viability, but do have reasonable prospect for economic extraction. They fall into three categories: measured, indicated, and inferred. Our reported mineral resources do not include mineral reserves. Measured and indicated mineral resources are sufficiently well-defined to allow geological and grade continuity to be reasonably assumed, and permit the application of technical and economic parameters in assessing the economic viability of the mineral resource. Inferred mineral resources are
estimated on limited information not sufficient to verify geological and grade continuity or to allow technical and economic parameters to be applied. Inferred mineral resources are too speculative geologically to have economic considerations applied to them. There is no certainty that mineral resources of any category will be upgraded to mineral reserves.

**Important Information About Mineral Reserve and Resource Estimates**

Although we have carefully prepared and verified the mineral reserve and resource figures in this AIF, the figures are estimates based in part on forward-looking information.

Estimates are based on our knowledge, mining experience, analysis of drilling results, the quality of available data and management’s best judgment. They are, however, imprecise by nature, may change over time, and include many variables and assumptions including geological interpretation, commodity prices and currency exchange rates, recovery rates, and operating and capital costs.

There is no assurance that the indicated levels of metal will be produced, and we may have to re-estimate our mineral reserves based on actual production experience. Changes in the metal price, production costs or recovery rates could make it unprofitable for us to operate or develop a particular site or sites for a period of time. See the sections of this AIF entitled “Forward-looking Information” and “Risk Factors”.
Table 1
Centerra Gold - Inc. 2019 Year-End Mineral Reserve and
Mineral Resource Summary - Gold (1)(6)
(as of December 31, 2019) (see additional footnotes page 28)

<table>
<thead>
<tr>
<th>Property</th>
<th>Proven and Probable Mineral Reserves</th>
<th>Measured and Indicated Mineral Resources (2)</th>
<th>Inferred Mineral Resources (2)(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tonnes (kt)</td>
<td>Grade (g/t)</td>
<td>Contained Gold (koz)</td>
</tr>
<tr>
<td>Mount Milligan(4)</td>
<td>114,735</td>
<td>0.41</td>
<td>1,525</td>
</tr>
<tr>
<td>Kumtor - Open Pit</td>
<td>16,311</td>
<td>1.83</td>
<td>958</td>
</tr>
<tr>
<td>Öksüt</td>
<td>1,041</td>
<td>0.68</td>
<td>23</td>
</tr>
<tr>
<td>Hardrock - Open Pit(3)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kemess Underground</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>132,105</td>
<td>0.59</td>
<td>2,506</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Measured</th>
<th>Indicated</th>
<th>Total Measured and Indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mount Milligan(4)</td>
<td>50,582</td>
<td>21,308</td>
<td>64,899</td>
</tr>
<tr>
<td>Kumtor - Open Pit</td>
<td>43,191</td>
<td>926</td>
<td>42,715</td>
</tr>
<tr>
<td>Öksüt</td>
<td>5,722</td>
<td>1,319</td>
<td>7,041</td>
</tr>
<tr>
<td>Hardrock - Underground(3)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Brookbank - Open Pit(5)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Key Lake - Open Pit(5)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Key Lake - Underground(5)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kailey(5)</td>
<td>4,315</td>
<td>173,719</td>
<td>178,034</td>
</tr>
<tr>
<td>Kemess Underground</td>
<td>-</td>
<td>6,846</td>
<td>6,846</td>
</tr>
<tr>
<td>Kemess East</td>
<td>-</td>
<td>1,319</td>
<td>1,319</td>
</tr>
<tr>
<td>Total</td>
<td>75,709</td>
<td>3,594</td>
<td>496,178</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Tonnes (kt)</th>
<th>Grade (g/t)</th>
<th>Contained Gold (koz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mount Milligan(4)</td>
<td>3,736</td>
<td>0.46</td>
<td>55</td>
</tr>
<tr>
<td>Kumtor - Open Pit</td>
<td>20,987</td>
<td>2.01</td>
<td>1,356</td>
</tr>
<tr>
<td>Kemess Underground</td>
<td>12,883</td>
<td>7.54</td>
<td>3,125</td>
</tr>
<tr>
<td>Öksüt</td>
<td>615</td>
<td>0.77</td>
<td>15</td>
</tr>
<tr>
<td>Hardrock - Open Pit(3)</td>
<td>85</td>
<td>0.88</td>
<td>2</td>
</tr>
<tr>
<td>Hardrock - Underground(5)</td>
<td>10,754</td>
<td>3.57</td>
<td>1,235</td>
</tr>
<tr>
<td>Brookbank - Open Pit(5)</td>
<td>86</td>
<td>2.36</td>
<td>7</td>
</tr>
<tr>
<td>Key Lake - Open Pit(5)</td>
<td>202</td>
<td>4.09</td>
<td>27</td>
</tr>
<tr>
<td>Key Lake - Underground(5)</td>
<td>673</td>
<td>1.30</td>
<td>28</td>
</tr>
<tr>
<td>Kailey(5)</td>
<td>29</td>
<td>3.65</td>
<td>3</td>
</tr>
<tr>
<td>Kemess Underground</td>
<td>47,700</td>
<td>0.34</td>
<td>529</td>
</tr>
<tr>
<td>Kemess East</td>
<td>29,300</td>
<td>0.30</td>
<td>283</td>
</tr>
<tr>
<td>Total</td>
<td>128,893</td>
<td>1.62</td>
<td>6,722</td>
</tr>
</tbody>
</table>

(1) Centerra's equity interest as of this news release are as follows: Mount Milligan 100%, Kumtor 100%, Öksüt 100%, Kemess Underground and Kemess East 100% and Greestone Gold properties (Hardrock, Brookbank, Key Lake, Kailey) 50%.
(2) Mineral resources are in addition to mineral reserves. Mineral resources do not have demonstrated economic viability.
(3) Inferred mineral resources have a great amount of uncertainty as to their existence and as to whether they can be mined economically. It cannot be assumed that all or part of the inferred mineral resources will ever be upgraded to a higher category.
(4) Production at Mount Milligan Mine is subject to a streaming agreement with RGLD Gold AG and Royal Gold, Inc. (collectively, “Royal Gold”) which entitles Royal Gold to 35% of gold sales from the Mount Milligan Mine. Under the stream arrangement, Royal Gold will pay $435 per ounce of gold delivered. Mineral reserves for the Mount Milligan Mine property are presented on a 100% basis.
(5) The Company notes that Premier Gold Mines Limited, our 50% joint venture partner in the Greestone Partnership, has issued a news release in October 2019 announcing a mineral resource estimate for the Hardrock property which was completed by G-Mining Services Inc. Centerra’s technical staff has reviewed the mineral resource estimate prepared by G-Mining on behalf of the Greestone Managing Partner and raised significant concerns regarding its use of certain technical parameters, as well as the related cost assumptions. Those parameters and assumptions have since become the subject of a legal proceeding involving AuRico Holdings and Premier. Accordingly, an independent third-party expert was retained by Centerra to review the parameters of the resource estimate and a more comprehensive review of the cost assumptions has been undertaken. That work is ongoing. Until such work is complete, Centerra is not in a position to endorse or accept the work product published by Premier and will instead rely on the 2016 Hardrock Technical Report.
(6) Numbers may not add up due to rounding.
### Table 2

**Centerra Gold Inc. - 2019 Year-End Mineral Reserve and Mineral Resource Summary - Other Metals (1) (5)**

(as of December 31, 2019) (see additional footnotes page 28)

<table>
<thead>
<tr>
<th>Property</th>
<th>Tonnes (kt)</th>
<th>Copper Grade (%)</th>
<th>Contained Copper (Mlbs)</th>
<th>Molybdenum Grade (%)</th>
<th>Contained Molybdenum (Mlbs)</th>
<th>Silver Grade (g/t)</th>
<th>Contained Silver (koz)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proven Mineral Reserves</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Milligan (4)</td>
<td>114,753</td>
<td>0.23</td>
<td>571</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kemess East (4)</td>
<td>76,275</td>
<td>0.23</td>
<td>389</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kemess Underground</td>
<td>107,381</td>
<td>0.27</td>
<td>630</td>
<td>-</td>
<td>-</td>
<td>1.99</td>
<td>6,878</td>
</tr>
<tr>
<td><strong>Total Copper and Silver</strong></td>
<td><strong>298,409</strong></td>
<td><strong>0.24</strong></td>
<td><strong>1,589</strong></td>
<td>-</td>
<td>-</td>
<td><strong>1.99</strong></td>
<td><strong>6,878</strong></td>
</tr>
<tr>
<td><strong>Probable Mineral Reserves</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Milligan (4)</td>
<td>191,028</td>
<td>0.23</td>
<td>959</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kemess Underground</td>
<td>107,381</td>
<td>0.27</td>
<td>630</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Proven and Probable Mineral Reserves</strong></td>
<td><strong>399,430</strong></td>
<td><strong>0.24</strong></td>
<td><strong>2,219</strong></td>
<td>-</td>
<td>-</td>
<td><strong>1.99</strong></td>
<td><strong>6,878</strong></td>
</tr>
<tr>
<td><strong>Measured Mineral Resources (2)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Milligan (4)</td>
<td>50,582</td>
<td>0.16</td>
<td>182</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Berg</td>
<td>176,384</td>
<td>0.36</td>
<td>1,391</td>
<td>0.03</td>
<td>132</td>
<td>3.02</td>
<td>17,152</td>
</tr>
<tr>
<td>Kemess Underground</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kemess East (4)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Thompson Creek (4)</td>
<td>57,645</td>
<td>-</td>
<td>0.07</td>
<td>92</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Endako</td>
<td>47,100</td>
<td>-</td>
<td>0.05</td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Indicated Mineral Resources (2)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Milligan (4)</td>
<td>74,788</td>
<td>0.20</td>
<td>336</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Berg</td>
<td>220,284</td>
<td>0.27</td>
<td>1,311</td>
<td>0.03</td>
<td>161</td>
<td>3.08</td>
<td>21,799</td>
</tr>
<tr>
<td>Kemess Underground</td>
<td>173,719</td>
<td>0.18</td>
<td>697</td>
<td>-</td>
<td>-</td>
<td>1.55</td>
<td>8,632</td>
</tr>
<tr>
<td>Kemess East (4)</td>
<td>177,500</td>
<td>0.36</td>
<td>1,410</td>
<td>-</td>
<td>-</td>
<td>1.97</td>
<td>11,240</td>
</tr>
<tr>
<td>Thompson Creek (4)</td>
<td>59,498</td>
<td>-</td>
<td>0.07</td>
<td>85</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Endako</td>
<td>122,175</td>
<td>-</td>
<td>0.04</td>
<td>118</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Measured and Indicated Mineral Resources (2)</strong></td>
<td><strong>157,576</strong></td>
<td><strong>0.20</strong></td>
<td><strong>3,696</strong></td>
<td>-</td>
<td>-</td>
<td><strong>3.05</strong></td>
<td><strong>38,951</strong></td>
</tr>
<tr>
<td>Mount Milligan (4)</td>
<td>125,370</td>
<td>0.19</td>
<td>517</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Berg</td>
<td>396,668</td>
<td>0.31</td>
<td>2,702</td>
<td>0.03</td>
<td>293</td>
<td>3.05</td>
<td>38,951</td>
</tr>
<tr>
<td>Kemess Underground</td>
<td>173,719</td>
<td>0.18</td>
<td>697</td>
<td>-</td>
<td>-</td>
<td>1.55</td>
<td>8,632</td>
</tr>
<tr>
<td>Kemess East (4)</td>
<td>177,500</td>
<td>0.36</td>
<td>1,410</td>
<td>-</td>
<td>-</td>
<td>1.97</td>
<td>11,240</td>
</tr>
<tr>
<td><strong>Total Copper and Silver</strong></td>
<td><strong>873,257</strong></td>
<td><strong>0.28</strong></td>
<td><strong>5,327</strong></td>
<td>-</td>
<td>-</td>
<td><strong>2.45</strong></td>
<td><strong>58,823</strong></td>
</tr>
<tr>
<td>Thompson Creek (4)</td>
<td>117,143</td>
<td>-</td>
<td>0.07</td>
<td>177</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Endako</td>
<td>169,275</td>
<td>-</td>
<td>0.04</td>
<td>166</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Inferred Mineral Resources (20)(3)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Milligan (4)</td>
<td>3,736</td>
<td>0.13</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Berg</td>
<td>13,982</td>
<td>0.26</td>
<td>79</td>
<td>0.02</td>
<td>5</td>
<td>4.39</td>
<td>1,971</td>
</tr>
<tr>
<td>Kemess Underground</td>
<td>47,700</td>
<td>0.20</td>
<td>210</td>
<td>-</td>
<td>-</td>
<td>1.65</td>
<td>2,530</td>
</tr>
<tr>
<td>Kemess East (4)</td>
<td>29,300</td>
<td>0.31</td>
<td>203</td>
<td>-</td>
<td>-</td>
<td>2.00</td>
<td>1,880</td>
</tr>
<tr>
<td><strong>Total Copper and Silver</strong></td>
<td><strong>94,718</strong></td>
<td><strong>0.24</strong></td>
<td><strong>502</strong></td>
<td>-</td>
<td>-</td>
<td><strong>2.18</strong></td>
<td><strong>6,381</strong></td>
</tr>
<tr>
<td>Thompson Creek (4)</td>
<td>806</td>
<td>-</td>
<td>0.04</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Endako</td>
<td>47,325</td>
<td>-</td>
<td>0.04</td>
<td>44</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Footnotes:**

1. Centerra’s equity interests as of this news release are as follows: Mount Milligan 100%, Kemess Underground 100%, Kemess East 100%, Berg 100%, Thompson Creek 100%, and Endako 75%.
2. Mineral resources are in addition to mineral reserves. Mineral resources do not have demonstrated economic viability.
3. Inferred mineral resources have a great amount of uncertainty as to their existence and as to whether they can be mined economically. It cannot be assumed that all or part of the inferred mineral resources will ever be upgraded to a higher category.
4. Production at Mount Milligan Mine is subject to a streaming agreement which entitles Royal Gold to 18.75% of copper sales from the Mount Milligan Mine. Under the stream arrangement, Royal Gold will pay 15% of the spot price per metric tonne of copper delivered. Mineral resources for the Mount Milligan Mine property are presented on a 100% basis.
5. Numbers may not add up due to rounding.
### Table 3
Centerra Gold Inc. - Reconciliation of Mineral Reserves and Mineral Resources (1)-(4) - Gold Contained (koz)

(including disposition of Mongolian segment) (see additional footnotes page 28)

<table>
<thead>
<tr>
<th></th>
<th>December 31, 2018(1)</th>
<th>2019 Throughput(2)</th>
<th>2019 Addition (Deletion)(3)</th>
<th>December 31, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proven and Probable Reserves</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Milligan</td>
<td>4,736</td>
<td>279</td>
<td>(2,050)</td>
<td>2,407</td>
</tr>
<tr>
<td>Kumtor: Open Pit(5)</td>
<td>4,018</td>
<td>708</td>
<td>(96)</td>
<td>3,214</td>
</tr>
<tr>
<td>Öksüt (6)</td>
<td>1,278</td>
<td>-</td>
<td>(4)</td>
<td>1,274</td>
</tr>
<tr>
<td>Hardrock: Open Pit(7)</td>
<td>2,324</td>
<td>-</td>
<td>-</td>
<td>2,324</td>
</tr>
<tr>
<td>Kempt East (8)</td>
<td>1,868</td>
<td>-</td>
<td>-</td>
<td>1,868</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14,223</strong></td>
<td><strong>986</strong></td>
<td><strong>(2,151)</strong></td>
<td><strong>11,086</strong></td>
</tr>
<tr>
<td><strong>Measured and Indicated Mineral Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Milligan</td>
<td>2,722</td>
<td>-</td>
<td>(1,314)</td>
<td>1,408</td>
</tr>
<tr>
<td>Kumtor: Open Pit(5)</td>
<td>2,953</td>
<td>-</td>
<td>3,323</td>
<td>6,275</td>
</tr>
<tr>
<td>Öksüt(6)</td>
<td>211</td>
<td>-</td>
<td>1</td>
<td>212</td>
</tr>
<tr>
<td>Hardrock: Open Pit(7)</td>
<td>66</td>
<td>-</td>
<td>-</td>
<td>66</td>
</tr>
<tr>
<td>Hardrock: Underground(7)</td>
<td>860</td>
<td>-</td>
<td>-</td>
<td>860</td>
</tr>
<tr>
<td>Brookbank: Open Pit(7)</td>
<td>86</td>
<td>-</td>
<td>-</td>
<td>86</td>
</tr>
<tr>
<td>Brookbank: Underground(7)</td>
<td>215</td>
<td>-</td>
<td>-</td>
<td>215</td>
</tr>
<tr>
<td>Key Lake: Open Pit(7)</td>
<td>49</td>
<td>-</td>
<td>-</td>
<td>49</td>
</tr>
<tr>
<td>Key Lake: Underground(7)</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Kempt East (8)</td>
<td>1,737</td>
<td>-</td>
<td>-</td>
<td>1,737</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11,338</strong></td>
<td>-</td>
<td><strong>2,009</strong></td>
<td><strong>13,347</strong></td>
</tr>
<tr>
<td><strong>Inferred Mineral Resources (8)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Milligan</td>
<td>411</td>
<td>-</td>
<td>(356)</td>
<td>55</td>
</tr>
<tr>
<td>Kumtor: Open Pit</td>
<td>149</td>
<td>-</td>
<td>1,207</td>
<td>1,356</td>
</tr>
<tr>
<td>Kumtor: Underground</td>
<td>3,409</td>
<td>-</td>
<td>(285)</td>
<td>3,125</td>
</tr>
<tr>
<td>Öksüt(6)</td>
<td>50</td>
<td>-</td>
<td>(35)</td>
<td>15</td>
</tr>
<tr>
<td>Hardrock: Open Pit(7)</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Hardrock: Underground(7)</td>
<td>1,235</td>
<td>-</td>
<td>-</td>
<td>1,235</td>
</tr>
<tr>
<td>Brookbank: Open Pit(7)</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>Brookbank: Underground(7)</td>
<td>27</td>
<td>-</td>
<td>-</td>
<td>27</td>
</tr>
<tr>
<td>Key Lake: Open Pit(7)</td>
<td>28</td>
<td>-</td>
<td>-</td>
<td>28</td>
</tr>
<tr>
<td>Key Lake: Underground(7)</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Kempt East (8)</td>
<td>529</td>
<td>-</td>
<td>-</td>
<td>529</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,191</strong></td>
<td>-</td>
<td><strong>523</strong></td>
<td><strong>6,722</strong></td>
</tr>
</tbody>
</table>

(1) Mineral reserves and mineral resources reported in Centerra’s Annual Information Form filed in March 2019. Centerra reports mineral reserves and mineral resources separately. The amount of reported mineral resources does not include those amounts identified as mineral reserves. Mineral resources do not have demonstrated economic viability. Numbers may not add due to rounding.

(2) Corresponds to mill process plant feed at Mount Milligan Mine and Kumtor Mine.

(3) Changes in mineral reserves or mineral resources, as applicable, are attributed to: (i) changes to metal price, FX, cost and metallurgical recoveries assumptions; (ii) information provided by drilling and subsequent reinterpretation and reclassification of mineral reserves or mineral resources; and (iii) depletion due to mining.

(4) Centerra’s equity interests as of this news release are as follows: Mount Milligan 100%, Kumtor 100%, Öksüt 100%, Kemness Underground and Kemness East 100% and Greenstone Gold properties (Hardrock, Brookbank, Key Lake, Kempt) 50%.

(5) Kumtor Mine open pit mineral reserves and mineral resources include the Central Pit and the Southwest and Sarytor Pits.

(6) Öksüt Mine open pit mineral reserves and mineral resources include the Keltepe and Guneytepe deposits.

(7) The Company notes that Premier Gold Mines Limited, our 50% joint venture partner in the Greenstone Partnership, has issued a news release in October 2019 announcing a mineral resource estimate for the Hardrock property which was completed by G-Mining Services Inc. Centerra’s technical staff has reviewed the mineral resource estimate prepared by G-Mining on behalf of the Greenstone Managing Partner and raised significant concerns regarding its use of certain technical parameters, as well as the related cost assumptions. Those parameters and assumptions have since become the subject of a legal proceeding involving AuRico Holdings and Premier. Accordingly, an independent third-party expert was retained by Centerra to review the parameters of the resource estimate and a more comprehensive review of the cost assumptions has been undertaken. That work is ongoing. Until such work is complete, Centerra is not in a position to endorse or accept the work product published by Premier and will instead rely on the 2016 Hardrock Technical Report.

(8) Inferred mineral resources have a great amount of uncertainty as to their existence and as to whether they can be mined economically. It cannot be assumed that all or part of the inferred mineral resources will ever be converted to a higher category.
Additional Footnotes for Tables 1, 2, 3

General

- A conversion factor of 31.1035 grams per troy ounce of gold is used in the mineral reserve and mineral resource estimates.

Kumtor Mine

- The mineral reserves have been estimated based on a gold price of $1,250 per ounce, diesel fuel price of $0.55/litre and an exchange rate of 1USD:85KGS.
- The open pit mineral reserves are estimated based on a cut-off grade of 0.85 grams of gold per tonne for the Central Pit and 1.0 grams of gold per tonne for the Southwest and Sarytor deposits.
- The mineral resources have been estimated based on a gold price of $1,500 per ounce, processing operating expenditures of $10.50/t ore, G&A operating expenditures of $8.50/t ore, rehandle operating expenditures of $0.60/t ore, mining sustaining capital expenditures of $0.30/t mined, processing and TSF sustaining capital expenditures of $1.60/t ore and G&A sustaining capital expenditures of $0.20/t ore among other factors.
- Open pit mineral resources are constrained by a pit shell.
- The open pit mineral resources are estimated based on a cut-off grade of 0.85 grams of gold per tonne for the Central Pit and 1.0 grams of gold per tonne for the Southwest and Sarytor deposits.
- Underground mineral resources occur below the open pit mineral resources shell and are constrained by underground mineable shapes based on a cut-off grade of 4.9 grams of gold per tonne.
- Further information concerning the Kemess East project is described in the technical report dated July 14, 2017 and filed on SEDAR.

Mount Milligan Mine

- The mineral reserves have been estimated based on a gold price of $1,250 per ounce, copper price of $3.00 per pound and an exchange rate of 1USD:1.25CAD.
- The open pit mineral reserves are estimated based on an NSR cut-off of $7.64 per tonne (C$9.55 per tonne) and takes into consideration factors such as metallurgical recoveries, concentrate grades, transportation costs, smelter treatment charges and royalty arrangements in determining economic viability.
- The mineral resources have been estimated based on a gold price of $1,500 per ounce, copper price of $3.50 per pound and an exchange rate of 1USD:1.25CAD.
- The open pit mineral resources are constrained by a pit shell and are estimated based on an NSR cut-off of $7.64 per tonne (C$9.55 per tonne) and takes into consideration factors such as metallurgical recoveries, concentrate grades, transportation costs, smelter treatment charges and royalty arrangements in determining economic viability.
- Further information concerning the Mount Milligan Mine deposit, including key assumptions, parameters and methods used to estimate mineral resources and mineral reserves, as well as, political, environmental and other risks are described elsewhere in this AIF and in the Kemtor Technical Report, dated March 20, 2015, which has been filed on SEDAR.

Öksüt Mine

- The mineral reserves have been estimated based on a gold price of $1,250 per ounce and an exchange rate of 1USD:5.5TL.
- The open pit mineral reserves are estimated based on 0.25 grams of gold per tonne cut-off grade.
- Open pit optimization used a tonne weighted LOM metallurgical recovery of 77% (Keltepe – 75%, Guneytepe – 85%).
- The mineral resources have been estimated based on a gold price of $1,500 per ounce.
- Open pit mineral resources are constrained by a pit shell and are estimated based on 0.2 grams of gold per tonne cut-off grade.
- Further information concerning the Öksüt deposit, including key assumptions, parameters and methods used to estimate mineral resources and mineral reserves, as well as, political, environmental and other risks are described in Centerra’s most recently filed Annual Information Form and the Technical Report on the Öksüt Project, dated September 3, 2015, each of which has been filed on SEDAR.

Kemess Underground Project

- The mineral reserves have been estimated based on a gold price of $1,250 per ounce, copper price of $3.00 per pound and an exchange rate of 1USD:1.25CAD.
- The mineral reserves are estimated based on an NSR cut-off of C$17.30 per tonne and takes into consideration metallurgical recoveries, concentrate grades, transportation costs and smelter treatment charges in determining economic viability.
- The mineral resources have been estimated based on a gold price of $1,450 per ounce, copper price of $3.50 per pound and an exchange rate of 1USD:1.25CAD.
- The mineral resources are estimated based on an NSR cut-off of C$15.00 per tonne and takes into consideration metallurgical recoveries, concentrate grades, transportation costs and smelter treatment charges.
- Further information concerning the Kemess Underground deposit is described in the technical report dated July 14, 2017 and filed on SEDAR at www.sedar.com by AuRico Metals Inc. The technical report describes the exploration history, geology and style of gold mineralization at the Kemess Underground deposit. Sample preparation, analytical techniques, laboratories used, and quality assurance/quality control protocols used during the exploration drilling programs are done consistent with industry standards and independent certified assay labs.

Kemess East Project

- The mineral reserves have been estimated based on a gold price of $1,450 per ounce, copper price of $3.50 per pound and an exchange rate of 1USD:1.25CAD.
- The mineral resources are estimated based on an NSR cut-off of C$17.30 per tonne and takes into consideration metallurgical recoveries, concentrate grades, transportation costs and smelter treatment charges.
- Further information concerning the Kemess East project is described in the technical report dated July 14, 2017 and filed on SEDAR at www.sedar.com by AuRico Metals Inc. The technical report describes the exploration history, geology and style of gold mineralization at the Kemess East project. Sample preparation, analytical techniques, laboratories used, and quality assurance/quality control protocols used during the exploration drilling programs are done consistent with industry standards and independent certified assay labs.
Greenstone Gold Property

- The Company notes that Premier Gold Mines Limited, our 50% joint venture partner in the Greenstone Partnership, has issued a news release in October 2019 announcing a mineral resource estimate for the Hardrock property which was completed by G-Mining Services Inc. Centerra’s technical staff has reviewed the mineral resource estimate prepared by G-Mining on behalf of the Greenstone Managing Partner and raised significant concerns regarding its use of certain technical parameters, as well as the related cost assumptions. Those parameters and assumptions have since become the subject of a legal proceeding involving AuRico Holdings and Premier. Accordingly, an independent third-party expert was retained by Centerra to review the parameters of the resource estimate and a more comprehensive review of the cost assumptions has been undertaken. That work is ongoing. Until such work is complete, Centerra is not in a position to endorse or accept the work product published by Premier and will instead rely on the 2016 Hardrock Technical Report.

Hardrock
- The mineral reserves have been estimated based on a gold price of $1,250 per ounce and an exchange rate of 1USD:1.30CAD.
- The open pit mineral reserves are estimated based on 0.33 grams of gold per tonne cut-off grade.
- The mineral resources have been estimated based on a gold price of C$1,625 per ounce.
- Open pit mineral resources are constrained by a pit shell and are estimated based on 0.3 grams of gold per tonne cut-off grade.
- Underground mineral resources occur below the open pit mineral resources shell and are constrained by underground mineable shapes based on a cut-off grade of 2.0 grams of gold per tonne.
- Further information concerning the Hardrock deposit, including key assumptions, parameters and methods used to estimate mineral resources and mineral reserves, as well as, political, environmental and other risks are described elsewhere in this AIF and in the Hardrock Technical Report, dated December 21, 2016, which has been filed on SEDAR.

Brookbank, Key Lake
- The mineral resources have been estimated based on a gold price of $1,455 per ounce and an exchange rate of 1USD:1.18CAD.
- The unconstrained open pit mineral resources are estimated based on 0.50 grams of gold per tonne cut-off grade.
- The unconstrained underground mineral resources are estimated based on 2.8 grams of gold per tonne cut-off grade.

Kailey
- The mineral resources have been estimated based on a gold price of $1,455 per ounce and an exchange rate of 1USD:1.18CAD.
- The unconstrained open pit mineral resources are estimated based on 0.50 grams of gold per tonne cut-off grade.

TC Mine
- The mineral resources have been estimated based on a molybdenum price of $14.00 per pound.
- The open pit mineral resources are constrained by a pit shell and are estimated based on 0.030% molybdenum cut-off grade.

Endako Mine
- The mineral resources have been estimated based on a molybdenum price of $14.00 per pound and an exchange rate of 1USD:1.25CAD.
- The open pit mineral resources are constrained by a pit shell and are estimated based on 0.025% molybdenum cut-off grade.

Berg
- The mineral resources have been estimated based on a copper price of $3.50 per pound, molybdenum price of $14.00 per pound, silver price of 21.00 per ounce and an exchange rate of 1USD:1.25CAD.
- Open pit mineral resources are constrained by a pit shell and are estimated based on a 0.25% copper equivalent cut-off that takes into consideration metallurgical recoveries, concentrate grades, transportation costs, and smelter treatment charges in determining economic viability.
Sources, Pricing and Availability of Materials, Parts and Equipment

Our operations are affected by the availability of diesel fuel, mining equipment and parts, mill equipment and parts, cyanide (Kumtor Mine and Öksüt Mine) and other reagents used in our processing operations at the Kumtor Mine, Mount Milligan Mine and Öksüt Mine.

The Kumtor Mine sources its fuel from Russia either directly or through Kyrgyz Republic distributors.

We have established a hedging strategy using derivative instruments to manage the risk associated with changes in diesel fuel prices on the cost of operations at the Kumtor Mine.

We use expensive, large mining and milling equipment that is internationally sourced and requires a long time to procure, build, and install. Cyanide and other reagents used at our mine sites are sourced locally and internationally based on availability and the required specifications. Pricing for all supplies is based on competitive market pricing.

In addition, the Kumtor Mine is located in a remote area and any interruption to our supply of the foregoing materials, parts, and equipment could have an adverse impact on our future cash flows, earnings, results of operations, and financial condition. Access to the Kumtor Mine has been restricted on occasion by illegal roadblocks and labour disruptions.

Financial and Operational Effects of Environmental Protection Requirements

We are subject to strict environmental regulation in connection with our exploration, development, construction, mining, and reclamation activities in each of the jurisdictions in which we operate. Our policy is to conduct business in a way that safeguards public health and the environment.

The financial and operational effects of our environmental protection requirements are significant. Future legislation, regulations, policies, guidance or other events could cause additional operating expenses, capital expenditures, restrictions or delays in the development and continued operation of our properties, the extent of which cannot be predicted with certainty. For further information of risks associated with environmental matters, see the section entitled “Risk Factors”.

Reclamation Costs and Financial Assurances

All our operations and care & maintenance sites have closure plans or frameworks in place, depending on their current stage of operations. We adopt a strict regime for mine closure including annual mine cost updates and we review our conceptual closure plans on a regular cycle to include both environmental and social impacts of closure. We align with the International Council on Mining and Metals Mine Closure framework and financial surety is in place.

Our conceptual closure plans and related costs will change over time as a result of, among other things, changes in environmental legislation, changes in international best practices, and changes in our understanding of the types of reclamation activities that each site will require.

At the Kumtor Mine, a trust fund has been set up for final reclamation measures. The reclamation trust fund is restricted for use and controlled by an independent trustee. We annually contribute funds to the Kumtor Mine reclamation trust fund based on projected gold production in the year. As at December 31, 2019, the balance in the fund was $40.9 million. As part of the settlement reached with the Kyrgyz Government, the Kumtor Mine agreed to increase the rate of funding of the reclamation trust fund to a minimum of $6 million per year until the fund reaches $69 million. This amount of $69 million was determined by an independent assessment of Kumtor Mine’s current reclamation costs and is broadly in line with our estimated reclamation costs for the Kumtor Mine. See “Centerra’s Properties – Operating Mines – Kumtor Strategic Agreement”.

For our operations in North America, as at December 31, 2019, we provide financial assurance (surety bonds) for reclamation costs of approximately C$45.1 million for Mount Milligan Mine, C$39.0 million for Kemess, C$11.5 million at Endako Mine (reflects our 75% interest in the Endako Mine Joint Venture) and US$51.4 million at TC Mine.

For our Öksüt Mine in Turkey, we provided financial assurances for reclamation costs of approximately $1.44 million. Environmental laws and regulations generally have become more stringent and restrictive over time, including requirements for companies to account for capital expenditures and to provide additional financial security to cover reclamation expenses, even if the reclamation activities may not occur for a significant amount of time. If this trend continues, our reclamation obligations and the related financial assurances we are required to provide may increase. For further information of risks associated with environmental matters, see the section entitled “Risk Factors”.

Centerra Gold Inc.
2019 Annual Information Form
General Description of Financial and Operational Effects for Environmental Protection

The financial and operational effects for environmental protection relate primarily to the following countries where we have operations:

- in the Kyrgyz Republic, where we operate the Kumtor Mine;
- in Canada, where we operate the Mount Milligan Mine, own 100% of the Kemess project, own a 75% in the Endako Mine which is currently on care and maintenance and own a 50% interest in the Greenstone Gold Property;
- in Turkey, where we own the Öksüt Mine and
- in the USA, where we own the TC Mine, which is currently on care and maintenance, and the Langeloth Facility.

Each of our operations have an Environmental Management System ("EMS") that generally aligns with ISO 14001 environmental management systems, and an environmental management action plan which sets out the activities needed to fulfill the site’s EMS. They are designed to address the effects of operations on the environment, to monitor compliance with permits and other requirements, and to provide for scheduled monitoring, engineering controls, reporting and audits. We conduct an internal auditing and monitoring program to ensure compliance with the Kumtor EMS and Environmental Management Action Plan ("EMAP").

All of our operations are different – they present different environmental protection concerns and are subject to differing legislation. As such, the nature of the environmental protection activities and the resulting costs cannot be compared. During the financial year ending December 31, 2019, the approximate expenditures by site on environmental programs were as follows: $7.5 million at Kumtor Mine; $1.83 million at the Mount Milligan Mine; $1.55 million at the Endako Mine; $1.48 million at the Kemess Mine; $1.58 million at the TC Mine, which includes environment and reclamation operating expenses and $0.47 million at the Öksüt Mine.

For further information on the environmental program at each of our operations, please see the relevant disclosure under the heading “Centerra’s Properties”.

Tailings Storage Facilities Management

Overview

Tailings are liquid and solid materials, commonly deposited as slurry, that remain after the extraction of metals and minerals from crushed, ground and processed ore. Tailings are a waste by-product of extraction and are stored in specially designed impoundments that retain solid materials and water. Typically, the water is recovered and recycled back to the mill or is treated for release into the environment.

Centerra actively manages six tailings storage facilities (“TSFs”). Two facilities are currently active, two are on care and maintenance, one is entering the closure phase and the final one is in the early stages of the closure phase. Centerra’s TSFs are actively managed to maintain structural performance and ensure worker, environmental and public safety. Centerra’s TSFs are designed in accordance with all applicable dam safety regulations and requirements. In addition, operation of the TSFs is informed by, and routinely checked against, guidance from the Canadian Dam Association and the International Commission on Large Dams.

Centerra has four types of TSFs: downstream (Kumtor Mine), centreline (Mount Milligan Mine and TC Mine), modified centreline (Kemess South) and upstream (Endako Mine, 2 TSFs). The Öksüt Mine is a heap leach facility and does not have a TSF.

Risk Management Process of TSF

Centerra’s TSFs have all been designed by professional engineers and are constructed, operated and monitored under the guidance of an external engineer of record. Each site has an Operations, Maintenance and Surveillance Manual that sets-out clear expectations for the maintenance and ongoing management of the TSFs to ensure they remain safe and perform as designed.

All of Centerra’s mine sites follow the Canadian Dam Association’s Consequence Classification which assigns a consequence ranking from low to extreme based upon the environmental, safety and economic effects of a potential dam incident. This system does not assign a risk associated with a given TSF; instead, it is intended to evaluate the consequences in the unlikely event of a dam breach. Formal inundation studies have also been completed for each of Centerra’s sites to identify potential community and environmental impacts, including impacts on nearby bodies of water.
in the event of a tailings incident. Used together, Centerra’s sites can evaluate potential risks, evaluate design and mitigation strategies and develop appropriate emergency planning and response.

Centerra has developed a 5-step risk mitigation process that is applied and monitored at each site. These systems and procedures are part of Centerra’s proactive approach to tailings management.

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2.6 Responsible Mining

We endeavour to work in a responsible way to meet or exceed our stakeholders’ expectations. At Centerra, integrity and ethics are the foundation for everything we do. As a team, we are results-focused and strive for continuous improvement without compromising safety or the environment. As an international company, we respect the different needs and values of people and their cultures and operate with transparency to promote stakeholder confidence.

We strive to:

- Meet our targets by ensuring we run safe, efficient, cost-effective mines and projects
- Maximize the value of our existing assets and properties
- Lead our peer group in the areas of workplace safety, shareholder value, business ethics, environmental protection, community development, transparency and governance
- Minimize the potential for harmful impacts from our operations to the lowest levels we reasonably can
- Improve our engagement with potentially impacted Indigenous groups and stakeholders to better respond to their needs and concerns

Our Approach

We have adopted the World Gold Council’s Responsible Gold Mining Principles ("RGMP") upon their introduction in September 2019. The RGMP is an important new industry framework that sets out clear expectations for consumers, investors and the downstream gold supply chain as to what constitutes responsible gold mining. The RGMPs consist of 10 umbrella principles and 51 criteria that focus on Environmental, Social and Governance (“ESG”) best practices. The RGMPs were developed (through a specific ESG taskforce) through a lengthy engagement and consultation process with key industry stakeholders including financiers, investors, non-governmental organizations and civil society. We have been a member of the ESG Taskforce since 2018, offering practical, on-the-ground experience and expertise on a variety of topics, including the development of the external assurance process. In April 2019, Centerra road tested the then draft RGMPs at its Kumtor Mine. In 2020, we began the implementation roadmap of the RGMPs across our operating sites. In 2020, we will focus on remediating areas for improvement identified from the road test at Kumtor, and undertake readiness reviews and self-assessments at our Öksüt Mine and Mount Milligan Mine.

We have adopted formal policies on health, safety, environment and sustainability which reflects our commitments as an organization. We approach our commitment to responsible mining by engaging with potentially impacted Indigenous groups and all of our stakeholder groups who influence, or are influenced, by our activities or performance. Our key stakeholders include employees, contractors, vendors, communities, shareholders, local and national governments, investors and non-governmental organizations.

Putting our corporate responsibility principles into practice at Centerra means:

- Being transparent about our mining activities.
- Respecting the rights of all potentially impacted Indigenous groups, and stakeholders, including our employees, contractors and local communities.
- Operating in a way that minimizes adverse environmental and other impacts.
- Continually improving the management of our operations so that we can respond to the economic, environmental and social expectations of our stakeholders and local Indigenous groups.
- Assigning clear management responsibilities for environmental, social and health and safety performance.
- Providing adequate staffing and resources for sustainable development at each operation.
- Focusing on distributing benefits such as jobs, contracts, community investments, and infrastructure improvements across potentially impacted parties and stakeholders, and also ensuring accountability for any negative direct and indirect impacts from our operations.
- Offering our employees competitive compensation and the opportunity to learn and excel.
- Aligning our activities with “Good International Industry Practice” and going beyond regulations and requirements.
- Maximizing local procurement by encouraging competitive entrepreneurship among potential local suppliers of goods and services to our sites.
• Promoting local hiring and where qualified candidates for available vacancies are equally skilled, giving first priority to those living in the area directly affected by our mining operations.
• Engaging in regular, consistent and meaningful interactions with local communities.

**Governance**

**Board Oversight**

The Sustainable Operations Committee of our Board reviews performance against our goals, policies and systems to ensure we are fulfilling our objectives relating to safety, health, environmental management, and social responsibility. The Sustainable Operations Committee also oversees the process we adopt for donations, sustainable development, investments, and our monitoring and evaluation measurement.

**Management Systems**

We manage safety, health and environmental issues at every site with formal safety, health and environmental management systems that are based on “Good International Industry Practice” ("GIIP"). Managing our risks and mining responsibly require that we plan before we do work, check by monitoring progress against our plan and act on what we have learned through audits and other forms of verification.

**Assurance Program**

From time to time, internal and external audits are performed by auditors to make sure our facilities comply with our safety, health and environmental policies, applicable laws and regulations, and generally accepted GIIP. These risk-based programs identify concerns and help us improve our performance.

As a part of the RPMG, we will be required to obtain external assurance from a third-party independent assurance provider.

**Employee Health and Safety**

We recognize the protection of the health and safety of our employees, contractors, and the public as vital to our vision of building a team-based culture of excellence that responsibly delivers sustainable value and growth development. We are committed to conducting all of our activities including exploration, development, construction, operations and decommissioning in a responsible manner and in alignment with Centerra’s Values, providing a safe and healthy environment for our employees, contractors, visitors and to the general public. To prevent injuries and safety incidents, we use proactive measures, such as job hazard identification, training, competency reviews, job task analysis, workplace and field inspections, and safety risk assessments. To avoid recurrence, we investigate all incidents to identify the root causes and proper mitigation efforts. The information is shared among all of our operations and projects. All operations and projects are staffed with skilled and competent emergency personnel and equipped with emergency response equipment.

Our collective agreements cover health and safety topics such as preventing injuries and diseases, safety equipment supply and workplace monitoring to ensure employees are protected against hazards. We engage systematically with unions and employees to promote safety everywhere we work. Our approach is the same with our contractors and vendors.

**Work Safe, Home Safe Program**

In 2016, we introduced a safety leadership initiative, Work Safe, Home Safe, which forms the foundation of our safety culture at Centerra. The Work Safe, Home Safe program was developed following extensive input from all levels of the organization throughout our global business units, and assistance from third party consultants. The focus of the program is to build a Company-wide culture of safety and safety leadership by providing employees with information which will lead to changes in safety related behaviour, deliver an emotional element to build a commitment to change, and encourage communication to improve operational practices related to health and safety matters. Substantially all of our employees in the organization have undergone our Work Safe, Home Safe training. Throughout 2018 and 2019, we rolled out a second phase of the Work Safe, Home Safe initiative which focused on supervisor leadership development training program. We also introduced and implemented key safety leadership field interactions between Centerra’s senior and line management personnel and employees called Visible Felt Leadership.

**Environmental Protection**

Environmental stewardship is vitally important to us, local communities and potentially impacted Indigenous groups. We focus on improving our practices so that we inform, prevent, reduce or mitigate damage to the natural habitats that provide essential resources to our employees and surrounding communities.
### Spills
- We act to prevent spills and ensure that safeguards are in place in order to minimize the environmental impacts associated with any unforeseen incidents.
- Through our emergency response plan and our Environmental Management System, we seek to go beyond compliance in identifying risks and hazards so we can prevent foreseeable incidents and emergencies. We also use root cause analysis to identify the causes of incidents when they do occur.

### Cyanide
- Cyanide is used to recover gold from ore and is an essential part of our Kumtor Mine and Öksüt Mine operations.
- Our approach to cyanide management at all of our operations which use cyanide reflects the International Cyanide Management Code, which is recognized as an international best practice. This code helps protect human health and reduce the potential for environmental impacts.

### Water and mine waste
- To ensure effective water and mine waste management, we measure and monitor water quantity and quality and mine waste stability.
- Our approach to water management takes public safety, community health and environmental protection into consideration.
- Our water and mine waste management design, layout and closure plans also consider the risks associated with climate change, including increased storm intensity, drought and receding glaciers.

### Air
- We monitor air quality at our operations and take actions to control air borne pollutants from mining activities.

### Biodiversity
- Biodiversity conservation is an important part of our reclamation process management strategy and, in keeping with our zero harm goal, we look for innovative ways to promote biodiversity wherever we operate.

### Waste Management (non-mining)
- We have established industrial waste segregation at our projects. We have introduced organic composting at our Kumtor Mine and are considering options to recycle at other mines.

## Our Employees

### Employee Rights
We are one of the most attractive employers in the regions in which we operate. We pay fair salaries and provide our workers with various benefits; we comply with local legislation and make sure our employees are supplied with a high-quality products and safety gear. We strive to meet and exceed country requirements for working conditions and comply with all relevant International Labour Organization (ILO) requirements and the European Bank for Reconstruction and Development (EBRD) performance requirements. The benefits available to our full-time employees, which while varying in the offerings site by site, are comprehensive and include pension, family benefits, and health care, compensation for job related accidents or occupational diseases, and unemployment insurance. Benefits for full time employees also include scheduled wage increases and employee loans. We support collective bargaining with unions to reach collective agreements. Approximately 65 percent of Centerra’s employees are covered by collective bargaining agreements. Centerra has a Respectful Workplace Policy that prohibits discrimination and harassment on any grounds, including a person’s sex, age, race, national or ethnic origin, ancestry, place of origin, citizenship, creed/religion, colour, disability, marital status, family status, sexual orientation, gender identity, gender expression, or conviction for which a pardon has been granted.

### Diversity and Equal Opportunities
Centerra recognizes that not only is it important to have a workforce comprised of the demographics of the communities in which it operates, but also that diversity brings value to the workplace. Centerra has various policies, guidelines, training, procedures and agreements at each of its operations, unique to each region, to bring the most cultural diversity and value to each workplace while respecting the cultures, communities and people within each of the regions within which it operates. Centerra maintains culturally diverse recruitment practices, training of its workforce on cultural sensitivities in applicable regions, and management practices that reinforce principles of diversity and cultural
acceptance. Some of the cultures in which we work, and national legislation, create barriers to achieving greater gender diversity, but we currently have good (above industry standard) representation in professional ranks.

The Company launched a leadership program for women (Leading from Within) across its entire organization in 2018, focusing on developing its female employees to achieve their full career potential, including enhancing their network and positioning them for career success. Implementation of the program is ongoing, with approximately 130 women across the organization participating to date.

This women’s leadership program is part of a longer-term diversity and inclusion plan at Centerra, which is meant to consider how the Company can promote diversity and inclusion in the broadest sense across the organization. While the initial focus of the plan is gender diversity, actions taken as part of the women leadership program to improve the working environment and opportunities for women will be beneficial for all employees and increase diversity more broadly across the organization. The longer-term objective of the diversity and inclusion plan for Centerra is to embrace diversity and inclusion in all the ways that people can be different – including visible differences such as gender, race, age, and physical appearance, as well as religion, nationality, disability, sexual orientation, and education. In 2020, we are rolling out this diversity and inclusion strategy with the formation of a Diversity and Inclusion Steering Committee, unconscious bias training, education and awareness campaign, and mentorship programs.

**Employee Training**

Employee training and career development is integral to maintaining strong and positive employee growth and improving organizational performance. Enhancing the knowledge and skills of a workforce is fundamental to improving the productivity of operations and efficiency of the business. In some instances, equipment or safety training is critical to legislative compliance or maintaining safe and healthy workers and a safe and healthy workplace.

Our approach to developing our employees is dependent on the geographical region, location needs, individual employee needs, or training objective to be achieved. We deliver training to satisfy governance requirements (i.e. ethics and insider trading awareness), safety requirements, developmental & career objectives, and technical job training, among other needs. Training needs are identified by direct managers or supervisors, through the performance planning and career development process, by HR or training departments, or as requested directly by employees. Training delivery is accomplished through a combination of external vendors and programs and internal qualified trainers.

Training success and the performance of training programs is dependent on the training itself. At a base level, measurement in terms of percentage of penetration of the workforce is essential, for example, as in Code of Ethics training. Safety training is also provided and tracked in terms of percentage of workforce trained as a leading indicator, with a longer-term focus on monitoring incident and injury rates over time. Individual training is provided and monitored on an employee to manager relationship basis through the performance management and career development processes.

**Social Performance**

We understand that partnering with local communities and Indigenous groups for social and economic development creates value for us and the local areas in which we operate. We work to establish and maintain the trust of local communities and Indigenous groups by acting as a good corporate citizen.

We have a fully accessible and active grievance management and resolution process for each of our operations and development projects. We believe this is a powerful mechanism to improve communication with local communities and Indigenous groups.

**Community Engagement, Development and Social Investment**

For all our operational sites and projects, we draft a specific Community Development Plan ("CDP") that includes our approaches to participatory assessment, delivery, community ownership, and monitoring, and the criteria for philanthropic donations.

We adopt an International Finance Corporation ("IFC") Guideline approach to strategic community investment and economic development wherever possible, with annual budgets based on both impact mitigation needs and benefit sharing (sustainable development opportunities to minimize dependency).

We believe it is important to provide assistance to local communities and Indigenous groups in reaching their goals to develop the local economy, and for the well-being of local residents. Taking into account that mine closure will have a
direct impact on the region’s economy, it is a priority to have a structured and planned approach in community investment projects.

The following describes how the Company engages in the communities in which it operates, and its approach to development and social investments at each site. The investments discussed below are in addition to the millions of dollars paid by the Company pursuant to the revenue based tax paid in respect of the Kumtor Mine, taxes at the Mount Milligan Mine and the Öksüt Mine, local procurement undertaken at each operation, and payments and other benefits made pursuant to formal agreements with potentially impacted Indigenous groups.

**Kumtor Mine**

Kumtor Mine believes that effective stakeholder communication is essential for it to manage social responsibility and to provide assistance to the local communities in which it operates. Kumtor Mine’s local engagement is maintained through four regional information centres, established in the Jeti-Oguz and Ton districts. The main objective of these centres is to provide information about Kumtor Mine to local residents. This includes information relating to Kumtor Mine’s hiring procedures, human resources policies, job vacancy information, as well as the donations policy, social investments and sustainable development projects. Regional sustainable development officers attend local community events, monitor the implementation of development projects funded by KGC, and act as a point of first contact for members of local communities. In addition to these structured activities, other types of formal and informal engagements occur on a regular basis across the local communities, with a range of other stakeholders such as community leaders, community organizations, local small businesses, and farmers. To ensure partnerships based on consensus we initiated the establishment of Regional Committees in Jeti-Oguz, Ton and Balykchy. Committee members are local authorities, heads of village councils, representatives of civil society organizations, members of different unions. In these meetings, KGC management raise issues about operations and define plans for investment projects in liaison with local communities. Decisions are made together with the representatives of each Committee so that KGC’s investments meet the expectations and needs of communities.

On a regular basis, we host one-day visits to the Kumtor Mine for interested parties, including representatives of state bodies, local authorities, partner organizations, and teachers and students from various educational institutions.

Kumtor Mine’s contributions to the community and social investments take a variety of forms. Kumtor Mine contributes 1% of gross annual revenues to the Issyk-Kul Development Fund. This fund is governed by an oversight and steering committee (independent of KGC), which includes local government representatives and non-governmental organizations. The fund is designed to develop the socioeconomic infrastructure of the Issyk-Kul Region in accordance to local and regional government priorities. Since the creation of the fund in 2009, KGC has invested more than $678.4 million into projects as diverse as kindergartens, schools, sports clubs, and irrigation infrastructure across the Issyk-Kul region. KGC has the right to coordinate 50% of overall funds to ensure a transparent and fair spending of the selected projects in the interests of social and economic development of the Issyk-Kul region, especially of communities located on the southern coast of Lake Issyk-Kul, including Balykchy town.

In addition, Kumtor Mine carries out its own community investment projects, which is focused on providing support in the following main areas: (i) business growth and diversification, particularly small businesses and entrepreneurs; (ii) providing support to development of the agricultural sector; (iii) Youth and educational projects; and (iv) environmental protection. Occasionally, Kumtor Mine partners with international and local organizations to maximize the impact of our community investments.

Kumtor Mine also provides on-off donations, usually in the form of in-kind equipment or services. Kumtor Mine receives many requests for support from across the country. It has established a Kumtor Mine donations committee to review and approve donations. KGC conducts follow up monitoring visits on a regular basis to ensure that the donations are used for the intended purposes. Most of the donations are provided for the purchase of furniture for schools and kindergartens, food baskets for identified vulnerable groups, support of sports tournaments, scholarships for promising students from vulnerable families, and Kyrgyz Republic cultural events.

**Mount Milligan Mine**

To facilitate community input on Mount Milligan Mine’s activities, including community programs, the Mount Milligan Community Sustainability Committee ("CSC") has been operating since 2008. The CSC is comprised of representatives from the communities and Indigenous groups of McLeod Lake Indian Band, Nak’ażdí Whut’en, Mackenzie, Fort St. James, Vanderhoof and Prince George. The CSC meets 3-4 times each year, including an annual summer meeting held at the mine site.

In addition to providing input on mine activities and updates on community developments, a primary responsibility of the CSC since 2016 has been allocating the funding provided through the Mount Milligan Community Project Fund. This
fund is a component of the Mount Milligan Legacy Program, which was set up in 2014. The Legacy Program contributes to healthy communities and grants regional sustainability by focusing on people through such things as health and education programs and attempting to promote a diverse post-mining economy by doing business locally where competitive and practical. The Community Project Fund provides financial support to local organizations working to build capacity at the community level in one or more of the following priority areas: education and training, health, environment, community (including economic development) and literacy.

In addition to the Community Project Fund, Centerra also runs a British Columbia-wide Donation Program to facilitate the Company’s support of local community-based events and organizations. In 2019, the Company provided funds in excess of $50,000 to support youth sports teams, arts organizations, health and education-focused initiatives and recreation clubs in our local communities. In addition to this program, each year Mount Milligan Mine sponsors a number of community education and training programs through the local community college, such as First Aid certification and computer skills upgrading classes.

To advance our commitment to education and training, since 2015 Mount Milligan Mine has been running a Mining Education Program each spring which consists of educational mine tours for local elementary and high school students as well as classroom presentations made by mine employees. Mount Milligan Mine also provides a number of academic bursaries each year to high school graduates from the mine’s local communities, and in 2018 made a 3-year, $45,000 commitment to support a Water Stewardship and Ecosystem Health Program run by the local School District.

Each summer, Mount Milligan Mine hosts mine tours for members of our local communities at no cost. Participants see the multiple aspects of the mine’s operations up close and learn about the Company’s employment and training initiatives, environmental management, health & safety programs and community partnerships. On the tour, community members have an opportunity to speak with mine employees from a number of different departments, and ask questions about the mine and the Company’s activities. In 2019, we ran 6 community tours that saw over 80 visitors to the mine site.

In 2015, we entered into a partnership with the local community college to run Community Offices in Fort St. James and Mackenzie. At the two college campuses, information on our operations and activities in British Columbia are available, including community programs and current job postings. Front desk staff receive training so that they can field questions or concerns by phone, email or in-person as well as assist community members with online employment applications. Contact information for Centerra Gold’s regional Sustainability Department is also available for those who wish to contact the Company directly with a questions or concern.

**Endako Mine**

Although Endako remains in Care & Maintenance, a focus on local community engagement and investment remains. A regional Community Liaison Committee brings together members of local government, community-based organizations and Indigenous groups annually to review and discuss mine activities. Annual environmental reports are shared with local Indigenous groups and the Company supports, and participates in, local community events and celebrations. Endako also hosts a community BBQ as part of BC Mining Month each May to provide updates to local residents on the mine’s activities and in 2019, held its first community Fishing Derby, attended by over 80 community members.

**Öksüt Mine**

Construction activities began in March 2018 at the Öksüt Project. In 2019, we continued to focus on consistent and transparent stakeholder engagement to help us with our sustainable development and capacity building programs. We commenced stakeholder consultations regarding participatory community investments in the second quarter of 2018 and have continued these activities throughout 2019. In 2019, we completed community investment projects in the areas of youth education, sports, and culture. Ongoing projects include, but are not limited to, community health, sustainable income opportunities, and infrastructure improvement. In 2019, we also completed the important livelihood restoration projects for displaced shepherds in the local region, including providing them with alternative means to continue with their activities. This included such projects as renovating access roads for shepherds and farmers.

We also continued to develop our capacity building plans to maximize local employment and local procurement.

**Indigenous Relations**

Our Mount Milligan, Endako, Kemess Underground, and Greenstone Gold Properties are located in close proximity to multiple Indigenous communities. Our objective is to have mutually respectful and meaningful relationships with all Indigenous groups impacted by our operations and activities.
**Mount Milligan Mine**

Mount Milligan Mine has strong relationships with the Indigenous groups surrounding the mine site, built on trust and open dialogue. Formal agreements are in place with two Indigenous groups, McLeod Lake Indian Band and Nak'azdli Whut'en, that outline provisions concerning employment & training, environmental management and business opportunities. Both agreements include financial payments made by Centerra and outline provisions for agreement implementation committees, composed of Company and Indigenous representatives.

In addition to implementation committees, both Indigenous groups have created liaison positions to facilitate their close working relationship with the Company. These liaisons visit the mine site on a monthly basis to provide support to Indigenous employees at the mine site and meet with the Human Resources team to discuss training and recruitment initiatives. Representatives from McLeod Lake Indian Band and Nak'azdli Whut'en also sit on the Mount Milligan Community Sustainability Committee.

To advance Indigenous employment at Mount Milligan Mine and build capacity within our local communities Centerra, McLeod Lake Indian Band and Nak'azdli Whut'en partnered together along with the local community college to develop and run a customized pre-employment training program for members of both Bands. The program’s curriculum was developed based upon the specific skills and core competencies required for employment at the mine as well as the valued components of the Indigenous groups, such as health and wellness. Upon completion of the program, students have the opportunity to apply for dedicated contract positions at the mine. The program has run for two years with 18 graduates moving into employment positions with the Company.

Across the region, Mount Milligan Mine regularly participates in career fairs and seminars hosted by Indigenous groups, and provides academic bursaries to Indigenous students graduating from high schools within our region. To support cross-cultural understanding and relationship-building, each year, Centerra participates in cultural celebrations, community events, and hosts cultural events throughout the mine site each year.

**Endako**

Endako Mine is located near a number of Indigenous groups, the two closest to our operations being Stellat’en First Nation and Nadleh Whut’en. In 2018, Centerra began negotiations on an Impact Benefit Agreement with Stellat’en First Nation and Nadleh Whut’en, significantly advancing the relationship between the Company and the communities through the discussion of benefits-sharing provisions and collaborative environmental management processes. These negotiations continued throughout 2019.

**Kemess Underground Project**

Indigenous relations remain a primary focus for Kemess Underground as the project moves toward full construction. In 2017, an Impact Benefit Agreement was signed with three of the groups in the area of the project, Tsay Keh Dene, Takla Lake First Nation and Kwadacha Nation, together referred to as Tse Keh Nay (“TKN”).

**Greenstone Gold Property**

The Greenstone Gold Property is located in Northeastern Ontario near several Indigenous communities. The Greenstone project team is actively engaged with these communities and are committed to dealing with them in a fair and transparent manner such that they are fully aware of the benefits and potential social and environmental impacts of the proposed mine development, and to receive their comments and input into the development of the project. Over the course of 2018 and 2019, the Greenstone Partnership entered into definitive agreements with Long Lake #58 First Nation, the Métis Nation of Ontario Secretariat Inc. and Aroland First Nation, Animbiigoo Zaagi’igan Anishinaabek, and Ginoogaming First Nation.
3. **CENTERRA’S PROPERTIES**

3.1 **Operating Mines**

Our producing gold mines are Kumtor Mine, Mount Milligan Mine and Öksüt Mine.

**Kumtor Mine**

*Quick Facts*

The Kumtor Mine, located in the Kyrgyz Republic, is one of the largest gold mines in the former Soviet Union operated by a non-domestic producer.

The Kumtor Mine has been in operation since 1997.

In 22 years, Kumtor Mine has produced approximately 12.6 million ounces of gold.

<table>
<thead>
<tr>
<th>Location</th>
<th>Kyrgyz Republic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ownership</strong></td>
<td>100%</td>
</tr>
<tr>
<td><strong>Business Structure</strong></td>
<td>Our wholly-owned subsidiary, Kumtor Gold Company CJSC (defined above as KGC), is the holder of the rights to the Kumtor Mine</td>
</tr>
<tr>
<td><strong>End Product</strong></td>
<td>Gold doré</td>
</tr>
<tr>
<td><strong>Mine Type</strong></td>
<td>Open pit</td>
</tr>
<tr>
<td><strong>Estimated Mineral Reserves</strong></td>
<td>3,214 koz of contained gold (proven and probable)</td>
</tr>
<tr>
<td>(as at December 31, 2019)</td>
<td>average grade – 2.31 g/t</td>
</tr>
<tr>
<td></td>
<td>tonnage – 43,295 k tonnes</td>
</tr>
<tr>
<td><strong>Estimated Mineral Resources</strong></td>
<td>66,275 koz of contained gold (measured and indicated) – open pit</td>
</tr>
<tr>
<td>(as at December 31, 2019)</td>
<td>average grade – 3.03 g/t</td>
</tr>
<tr>
<td></td>
<td>tonnage – 64,499 k tonnes</td>
</tr>
<tr>
<td>Inferred mineral resources have a great amount of uncertainty as to their existence and as to whether they can be mined economically. It cannot be assumed that all or part of the inferred resources will ever be upgraded to a higher category.</td>
<td>1,356 koz of contained gold (inferred) – open pit</td>
</tr>
<tr>
<td></td>
<td>average grade – 2.01 g/t</td>
</tr>
<tr>
<td></td>
<td>tonnage – 20,987 k tonnes</td>
</tr>
<tr>
<td></td>
<td>3,125 koz of contained gold (inferred) – Underground</td>
</tr>
<tr>
<td></td>
<td>average grade – 7.54 g/t</td>
</tr>
<tr>
<td></td>
<td>tonnage – 12,883 k tonnes</td>
</tr>
</tbody>
</table>
### Processing Method
Milling, flotation, ultrafine grinding and CIL

### Total Production to December 31, 2019
12.6 million ounces of gold

### 2019 Production
600,201 ounces of gold

### 2020 Forecasted Production
520,000 – 560,000 ounces of gold

### 2020 Forecasted All-In Sustaining Costs on a by-Product Basis\(^{(1)}\)
$750-800 per ounce of gold sold

### 2020 Forecasted All-In Sustaining Cost on a by-Product Basis Including Taxes\(^{(1)}\)
$940 – 1,005 per ounce of gold sold

### Estimated Mine Life
2026

### Employees (excluding long term contractors)
2,631

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\(^{(1)}\) All-in sustaining costs per ounce sold, all-in sustaining costs per ounce sold on a by-product basis, all-in sustaining costs on a by-product basis including taxes per ounce sold and all-in sustaining costs on a co-product basis (gold and copper) on a per unit basis are non-GAAP measures and are discussed under “Non-GAAP Measures”.

### Technical Report

### Property Description, Location and Access
The Kumtor Mine is located in the Tien Shan Mountains, some 350 km to the southeast of the national capital Bishkek and about 60 km to the north of the international boundary with the People’s Republic of China, at 41°52’ North and 78°11’ East. The Kumtor Mine mill is situated in alpine terrain at an elevation of approximately 4,016 m, while the highest waste and glacial mining excavations occur above an elevation of 4,400 m. The main camp, administration and maintenance facilities are at about 3,600 m. As the area is seismically active, all facilities at the Kumtor Mine, including the process plant and tailings storage dam, have been designed in accordance with recommended seismic standards for the area.

Access to the Kumtor Mine is by a main road that runs between Bishkek and Balykchy, on the western shore of Lake Issyk-Kul, a distance of 180 km. A secondary road running along the south shore of the lake leads to the town of Barskaun for another 140 km, and a final 100 km must be traversed on a narrow, winding road leading into the Tien Shan Mountains that climbs to an elevation of 3,700 metres (“\(m\)”) through 32 switch backs to reach the Kumtor Mine. The Kumtor Mine has done considerable work to maintain this access road and, despite occasional avalanches and movements of gravel and till down steep slopes during heavy rains, there has not been any extended period during which the road has been out of service.

Most employees work a two-week rotation, and are transported between the mine site from Bishkek and the Issyk-Kul region using a company-owned commuter bus service. Supplies are transported by rail to the Kumtor Mine marshalling yard in Balykchy at the west-end of Lake Issyk-Kul and then trucked 250 km to the mine site. A helicopter pad is available at the mine site.

Under our Restated Concession Agreement with the Kyrgyz Republic, effective June 6, 2009 (the “Restated Concession Agreement”), we were granted a concession with exclusive rights to all minerals within an area of approximately 26,000 hectares (“ha”) centered on the Kumtor Mine gold deposit (the “Concession Area”) and with an expiry date of December 4, 2042. As of June 6, 2009, when the Restated Concession Agreement came into effect, all of the prior existing mining and exploration licenses and associated agreements held by us terminated and were superseded by the Restated Concession Agreement.

Other than taxes and fees described below under the heading “Mining operations – Taxes”, there are no royalties, payments or other agreements or encumbrances related to the Kumtor Mine.

The Kumtor Mine is comprised of the main Central deposit and two smaller satellite deposits known as the Sarytor deposit and the Southwest deposit.
All of the mineral deposits, the tailings management facility, waste dumps and the processing plant are located within the Concession Area.

**Concession Area**

![Concession Area Map]

**Restated Investment Agreement**
The Restated Investment Agreement with the Kyrgyz Republic dated as of June 6, 2009 provides the following guarantees with respect to the Kumtor Mine operations:

- such access to the Kumtor Mine, including all necessary surface lands, together with access to water, power and other infrastructure, as is necessary or convenient for the operation of the Kumtor Mine;
- that the Kyrgyz Government will support further and additional exploration activity by us in the Kyrgyz Republic by inviting us to consider opportunities to acquire additional exploration and mining licenses; and
- all licenses, consents, permits and approvals of the Kyrgyz Government necessary for the operation of the Kumtor Mine.

**Significance to the Kyrgyz Republic**
The Kumtor Mine plays a particularly important role in the economic and political life of the Kyrgyz Republic. It is one of the largest private sector employers of Kyrgyz Republic citizens, is the largest foreign investment in the country and represents a significant portion of the country's gross domestic product, export earnings and total industrial production. The importance of Kumtor Mine to the Kyrgyz Republic economy means that it has a very high profile within the country. Accordingly, Kumtor Mine continues to be at the centre of political and public attention in the Kyrgyz Republic.

**Disputes and Threats of Nationalization**
The Kumtor Mine has been the subject of numerous disputes in the past, including lawsuits and legislation that challenged the validity of the decrees, agreements and licenses that govern the title, operation and taxation of Kumtor Mine, and calls for nationalization of the Kumtor Mine. See the “Risk Factors” section of this AIF.
**Labour and Employment Matters**

As of December 31, 2019, the Kumtor Mine had 2,631 permanent employees (excluding long-term contractors), of which approximately 98.5% are Kyrgyz Republic citizens. The Kumtor Mine is unionized and all of our national employees in the Kyrgyz Republic (including at the regional head office) are subject to our collective agreement with the Trade Union Committee. The current collective bargaining agreement, which was ratified in December 2018, expires on December 31, 2020. A prolonged work stoppage at any time during 2020 or any subsequent year could have a significant impact on Kumtor Mine achieving its forecasted production. See the “Risk Factors” section of this AIF.

**History**

Intermittent exploration in the general Kumtor Mine area dates back to the late 1920s.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
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</table>
| 1978    | • Debris from the Sarytor deposit is discovered by a geophysical expedition of the state Kyrgyz Republic Geology department sampling float from the frontal moraine of the Sarytor Glacier.  
• The sole outcrop of what is now called the Central deposit was found during follow-up prospecting. |
| 1979 to 1989 | • A systematic evaluation of the Central deposit, and to a lesser extent of the Southwest deposit, was carried out consisting of several phases of surface trenching and geological mapping, diamond drilling and underground development on three levels culminating in a detailed sampling program of the central upper part of the Central deposit. |
| 1990    | • An initial reserve statement is issued by the Soviet Union State Committee on Reserves. |
| 1991    | • Soviet Union breaks up and Kyrgyz Republic emerges as an independent country.  
• Cameco Corporation (“Cameco”), Centerra’s former parent company becomes aware of the project. |
| 1992    | • Centerra’s former parent company concludes an agreement with the Kyrgyz Republic regarding the project, and retains a third-party consultant to undertake a feasibility study of the project. |
| 1992-1993 | • The Kumtor Mine feasibility study is completed. The feasibility work program included data verification (by re-sampling parts of the underground openings and re-assaying of original sample rejects), additional and definitive metallurgical test work, and a re-estimation of mineral resources and reserves using geostatistical methods, a block model and pit optimization software. |
| 1994    | • An update to the Kumtor Mine feasibility study is completed. |
| 1994    | • A project development agreement is finalized with the Kyrgyz Government. Pursuant to this agreement, Cameco Gold Inc. (“Cameco Gold”), through its wholly-owned subsidiary Kumtor Mountain Corporation, held a one-third interest in KGC, a Kyrgyz Republic joint stock company that owned the concession giving it exclusive rights to develop the Kumtor Mine. Kyrgyzaltyn held the remaining two-thirds interest in KGC. KOC, then a wholly-owned subsidiary of Cameco Gold, acted as operator of the Kumtor Mine. We are the successor to substantially all of the gold business previously carried on by Cameco Gold, which was a wholly owned subsidiary of Cameco. |
| 1995    | • A further update to the Kumtor Mine Feasibility Study is completed. |
| 1995    | • Financing arrangements for the Kumtor Mine are concluded. |
| 1996    | • Project construction is completed. |
| 1997    | • After capital expenditures of approximately $452 million, mining of the Central pit commences, and commercial production is achieved. |
### Geoloogical Setting, Mineralization and Deposit Types

**Geology**

The Kumtor Mine gold deposit occurs in the middle of the Tien Shan metallogenic belt, a Hercynian fault and thrust belt that traverses Central Asia from Uzbekistan in the west through Tajikistan and the Kyrgyz Republic into northwestern China, a distance of more than 2,500 km. This belt hosts a number of important gold deposits including Muruntau, one of the world's largest gold deposits, as well as Zarmitan, Jilau and the Kumtor Mine.

The mine geology is dominated by several major thrust slices and fault zones which strike north-easterly and dip to the southeast at varying but moderate angles. Each thrust sheet contains older rocks than the sheet it structurally overlies. The slice hosting the gold mineralization is composed of metasediments of Vendian age (youngest Proterozoic or oldest Palaeozoic) that are strongly folded and schistose. In most areas, the Kumtor Fault Zone ("KFZ"), a dark-grey to black, graphitic gouge and schist zone forms the footwall of this structural segment. The KFZ has a width of up to several hundred metres. The adjacent rocks in its hanging wall are strongly affected by folding, shearing and faulting for a distance of up to several hundred metres. The rocks in the structural footwall of the KFZ are Cambro-Ordovician limestone and phyllite, thrust over Tertiary sediments of possible continental derivation which in turn rests, with apparent unconformity, on Carboniferous clastic sediments.

Given its location astride a major fault of regional importance and owing to the strong association of gold mineralization with a multi-phased metasomatic system at relatively high temperatures, the Kumtor Mine gold deposit, with its satellite deposits, is a member of the class of structurally controlled meso-thermal gold replacement deposits.

**Mineralization**

Gold mineralization of economic importance occurs where the Vendian sediments have been hydrothermally altered and mineralized based on structural controls. Gold mineralization is developed over a strike distance of more than 12 km. The Central deposit is the most important accumulation identified to date and has considerable dimensions with a strike length of 2.4 km, a vertical extent of one km and a width of up to 300 m. Other known occurrences along the mineralized trend are the Southwest deposit and Sarytor deposit.

Mineralization took place in four main pulses. An initial pulse resulted primarily in pervasive quartz-carbonate-albite-chlorite-sericite-pyrite alteration, with little gold of economic consequence being deposited. The next two pulses deposited all of the economically significant gold at the Kumtor Mine. Feldspars make up nearly 20% of the ore, carbonates (calcite, dolomite, ankerite and siderite) collectively 25% to 30%, pyrite 15% to 20%, quartz 5% to 10% and the remainder are host rock inclusions.

The mineralization is most intense, and the gold grade is the highest, where the metasomatic activity was continuous through mineralization phases two and three. This is the case for the Stockwork and SB Zones and explains the higher-than-average gold grades in these zones. The last pulse created planar carbonate-pyrite metasomatic rocks that are associated with zones of intense deformation of previously altered phyllites.

Native gold and the gold-silver tellurides are intimately associated with pyrite to the extent that gold grade and pyrite content generally correlate. The gold and the gold-bearing minerals occur as very fine inclusions in the pyrite, with an average size of only 10 microns. This, together with the poor cyanide leach response of the gold tellurides, accounts for the partly refractory nature of the Kumtor Mine mineralization. The refractory characteristics are reflected in the

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>• Kyrgyzaltyn and Cameco Gold sells us all of their shares in KGC (and KOC) effective June 22, 2004 in exchange for, among other consideration, common shares in Centerra. Accordingly, we now hold a 100% interest in the Kumtor Mine.</td>
</tr>
<tr>
<td>2006</td>
<td>• Ore deliveries from the Southwest deposit commence.</td>
</tr>
<tr>
<td>2009</td>
<td>• Project agreements from 2004 are amended and restated and approved by the Kyrgyz Republic Parliament.</td>
</tr>
<tr>
<td>2016</td>
<td>• Kumtor Mine completes and issues the Kumtor Technical Report.</td>
</tr>
<tr>
<td>2017</td>
<td>• Mining and ore deliveries from the Sarytor deposit commence.  • Kumtor Strategic Agreement signed (September 11, 2017).</td>
</tr>
<tr>
<td>2019</td>
<td>• Kumtor Strategic Agreement completed in August 2019.</td>
</tr>
</tbody>
</table>
relatively low historic and forecasted gold recovery of approximately 80%, despite the very fine grind applied to the pyrite flotation concentrate from which most of the gold at Kumtor Mine is recovered. However, the fine grain size of the gold also renders assaying of this mineralization relatively reliable, with only a small nugget effect.

Most of the mineralization takes the form of veins, veinlets and breccia bodies in which the mineralization forms the matrix. In the more intensely mineralized areas, the surrounding host rock has also been altered. Post-ore faulting is generally parallel to, or at low angles with, the mineralized sequence. These faults often carry significant quantities of graphite and other carbonaceous components, which constitute the sources for the preg-robbing character of some of the mineralization.

The Central Deposit

Within the Central Deposit, three general sectors of gold mineralization have been delineated. For the purposes of resource modelling, these sectors have been sub-divided into separate zones and domains based on mineralization and alteration characteristics. The three general sectors are described below.

- Two parallel sectors of alteration and gold mineralization strike northeasterly and dip to the southeast at 45 degrees to 60 degrees, separated by 30 m to 50 m of barren or poorly mineralized rock. The South sector, with a length of 700 m to 1,000 m and a horizontal width of 40 m to 80 m, is reasonably well mineralized throughout its entire length, with an average gold grade of 3 to 4 grams of gold per tonne. The North sector, somewhat more extensive along strike but with a similar width, has lesser gold grade continuity and splits into a number of individual lenses that have average gold grades in the range of 2 to 3.5 grams of gold per tonne.

- At their northeastern end, the North and South sectors coalesce into the Stockwork sector. Its dimensions in the upper part of the deposit are 400 m to 500 m long by 50 m to 200 m wide, with an average gold grade of 5 to 6 grams of gold per tonne. The Stockwork sector plunges northeasterly at 40 degrees to 50 degrees, and diminishes in size below an elevation of 3,700 m. Geographically, the Stockwork sector is located closest to the pit highwall and thus has a large effect on the overall strip ratio of the pit. Drilling further extended the Stockwork sector down dip and outlined a higher-grade core beneath the bottom of the planned open pit.

- In the southwestern part of the Central Deposit, the SB Zone and the Hockey Stick zone (structurally a part of the South sector) top out at an elevation of 3,900 m. The discovery of the SB Zone gave rise to a large increase in the mineral reserves of the Central deposit in 2005. Drilling since 2008 has extended the SB Zone along strike to the southwest and northeast increasing the current known strike extent to 1,000 m, a vertical extent of 650 m, and a width that ranges from 6 m to 75 m, with grades in the range of 5 grams of gold per tonne. The 2018 and 2019 drilling campaign extended the Hockey Stick zone up dip to a similar elevation (3800m) as the SB Zone. This, in part, contributed to the increase of the mineral resources at Kumtor Mine for the year ended December 31, 2019.

- The Stockwork and SB Zones are separated by the Saddle Zone, a narrow but consistent zone of moderate grade mineralization generally located along the hanging wall contact of a broader zone of lower grade mineralization up to 200 m in width.

The Southwest and Sarytor Deposits

The Southwest deposit is located three km to the southwest of the Central deposit across the Davidov glacier, along the Kumtor Mine fault. Exploration drilling carried out in the past has defined the southwestern limit of the SB Zone and the northeastern limit of the SW Deposit below the glacier, with a barren gap of approximately 600 m. To the southwest, the Southwest Deposit is covered by the Sarytor Glacier, beyond which additional mineralization is known as the Sarytor Deposit.

The structural/lithological framework of the Sarytor and Southwest deposits is identical to those of the Central deposit with structural dips generally at angles ranging from 20 degrees to 50 degrees, somewhat shallower than at the Central deposit.

The Sarytor deposit is located further southwest from the Southwest Deposit. The two deposits are interpreted as being contiguous below the Sarytor Glacier. The main geological structures are common for the Southwest and Sarytor Deposit. Drill results indicate that the mineralized section in the Sarytor Deposit strikes east-west and dips south at 20 degrees to 30 degrees. The thickness of the overall mineralized package is relatively consistent and varies from 80 m to 120 m, with the strike length of the known mineralization being approximately 800 m.

Host rocks are structurally disturbed slates and phyllites with lenses of till-like conglomerates and dolomitic slates. Development of background alteration is weak and represented mainly by vein-type silicification. Unaltered host rocks
do not carry any elevated gold values. The mineralized package has been traced by drilling for 200 m to 300 m down dip.

The mineralized package is composed of stacked lenses varying in thickness from 2 m to 60 m, with an average thickness of approximately 20 m. The mineralized lenses are typically separated by approximately 2 m to 15 m of poorly mineralized host rocks. Alteration intensity and zone thickness increase southward. Metasomatism is represented by banded albite-carbonate-quartz alteration with 3% to 5% pyrite. Barite and siderite are well developed in the southern part of Sarytor. As a rule, pyrite content generally correlates with the gold grade.

**Exploration, Development, and Production**

**Exploration**

The principal exploration data acquisition method at the Kumtor Mine is diamond drilling. There is a large historical drill hole database (augmented by underground exploration results) dating back to Soviet times. To a large extent, this information is no longer relevant to the current mineral reserve estimate, since the upper parts of the Central Deposit, to which the historical information pertained, have now been mined out. Models for the Southwest and Sarytor Deposits use very little historical Soviet era data. There are only small areas in the current mineral reserves that rely on Soviet data, and these old data is progressively being verified by in-fill or replacement drilling.

As a result of the lack of sufficiently detailed information in the Central Deposit below an elevation of 3,950 m, about 28% of the Kumtor Feasibility Study open-pit mineral reserves, which contain one-quarter of the total gold to be mined, had been substantially less well documented than the upper part of the deposit. To fill this information gap, and to explore for extensions to the known mineralization, Kumtor Mine undertook a large in-fill diamond drill program in the years 1998 to 2013, comprised of 879 holes in the Central Deposit totaling 308,183 m and 613 holes on other targets totaling 115,770 m. Drilling was undertaken from various pit benches and setups outside of the pit, including setups on the waste piles. The drilling has increased the density of the drill pattern in the lower part of the deposit to equal to or better than that available at the time of the Kumtor Feasibility Study for the above the 3,950 m elevation. The cut-off grade utilized in the Central Deposit is 0.85 g/t Au and 1.0 g/t Au for the Southwest and Sarytor Deposits.

In the Central, Southwest, and Sarytor Deposits, the drill holes are now generally spaced 30 m to 40 m along strike and 40 m to 80 m down-dip in geologically complex areas, and at 80 m along strike and 60 m to 80 m down-dip in other areas.

The majority of the Kumtor Mine diamond drill holes are steeply inclined HQ-size core, except when ground conditions necessitate a reduction in core size to NQ. For all of the holes, drill collars are surveyed and down-hole deviations are measured at intervals of 20 m to 30 m using a reflex single shot camera. Limitations on set-ups dictate that a certain number of off-section holes are drilled. Drill cores are logged for geological and geotechnical information, and are photographed prior to sampling. Drill-collar coordinates, down-hole deviation surveys, assay results, and information on lithology, alteration and mineralization are recorded in the mine or exploration drilling database.

Drill core recovery typically varies from 80% to 100%, averaging greater than 95%. In certain cases where the core recovery from mineralized intervals is low, the hole is stopped and re-drilled to achieve better core recovery. There is no evidence that core recovery issues impact the reliability of the gold assay data used for mineral resource and reserve estimation. The angle of intersections between the drill holes and the mineralization is generally such that the true width of the mineralization is equivalent to 70% to 95% of the length of mineralized drill-hole intervals.

In 2019, we continued to execute the two-year 60,000 m exploration drill program which began in July 2018 and was designed to test potential extensions of gold mineralization along the Kumtor Mine trend, with a focus on prioritizing near-mine exploration opportunities and increasing open-pit mineral resources on the flanks of the Central Pit, focusing on the Hockey Stick Zone and the SB Zone.

In 2018, $6.1 million was spent on exploration activities at Kumtor Mine. A total of 24,381 m in ninety-two drill holes were completed in 2018, including 2,308 m of infill drilling in the SB zone for the Kumtor Underground Project. Exploration drilling focused on testing zones of mineralization near the surface for additional open pit resources on the north-east side of the Central Pit, at the corridor between the Central and Southwest pits, and on the flanks of the Northeast target area.

In 2019, $17.3 million was spent on exploration drilling programs in the Central and Southwest pits, Hockey Stick Zone, north-east target area and Sarytor deposit. A total of 67,750 m in 260 drill holes were completed in 2019, including 26,868 m of infill drilling in the SB and Hockey Stick Zones.

In the end of 2019, first-ever airborne electromagnetic survey (2,606 km) was completed over the Kumtor Trend.
Underground Mining

The mineral resources for the Kumtor Mine underground have decreased to 3,125koz at end-2019 from 3,409koz at the end of 2018 due to the open pit resources increasing as a result of the 2018 and 2019 exploration drilling.

Previous efforts were made from 2006-2012 to develop and ultimately mine by underground methods those high-grade portions of the SB and Stockwork Zones that fell outside of the ultimate pits of earlier Central Pit mine designs. Due to changes in the final pit design for the Central deposit that were approved in 2012, much of the underground infrastructure was consumed and accordingly, Centerra derecognized approximately $180 million in costs relating to the underground development.

No changes were made to the Kumtor Mine underground project in 2019 other than to deplete the resource due to the expanded Central Pit resource. In 2016, we reviewed our underground resource model and reinterpreted the mineralized structures and their along strike and down dip extents. We also applied a lower cut-off grade of 4.9 g/t (compared to the 6.0g/t used for resource estimates as at December 31, 2015).

Production

For production information for the Kumtor Mine in 2020, see “2020 Guidance”.

Sample Preparation, Analysis and Data Verification

All sample collection, preparation and assaying from the 1998 to March 2013 drilling programs were performed by Kumtor Mine personnel at the Kumtor Mine owned site laboratory, which is not certified but is subjected to periodic calibration and operations checks by the Kyrgyz Republic National Accreditation Agency. Sample collection protocols are monitored by the Kumtor Mine Quality Assurance/Quality Control (“QA/QC”) geologist. Laboratory preparation and assay protocols are supervised by the chief assayer at the Kumtor Mine.

Quality control procedures have evolved over time. Prior to 2008, the internal quality control measures at the Kumtor Mine laboratory consisted of the routine insertion of internally prepared standards and a blank at a combined rate of one standard and one blank per 22 samples. Quality control checks were routinely performed on reject duplicates. In addition, a minimum of 20% of the total samples from the Kumtor Mine drill programs have been re-assayed using the fire assay method with a gravimetric finish.

In early 2008, the mine laboratory introduced four standards and a blank from CDN Resource Laboratories and reassaying of all batches that fail the internal QA/QC limits became automatic. The mine laboratory routinely re-assayed duplicate pulps at a rate of 20% as an internal check on assay precision. The revised protocols introduced in 2008 have resulted in a significant reduction in duplicate assaying of waste material and a marked improvement of the reliability of assays within mineralized zones.

From 2008 to early 2013, all external check assaying on reject duplicates had been undertaken at Alex Stewart Assayers and Environmental Laboratory (“ALS”) located in Kara Balta, which has had ISO 9001 accreditation since 2007 and participates in an international laboratory round-robin organized by Geostats Pty Ltd. In late 2012, an audit of the KGC laboratory and QA/QC procedures was conducted by Lynda Bloom of Analytical Solutions Laboratory. Based on recommendations of this independent audit, QA/QC protocols were modified and primary exploration drill sample analysis was moved from the mine site to ALS effective April 2013.

The QA/QC program was modified to include the insertion of a coarse blank three in every 100 samples and the insertion of reference material two in every 100 samples. The selection of reference material was reduced from forty-four to ten.

Samples were dispatched from the mine site to ALS twice weekly by Cher SGB Company. As the drill holes are located within the Central, Southwest and Sarytor pits and transported directly to the ALS laboratory, the validity and integrity of the samples along the chain of custody is assumed and additional security of samples is not required in this mining environment.

The assay method used was fire assay with atomic absorption finish. Gold grades over 100 ppm were re-analyzed via fire assay with ICP MS. The results were reported back to the mine site within two days after receipt of samples by the laboratory.

The Central Scientific Research Laboratory (“CSRL”) in Kara-Balta was used as a check lab to ALS. Although CSRL is not a certified lab, it was deemed adequate for use as a check lab. Checks were routinely made on a twice quarterly basis with four pulps randomly selected from one hundred, including low and high gold materials. Blanks and standards were similarly inserted as in the primary analysis.
There are no drilling, sampling or recovery factors that could have a material impact on the accuracy or reliability of the current mineral reserve and resource estimate.

**Mineral Processing and Metallurgical Testing**

For a discussion on “Mineral Processing and Metallurgical Testing” by Centerra, see “– Mining Operations” below.

**Kumtor Mine Mineral Resource and Reserve Estimates**

For information on the Kumtor Mine mineral reserves and mineral resources, see “Mineral Reserves and Resources” starting on page 23.

For information, the resource model update for the Central, Sarytor and Southwest Deposits was prepared in the first quarter of 2020, with the database cut-off date as of January 2020, by the Centerra Technical Services department. The final Open Pit surface used to report the resource estimate was December 31, 2019. The updated litho-structural interpretation was used as a basis for the final mineralized domains interpretation. The updated interpretation was completed manually using a gold cut-off grade of 0.5 g/t, on a section by section basis (40m spacing) and by using the ARANZ Leapfrog software where suitable. The grade distribution and the gold values were interpolated into blocks using Ordinary Kriging (OK) and Inverse Distance squared (ID2) in Datamine, Studio RM modeling software (version 1.5.62.0).

The various resource estimation parameters and approaches were updated such as, capping levels and grade estimation parameters with implementation of dynamic anisotropy where suitable.

**Mining Operations**

**Mining**

Mining operations at the Kumtor Mine use conventional open pit mining methods. Mining in the Central Pit is done on 10 m benches. Ore at the Southwest and Sarytor pits will also be mined on nominal 10 m benches split if required for better mining selectivity of the narrower ore zones.

Blast holes are drilled using five diesel-powered Sandvik DR-460 rigs and five Drilltech D55SP rotary-percussion drill rigs, with a hole diameter of 200 mm. Charging the holes is undertaken by special bulk explosives trucks delivering either ammonium nitrate with fuel oil, or emulsion explosives for wet holes. The explosives consumption is about 0.21 kg per tonne of ore or waste.

**Milling**

The current Kumtor Mine mill flowsheet reflects the fine-grained nature of the gold and its intimate association with pyrite and consists of crushing, grinding, pyrite flotation and double re-grinding of the flotation concentrate. Two separate carbon-in-leach circuits recover the gold from the re-ground concentrate and from the flotation tails, with final gold recovery accomplished by carbon stripping, electrowinning and refining. The mill throughput in 2019 was approximately 6,325 million tonnes.

The ore to be milled is managed through a number of stockpiles that receive ore of different metallurgical character and of different grade ranges as determined by grade-control data and thus allow blending of the mill feed for optimum gold recovery. A gyratory crusher reduces run-of-mine ore to minus 200 mm. The ore is then fed to a coarse ore stockpile from which it is reclaimed for grinding, first to a semi-autogenous (“SAG”) mill and then to a ball mill, which together reduce the grain size to 80% passing 140 microns. A bulk sulphide concentrate representing 7% to 11% of the original mill feed is then produced with a grade of 30 to 50 grams of gold per tonne and a gold recovery of 87% to 92% into the concentrate.

The flotation concentrate is re-ground in a ball mill to approximately 90% passing 20 microns. After thickening to 50% solids, it is once more re-ground to 95% to 98% passing 20 microns in an ultra-fine grinding mill (“IsaMill”). The IsaMill was commissioned in October 2005 and provides additional incremental liberation of the fine gold (2-5 microns) enclosed in pyrite. The concentrate is diluted to 45% solids, pre-aerated for 40 hours and leached for 80 hours in the concentrate CIL circuit consisting of six agitated tanks in series.

The flotation tailings are thickened to 50% solids in the flotation tailings thickener and leached in the flotation tailings CIL circuit, which consists of three agitated tanks in series. Cyanide additions and carbon concentrations are lower in the tailings CIL circuit compared to the concentrate CIL circuit. Overflow from all four thickeners is recycled through the process.

The carbon in both CIL circuits is moved forward counter-current to the slurry flow, and the loaded carbon from the first flotation tailings CIL tank is pumped to the third concentrate CIL tank to continue loading. Loaded carbon from the first concentrate CIL tank is pumped to the gold recovery plant. The loaded carbon is stripped, and the gold subsequently...
recovered by electro-winning. Gold flake is washed from the cathodes, dried and smelted in an induction furnace and cast into doré bars.

Gold recovery is affected by the preg-robbing character of some of the ore due to active graphite. This negative effect is moderated by adding diesel fuel, as a masking agent, to the SAG and the re-grind mills, and through blending to control the percentage of ore with preg-robbing characteristics in the Mill feed.

Historically, the overall Mill recovery is 78% to 80%, averaging 79.4%. Based on the experience to date, future annual recoveries can be expected to range from 54% to 80%, depending on the head grade, ore source, and ore characteristics.

Concentrate CIL tailings and flotation CIL tailings are combined and discharged by gravity to the tailings disposal area through a slurry pipeline system.

Starting in 2019, Kumtor Mine has been extracting gold from water from the Kumtor Mine tailings pond using loaded carbon. The solids found in tailings pond water contains dissolved gold which, when combined with activated carbon, will be absorbed into the carbon. The carbon is then removed, and the resultant gold is brought to the Mill for further processing in the normal course of operations. In 2019, Kumtor Mine had 5 tanks carrying out this work and recovered approximating 5,600 oz of gold. In 2020, the Company expects to produce approx. 10,000 oz using this process.

In addition, Kumtor Mine has recovered gold from “carbon fines”. In the production process at the Kumtor Mine mill, loaded carbon is used to absorb gold. During the process, the carbon will deteriorate to a point where it must be removed from the Mill as carbon fines. Kumtor Mine further processes these carbon fines, which contain residual gold, and the product of the processing is then brought to the Mill for further processing. In 2019, approximately 17,500 oz of gold was recovered. In 2020, the Company expects to produce approx. 12,000 oz using this process.

Processing and Recovery Operations
For “Processing and Recovery Operations”, see “– Mining Operations” above.

Infrastructure, Permitting and Compliance Activities
For information regarding the general infrastructure of the Kumtor Mine, see “– Property Description, Location and Access” above. The Kumtor Mine consists waste rock dumps, Mill complex, camp facility, the TMF with related water treatment facilities, upper fuel farm, heavy duty maintenance shop, and other associated mine infrastructure.

Tailings Management Facility
The TMF is located in the Kumtor River valley and consists of twin tailings pipelines (each approximately 6.5 km in length, one is the standby line), a downstream tailings dam, an effluent treatment plant and two diversion ditches around the area to prevent runoff and natural watercourses from entering the tailings basin. These facilities received approval from the Kyrgyz Government in 1999 to be constructed to an ultimate dam crest elevation of 3,670.5 m.

The existing TMF will reach its permitted capacity in 2020, and the existing tailings dam will need to be raised to a final height of 3,677.5 m to accommodate the tailings to be processed for the current LOM plan. The tailings dam will be raised in two phases to the ultimate height. Each increase will require that KGC obtain necessary permits. We obtained the necessary permits from Kyrgyz Republic authorities in March 2017 and commenced construction activities for the first phase of the tailings dam raise in April 2017. We expect this phase to be completed in 2020. This will raise the tailings dam to an elevation of 3,674.5 m.

The second phase of the tailings dam raise is expected from 2021 to 2024 which will raise the dam to an elevation of 3,677.5 m. We received in January 2018 approval to raise the tailings dam to this elevation, subject to the approval of the final detailed design which is scheduled to be submitted in 2020.

Since the time of its construction, the dam foundation has experienced horizontal deformations, with the Kyrgyz Republic Institute of Rock Mechanics initially raising concerns in 1999. A shear key and toe berm were added to the TMF and have been effective in controlling the rate of horizontal deformations. The dams and appurtenances are regularly inspected by KGC personnel during routine work at the facility and have been visually inspected on an annual basis since 2007 by independent geotechnical consultants. The consultants reported the dam appurtenances to be in good condition and functioning as required.
**Geotechnical Issues Affecting the Kumtor Open Pit**

**Pit Wall Stability**

The final open pit walls of Central pit will have a vertical extent of up to 620 m in the SB Zone (up to 960 m if the natural slope above is considered) and up to 750 m in the Stockwork Zone. In general, there is a higher risk associated with increasing wall heights that could result in a reduction of planned slope angles as the open pit deepens.

In the past, operations at Central Pit have been negatively affected as a result of two substantial failures of the bedrock highwall that forms the northeastern limit of Central Pit in the Stockwork Zone. While less severe deformations have occurred in other parts of the open pit these two failures are the most significant.

The first northeast highwall failure in the Stockwork Zone occurred on July 8, 2002 and resulted in the temporary suspension of operations leading to a shortfall in 2002 production because the Stockwork Zone was rendered temporarily inaccessible. A second failure of similar magnitude occurred on July 13, 2006, in an area above the Stockwork Zone that was planned to be mined in 2006 and 2007.

Following the second ground wall movement, KGC, Golder and Centerra continued to assess the causes of the pit wall failure and developed remedial measures and long-term pit slope design criteria that would reduce the possibility of a recurrence. This work provided insight into the mechanisms of failure through a comprehensive program of structural mapping, geotechnical drilling and modelling. As a result of this work, in 2010, the northeast highwall design was revised from a slope angle of 36 degrees to a slope angle in the order of 30 degrees. This design decreases the probability that the known structures that gave rise to the two wedge failures will undercut the reconfigured slope design (reducing the potential for another wall failure). Mining from the area was then deferred and concentrated on the southern part of the Central Pit to exploit the SB Zone discovered in 2005. Since 2006, the inactive highwall has been stable based on the monitoring data collected from the pit wall monitoring systems.

Mining activities have re-entered the northeast highwall area during 2018 and will continue over the coming years as part of pre-stripping and mining activities associated with cutback #20. The safety of the highwall design depends on the state of its depressurization. If the highwall is not or cannot be sufficiently depressurized and proves to be unstable at the current slope angles, the Mineral Reserves and LOM plan for this part of the Central Pit would be adversely affected. The portion of the Lysii Glacier providing meltwater to the northeast highwall was mined out in 2018 and should help to mitigate against most surface water entering the highwall.

Based on the 2014 slope design angles completed by Golder a reduction of the pit walls to generally between 26 degrees and 34 degrees has been incorporated in the open pit design. The design slope angles assume that the pit walls are depressurized, and drilling to accomplish depressurization is part of the mine plan. KGC plans to maintain an active drilling depressurization program throughout open pit mining and continue with its surface dewatering efforts. Over 2016, Golder completed a review of the site dewatering and depressurization plans and provided recommendations that are considered in mine planning activities. In 2018, Golder Associates reviewed the pit wall design of cut-back#20 to be developed in the northeast wall and provided recommendations for enhancing the cutback’s stability and dewatering measures.

The southern part of the Central Pit which exploits the SB Zone has undergone several revisions to its slope design angles. The slope angles of 36° originally specified in 2006 were revised to approximately 30 to 34 degrees for most sectors (excluding the northwest wall sector that is 26 degrees) as part of Golder’s 2014 update. These revisions were required as a result of raveling and deformation of the rock slopes during previous mining activities and determined using a substantial amount of geotechnical drilling and structural interpretation work completed after 2006. The southeast wall showed the largest deformation over 2016 and 2017. Geotechnical drilling, laboratory testing, and structural mapping has been completed with focus on this sector. Advanced stability modelling has been completed to optimize the wall configuration and confirm design slope angles with Golder’s 2014 recommendations. Geotechnical stability modelling for the northeast highwall area has been undertaken in 2018 and will continue into 2020 to optimize the wall configuration and confirm the slope design angles with Golder’s 2014 recommendations.

In early 2019, a localized wall deformation was observed in cutback #19. The deformation has occurred in a sector where it was not possible to change the inter-ramp slope angle due to the presence of upper overlying major haul road. The deformation process was stopped by implementing remedial measures such as leaving a 50m wide step-out at the toe of the deformation, building loading buttress and amending pit wall configuration to recommended parameters. In the same year Kumtor Mine has retained consulting companies to assess settlement of processing plant foundation and develop potential options to mitigate the displacements of the underlying ground that were induced by permafrost degradation and water infiltration. As a result, a series of remedial measures that include ground improvement techniques were developed and are being implemented now.
The additional geotechnical information gathered to date has shown that the structural features causing slope instability dip into the pit at relatively shallow angles (more or less parallel to the pit slopes) in two major sectors (northwestern and eastern walls). The pit walls are now designed to avoid undercutting of these structures. The safety of the walls depends on the accuracy of the structural geological model, which is being continuously refined and updated, as well as the ability to depressurize water-bearing faults and structures. KGC conducts regular geotechnical consultant site visits throughout each year to validate the structural geology model, geotechnical model assumptions, and to inspect the general behavior of the pit slopes versus long term predications.

Glacier Ice

In order to access the Mineral Reserve, KGC is required to mine glacial ice. There is uncertainty in predicting the rate at which Davidov Glacier ice mining has to be accomplished to develop the southern part of Central Pit. The volume of ice mining and the additional mining equipment required to accomplish this are therefore subject to upward revision, possibly in a substantial way. In 2014, high movement rates of the South Arm of Davidov Glacier required the construction of a 90 m high toe buttress constructed of waste rock mined from the Central Pit to provide for safe mining below. Should ice mining not keep up with the forward ice movement, or a similar toe buttress be ineffective for managing glacier ice movements from future cutbacks, interruptions to the LOM plan with respect to mining of the SB Zone would occur, with negative implications for the mine plan and the project cash flow.

Waste Rock Dumps

The LOM plan requires waste rock to be deposited in waste rock dumps located in the Davidov, Sarytor, and Lysii Valleys. The waste rock dumps are on top of permafrost, fine-grained moraine soils, with high ground ice content within the Davidov and Sarytor Valleys and to a lesser extent, the Lysii Valley. In December 2019, Centerra had to suspend open-pit mining operations at the Kumtor Mine after it experienced a significant waste rock dump failure at the Lysii Waste Rock Dump which resulted in two employee fatalities. Open pit mining operations remained temporarily halted for approximately a month because of the need to focus on search and rescue efforts but also because 100% of the waste rock being mined was to be placed on the Lysii Waste Rock Dump located in the Lysii valley. In the beginning of 2020 Kumtor Mine has received all the necessary approvals and permits to re-commence open pit mining operations and to continue milling activity for the remainder of 2020. The relevant Kyrgyz regulatory authorities have approved the Company's 2020 mine development plan for the Central Pit Development, including the revised waste rock dumping plan and special safety measures to place waste rock material in the Central Valley Waste Rock Dump and the Sarytor Waste Rock Dump. The investigation of Lysii waste rock dump failure is ongoing. We also constantly monitor the movement of the waste rock dumps and have undertaken several studies, including numerical modelling, to increase our understanding of the factors contributing to the waste rock dumps movement. Where necessary and prudent, we have taken additional action to reduce the rates including changes in where waste rock is placed on the various waste rock dumps (including using a “bottom-up strategy” of waste rock placement, dewatering ditches, and other dewatering strategies).

Petrov Lake

Petrov Lake is a glacier lake that has formed with the retreat of Petrov Glacier and is located approximately 5 km upstream of the tailings dam. The lake has formed due to glacier meltwaters being dammed by a natural terminal moraine which is mostly frozen and likely contains buried glacier ice. Thawing of the moraine dam, to an extent that it allows for piping or overtopping of the dam, may lead to a dam breach and the uncontrolled release of lake water that can potentially erode a section of the tailings dam and damage other downstream facilities. KGC considers any damage to the tailings dam a serious threat. Climate change is considered the most likely mechanism for initiating thawing. While the risk of an uncontrolled release occurring during the life of the mining operation is considered low, this is a future event that needs to be considered for mine closure. An early warning system has been installed to determine structural changes in flow and possible acceleration in seepage through the moraine dam. The water level behind the moraine dam is being managed to a historically low level substantially reducing the possibility of an uncontrolled release of water. In addition to that, the Company is filling the so-called Blue Bay with inert waste rock material to strengthen the natural moraine dam and decrease the rate of permafrost and ice lenses thawing.

Environmental Conditions

The Kumtor Mine has a formal EMS in place as well as an EMAP which are designed to address the Kumtor Mine’s environmental related legal requirements. The Kumtor Mine EMS aligns with the ISO-14001 standards for determining and managing environmental aspects associated with its activities. The Kumtor Mine EMS addresses impacts of the operation on the environment and monitors compliance with the various permits issued by the Kyrgyz Republic authorities. The system provides scheduled monitoring, engineering controls and reporting on the following areas:
The EMAP outlines Kumtor Mine’s environmental and safety commitments, including the regulations applicable to the Kumtor Mine. Under the EMAP, Kumtor Mine is obligated to comply with the most stringent of the following standards on any particular environmental aspect:

- the environmental laws of the Kyrgyz Republic and the current KGC Occupational Health and Safety guidelines
- Canadian federal laws
- Saskatchewan provincial laws

In addition to internal auditing and monitoring, external audits of environmental aspects are conducted on a regular basis; the results and recommendations (if any) of which are reviewed by us and implemented where possible.

Each Kyrgyz Republic enterprise with activities that have a potential negative impact on the environment must develop and maintain an ecological passport ("Ecological Passport") providing for the basic levels of impact on the environment, including the level of maximum allowable emission ("MAE") and maximum allowable discharge ("MAD"). The Ecological Passport is developed every five years and must be approved by the Kyrgyz Government authority responsible for environment protection (currently Kyrgyz Republic State Agency for Environmental Protection and Forestry ("SAEPF")).

The Ecological Passport identifies some of the permits and approvals required by Kumtor Mine for its operations, with annual permits required for MAE norms, MAD norms and water usage limits. The MAE norms and permits define the release of emissions into the air. There are two MAD norms and two permits regulating the discharge of treated effluents into surface water bodies, one to operate the tailings area treatment plant and the other to operate the sewage treatment plant. There are also water usage limits for the Kumtor Mine and for the Balykchy marshalling yard. The MAE and MAD norms and permits are designed to ensure that the water quality standards for communal use streams are met at the mixing zone in the Kumtor River just outside the mine site. Water usage limits must also be renewed on an annual basis. The Kumtor Mine has obtained its MAE and established its water usage limits for 2019. The permits for discharges and emissions in 2019 were received in a timely manner.

The Ecological Passport for the Kumtor Mine was obtained in December 2017 and is valid until December 2022. Kumtor Mine’s Ecological Passport for the Balykchy marshalling yard was updated in July 2019.

A number of other certificates, permits and licenses are required by various departments of the Kyrgyz Government with respect to the use of potentially toxic chemicals, transportation of dangerous goods, importing of blasting materials and sodium cyanide. All such approvals are currently valid and in good standing.

See the section of this AIF entitled “Risk Factors”.

Emergency Response Plan and Handling of Hazardous Materials

The Kumtor Mine has an Emergency Response Plan (the “Kumtor ERP”) and hazardous material transportation procedures. We conduct quarterly mock exercises to test different aspects of the Kumtor ERP, including response time, effective communications and the skills of the emergency response team and we have updated the Kumtor ERP to ensure notification protocols remain valid and improvements from the mock exercises are incorporated in the plan. The update remains valid and meets all Kyrgyz Republic legal requirements and follows international standards.

The Kumtor Mine’s cyanide transporation operation from the Balykchy Marsalling Yard to the Kumtor Mine was initially certified in compliance with the Cyanide Code in April 2012, recertified again in September 2015, and most recently again in December 2018. Re-certification is required by the International Cyanide Management Cyanide Code every three years.

In November 2011, and again in September 2015, the Kumtor Mine operations (with respect to transportation of cyanide) were audited against the International Cyanide Management Code for the Manufacture, Transport and Use of
Cyanide in the Production of Gold. The audit was conducted by an independent consultant and on both occasions the operation was deemed to be in substantial compliance with the Code.

Decommissioning and Reclamation

We update Kumtor Mine’s conceptual closure plan (“CCP”) every three years. The CCP was last updated by an independent consultant in 2019. This approach of reviewing the CCP every three years allows for the development and adaptation of the CCP and provides a period for testing and monitoring of several years to evaluate the various options contemplated by the CCP. The CCP will be reviewed again in 2022. The CCP will be followed by the development of a final closure plan closer to the end of mine life that will consider the results of the testing and monitoring as well as any changes to the environmental, regulatory and social environment that may have occurred over the life of the mine.

Under the Restated Investment Agreement, all immovable infrastructure items will become the property of the Kyrgyz Government at the end of the mine life. This includes roads, buildings including the mill building, accommodations and any other related facilities but not the operating machinery.

The CCP covers all aspects of the Kumtor Mine, including (but not limited to) the Central pit (which will become a lake), mill complex and surrounding area, tailings basin, stockpiles and other surface facilities. Equipment, building and other structures will be salvaged to the maximum extent possible. The data presented in the CCP indicates that the acid rock drainage potential of both waste dumps and tailings is very low and is unlikely to be a concern in the long term. The CCP makes recommendations for further data collection and monitoring of the various aspects important for the closure plan.

A trust fund has been set up for final reclamation measures. The reclamation trust fund is restricted for use and controlled by an independent trustee. As at December 31, 2019, the balance in the fund was $40.9 million. Historically, we have contributed funds annually to the reclamation trust fund based on the annual gold production in the previous year. As part of the Kumtor Strategic Agreement, KGC agreed, on the terms and subject to the conditions contained in the Kumtor Strategic Agreement, to increase the rate of funding of the reclamation trust fund to a minimum of $6 million per year until the fund reaches $69 million. This amount of $69 million was determined by an independent assessment of Kumtor Mine’s current reclamation costs and is broadly in line with our estimated reclamation costs for the Kumtor Mine.

Social and Community Factors

For information on Social and Community factors relating to the Kumtor Mine, see “Responsible Mining” and “Kumtor Strategic Agreement”.

Capital and Operating Costs

For information on the capital and production costs for the Kumtor Mine for 2020, see “2020 Outlook”.

Taxes

The Restated Investment Agreement establishes a comprehensive tax regime for the Kumtor Mine effective January 1, 2008 and continuing until the termination of the Restated Concession Agreement. Except for the payments set out below, the Kumtor Mine is exempt from all other present and future taxes.

Except as expressly provided in the Restated Investment Agreement, the rates, amounts and other terms of any taxes or other payments are not subject to any future change in legislation or treaty provisions which would be more burdensome to the Kumtor Mine or Centerra. The Kumtor Mine and Centerra are entitled to benefit from any generally applicable future change in legislation or treaty provisions with respect to taxes or other payments payable under (b), (g), (h), (j) and (k) below which is beneficial to any of them. To the extent any rates that are capped by the provisions of (b), (g), (h), (j) and (k) below are decreased due to a change in legislation, such rates can be increased by a future change in legislation, provided that any such increased rates from time to time shall not exceed the rates in effect on April 24, 2009.

The taxes provided for in the Restated Investment Agreement are as follows:

(a) a tax on gross revenue of 13%, payable monthly (the “Gross Proceeds Tax”);
(b) customs administration fees at generally applicable rates, which are not to exceed those rates in effect on April 24, 2009;
(c) a contribution of 1% of gross revenue to the Issyk-Kul Oblast Development Fund (the “Issyk-Kul Contribution”);
(d) an annual payment of 4% of gross revenue against which all capital and exploration expenditures in the Kyrgyz Republic are fully credited, with expenditures not required for credit in any particular year carried forward for credit in future years;

(e) an environmental pollution charge of $310,000 per year;

(f) a land use and access fee of $1,250,000 per quarter, against which the Gross Proceeds Tax and Issyk-Kul Contribution are credited in full;

(g) sales tax at generally applicable rates on goods and services purchased in relation to the Kumtor Mine;

(h) value added tax at generally applicable rates on goods and services purchased by KGC and KOC, except for goods and services imported in relation to the Kumtor Mine;

(i) generally applicable fees for licenses, registrations, travel visas and other fees for discrete government services, provided that such fees shall not exceed those in effect on April 24, 2009;

(j) payroll deductions for all employees subject to Kyrgyz Republic income tax and contributions to the Social Fund of the Kyrgyz Republic in respect of employees who are Kyrgyz Republic citizens, in each case at generally applicable rates; and

(k) excise taxes at generally applicable rates except on goods imported in relation to the Kumtor Mine.

In addition, the Restated Investment Agreement provides that the Kumtor Mine is exempt from certain other obligations, including:

(a) all withholding obligations with respect to payments to third parties, but such third parties are not exempt from the relevant taxes to which the withholding would otherwise relate, subject to the benefits provided to such third parties in any applicable international treaties;

(b) paying taxes with respect to intra-group transactions, including for services, dividends, interest and other distributions or transactions; and

(c) customs duties in relation to goods imported into the Kyrgyz Republic.

Effective June 6, 2009, a management fee fixed at $1 per ounce of gold sold, inclusive of any taxes, is payable by Centerra to Kyrgyzaltyn.

In September 2011, KGC signed a protocol with the State Tax Service pursuant to which KGC agreed to voluntarily administer withholding taxes as provided in the Tax Code of the Kyrgyz Republic (as modified by applicable tax treaties) with respect to payments made by KGC to its foreign service providers who are domiciled in countries that do not have a tax treaty with the Kyrgyz Republic. In addition, KGC voluntarily agreed to pay an amount of $0.7 million in 2011, being the amount not withheld since the effective date of the Restated Investment Agreement to September 2011.

KGC has also agreed to make certain recurring social contributions to the Kyrgyz Government for its Regional Fund and its Nature Development Fund. While these are not taxes, they represent regular ongoing obligations of KGC which are conditional upon the continued compliance by the Kyrgyz Government of its obligations under the Kumtor Strategic Agreement. For further information, see “Kumtor Strategic Agreement”.

Kumtor Strategic Agreement and Previous Legal and Regulatory Matters Affected to the Kumtor Mine

This section summarizes the history of certain legal and regulatory matters which impacted the Kumtor Mine and which were resolved or terminated as part of the completion of the Strategic Agreement on Environmental Protection and Investment Promotion dated September 11, 2017 which the Company entered into with the Government of the Kyrgyz Republic and Kyrgyzaltyn (the “Strategic Agreement”), without any admission of liability on the part of KGC and Centerra. These matters began with the formation of the Kyrgyz Parliamentary Commission in 2012, followed by the formation of the State Commission, which ultimately led to the Kyrgyz Parliament requesting that the Kyrgyz Government renegotiate the agreements by which the Kumtor Mine operates. During this period, regulatory and court claims and criminal investigations and charges were commenced against the Company and its employees. All such outstanding, matters were resolved by the Strategic Agreement in 2017 which was completed in August 2019.

Kumtor Strategic Agreement

On August 7, 2019, we announced that all conditions precedent to the completion of the Strategic Agreement were satisfied or waived and that all parties acknowledged that the First Completion Date (as defined in the Kumtor Strategic Agreement) had occurred. Furthermore, we announced on August 26, 2019 that the Second Completion Date was achieved under the Kumtor Strategic Agreement. As a result, all obligations under the Kumtor Strategic Agreement,
including the settlement and releases of liability as well as the obligations of KGC to make contributions to various environmental and social funds of the Kyrgyz Government set out above, became effective.

The Kumtor Strategic Agreement includes, among other things the following:

- Full and final reciprocal releases and resolution of all arbitral and environmental claims, disputes, proceedings and court orders, and releases of the Company and its Kyrgyz Republic subsidiaries from future claims covering the same subject matter as the environmental claims arising from approved mine activities;
- The termination of the Kyrgyz Republic interim court order which, among other things, restricted KGC’s ability to transfer cash to Centerra. On September 4, 2017, the Bishkek Inter-District Court lifted the interim court order and, as a result, KGC transferred cash balances over and above its ordinary working capital requirements to Centerra on September 15, 2017, when the lifting of the interim court order became effective;
- An acknowledgement that there will be no restrictions on the ability of KGC to distribute funds to Centerra in the future;
- All restrictions are lifted on the free movement of KGC’s employees;
- No admission on the part of Centerra or its Kyrgyz Republic subsidiaries of: (i) any environmental wrongdoing, (ii) any non-compliance with Kyrgyz Republic law or the Kumtor Project Agreements (as defined below) or (iii) any pre-existing obligation to make additional environmental or Reclamation Trust Fund payments or environmental remediation efforts;
- The existing 2009 agreements governing the Kumtor Mine (the “Kumtor Project Agreements”) remain in full force and effect, including the tax and fiscal regime thereunder;
- No changes to current or planned operations at the Kumtor Mine are required;
- KGC agreed to make a one-time lump sum payment totaling US$57 million to a new, government-administered Nature Development Fund (US$50 million) following closing (paid on August 28, 2019) and to a new, government-administered Cancer Care Support Fund (US$7 million; paid in 2017) and within 12 months of closing make a further one-time payment of US$3 million to the Cancer Care Support Fund;
- Annual payments of US$2.7 million to the new Nature Development Fund, conditional on the Kyrgyz Government continuing to comply with its obligations under the Kumtor Strategic Agreement;
- KGC has agreed to accelerate its annual payments to Kumtor Mine’s Reclamation Trust Fund in the amount of US$6 million a year until the total amount contributed by KGC reaches the total estimated reclamation cost for the Kumtor Mine (representing the independent assessment of Kumtor Mine’s current reclamation costs) subject to a minimum total reclamation cost of US$69 million (which is broadly in line with KGC’s current estimated reclamation cost for the Kumtor Mine); and
- KGC would consider, together with the Kyrgyz Government, other potential investment opportunities in the Kyrgyz Republic and at the Kumtor Mine.

In connection with the completion of the Strategic Agreement and at the request of the Kyrgyz Government, KGC agreed to certain additional contributions (as further described below) over and above those in the Kumtor Strategic Agreement to strengthen its social license to operate in the Kyrgyz Republic. The additional contributions are as follows:

- a U.S.$5 million lump sum contribution to a new Kyrgyz Republic Social Partnership for Regional Development Fund (the “Regional Fund”) which was paid within five business days of the Second Completion Date (paid on August 28, 2019);
- a U.S.$5 million lump sum contribution to the Regional Fund to be paid within 12 months of the Second Completion Date;
- monthly contributions to the Regional Fund equivalent to 0.4% of KGC’s revenues from the Kumtor Project earned after the Second Completion Date;
- an annual contribution of U.S.$1 million to the Kyrgyz Republic Nature Development Fund; and
- exploration expenditures of at least U.S.$16 million at the Kumtor Project over a two-year period, which was achieved by December 31, 2019.
All such payments and expenditures are conditional upon the Kyrgyz Government continuing to comply with the conditions precedent under the Strategic Agreement.

In March 2020, in view of the urgent need for regional development in the Kyrgyz Republic, KGC further determined that additional contributions to the Regional Fund were appropriate. Accordingly, it made a further $9 million contribution to the Regional Fund and plans to make further contributions of $22 million over the next 30 months.

**Kyrgyz Parliamentary and State Commissions**

**Formation of Parliamentary Commission**

On February 15, 2012, the Kyrgyz Parliament established an interim parliamentary commission (the “Parliamentary Commission”) to inspect and review: (i) Kumtor Mine’s compliance with Kyrgyz Republic operational and environmental laws, as well as community standards, and (ii) state regulation over the Kumtor Mine’s activities.

The Parliamentary Commission issued a report (defined as the “Parliamentary Commission Report”) on June 18, 2012 and made a number of assertions regarding the operation of the Kumtor Mine, including:

- challenging the legal validity of the Kumtor Project Agreements;
- alleging non-compliance with Kyrgyz Republic environmental and other laws, particularly at Kumtor Mine’s tailings facility, the Davidov glacier and the Sarychat-Ertash State Reserve which is in the vicinity of the Kumtor Mine. The Parliamentary Commission alleged that the violations have resulted in substantial monetary damages; and
- alleging inefficient or improper management of Kumtor Mine, particularly with respect to customs practices, tax and Social Fund payments, operational decisions, procurement practices and mill efficiencies (gold recoveries), the latter of which is alleged by the Parliamentary Commission to have resulted in very substantial losses.

The Parliamentary Commission proposed to the Kyrgyz Parliament a form of decree (the “Draft Decree”) which called for the cancellation of the Kumtor Project Agreements and the creation of a new state-owned Kyrgyz Republic entity to assume control over Kumtor Mine. If the Draft Decree had been approved and given full effect by the Kyrgyz Government, it would have, in substance, resulted in the nationalization of the Kumtor Mine.

When the Kyrgyz Parliament met in late June 2012 to consider the Parliamentary Commission Report, it voted against the Draft Decree and instead adopted an alternative resolution (Resolution 2117-V) that took note of the Parliamentary Commission Report and declared the Kumtor Project Agreements to be contrary to the interests of the Kyrgyz Republic. Resolution 2117-V also: (i) called for the formation of a State Commission to assess the environmental, industrial and social damage caused by the Kumtor Mine and to initiate the renegotiation of the Kumtor Project Agreements in order to protect economic and environmental interests; (ii) called for the cancellation of various government decrees and orders, including Kyrgyz Government Decree #168 dated March 25, 2010 which provided land use rights over the surface of the Kumtor Mine concession area; and (iii) recommended that the State Agency for Geology and Mineral Resources (now the State Committee for Industry, Energy and Subsoil Use of the Kyrgyz Republic) cancel certain licenses granted to Kumtor Mine, including the exploration license for the Karasay and Koendy licensed area.

**Formation of the State Commission**

In response to Resolution 2117-V, the Kyrgyz Government established a state commission (the “State Commission”) for the purpose of reviewing the Parliamentary Commission Report as well as inspecting and reviewing Kumtor Mine’s compliance with Kyrgyz Republic operational and environmental laws and community standards. The State Commission was comprised of three working groups with responsibility for environmental and mining matters, legal matters (including a review of all prior and current agreements relating to the Kumtor Mine) and socio-economic matters (including a review of financial, taxation, procurement and employment related issues).

In December 2012, the State Commission issued its final report (the “State Commission Report”), following five months of study and several visits to the Kumtor Mine, and over 120 written requests for information on a wide variety of matters going back to 1993 when the original agreement regarding the Kumtor Mine was executed.

The State Commission Report included many allegations in regard to prior transactions relating to the Kumtor Mine and the mine’s operations and management, including that the Kumtor Mine violated Kyrgyz Republic legislation relating to corporate, environment, and subsoil legislation at various times since project activities began in 1993, and that the Kumtor Project Agreements executed in 2009 were improperly approved and violated the Kyrgyz Republic constitution.
The State Commission Report recommended that the Kyrgyz Government open negotiations of the arrangements under which the Kumtor Mine is governed. The State Commission Report’s recommendations included requiring Kumtor Mine to accept the current tax regime and pay higher environmental charges; changes in the management of Kumtor Mine and Centerra including greater representation by Kyrgyzaltyn on the Board and greater representation of Kyrgyz Republic citizens in management of the Kumtor Mine; and additional charges and fees to be paid by the Kumtor Mine including for land use, and for those items raised by SIETS (as discussed below). The State Commission Report also recommended various actions to be taken by Kyrgyzaltyn, by the Kyrgyz Government (including revisions to Kyrgyz law) and the Kyrgyz Republic General Prosecutor’s Office with respect to investigating the personal liability of parties who were involved in negotiating previous agreements governing the Kumtor Mine for violations of Kyrgyz Republic legislation and for inflicting losses to the Kyrgyz Republic’s interests. The State Commission recommended the establishment of a working group to give effect to the recommendations, in particular the opening of negotiations with Centerra and Kumtor Mine.

We received the final copy of the State Commission Report on January 18, 2013, and responded in writing disputing all of their allegations.

**State Commission Report Received by Parliament**

In connection with its consideration of the State Commission Report, the Kyrgyz Parliament adopted decree #2805-V (Decree 2805-V) on February 21, 2013 regarding the Kumtor Mine. Decree 2805-V recommended that the Kyrgyz Government ensure the continuous operation of the Kumtor Mine, and conduct negotiations with Centerra with a view to revising the Kumtor Project Agreements to return to conditions that existed prior to the restructuring of the project in 2003, but subject to the application of current Kyrgyz Republic legislation, and to enter into new agreements on these terms.

Decree 2805-V provided that if the parties could not agree on mutually acceptable terms within the time period provided, the Kyrgyz Government was instructed by the Parliament to (among other things) take certain actions with respect to the Kumtor Mine, including to:

(i) invalidate the legislation enacted by Parliament in 2009 approving the Kumtor Project Agreements, and to unilaterally terminate the Kumtor Project Agreements;

(ii) invalidate the legislation enacted by Parliament in 2009 amending the Kyrgyz Republic Tax Code (which provides for the tax regime set out in the Kumtor Project Agreements);

(iii) confiscate land plots in connection with the adoption of Kyrgyz Government Decree, on abolition of the Government Decree on allocation of lands to KGC dated March 25, 2010, approved by the Kyrgyz Government Decree dated July 5, 2012. (This March 25, 2010 Decree #168 granted Kumtor Mine surface rights in relation to the Kumtor Mine); and

(iv) authorize SIETS to take measures to have Kumtor Mine pay fines and other charges for violations of environmental, mining and geological and subsoil legislation. (See below “Environmental Claims”.)

**Discussions to Resolve Outstanding Matters**

Following extensive negotiations between Centerra, the Kyrgyz Republic and Kyrgyzaltyn in 2013, we announced on September 9, 2013 that we had entered into a non-binding memorandum of understanding (the “MOU”) with the Kyrgyz Government and Kyrgyzaltyn in connection with a potential restructuring transaction under which Kyrgyzaltyn would receive a 50% interest in a joint venture company that would own the Kumtor Mine in exchange for its equity interest in Centerra and $100 million which would be provided to us by way of an adjustment to joint venture distributions otherwise due to Kyrgyzaltyn. The Kyrgyz Government submitted the MOU to the Kyrgyz Parliament. The Kyrgyz Parliament passed a decree on October 23, 2013 which rejected the MOU and instructed the Kyrgyz Government to continue negotiations with us with a view to, among other things, increasing the Kyrgyz Republic shareholding in the joint venture to no less than 67%.

Following further discussions, we entered into a non-binding heads of agreement on December 24, 2013 which superseded the MOU and was subsequently re-signed on January 18, 2014 after making non-material changes (the “HOA”). The HOA retained most of the material terms of the MOU, including that Kyrgyzaltyn would receive a 50% interest in the joint venture company that would own the Kumtor Mine in exchange for its equity interest in Centerra.

The parties negotiated at length throughout 2014 and 2015 to reach definitive agreements to reflect the material terms in the HOA. Unfortunately, the parties were not able to agree on all outstanding matters and the Kyrgyz Government announced in December 2015 that it was withdrawing from the HOA.
We continued discussions with the Kyrgyz Government from 2016 until a final resolution was agreed upon in the form of the Kumtor Strategic Agreement.

Environmental Claims

Following Decree 2805-V, KGC became subject to various Kyrgyz Republic court proceedings commenced by Kyrgyz Republic state authorities alleging that KGC did not comply with applicable Kyrgyz Republic environmental legislation.

Claims Commenced by SIETS

In December 2012, we received four claims from the Kyrgyz Republic State Inspectorate for Environment and Technical Safety ("SIETS") relating to alleged environmental damages at the Kumtor Mine. The claims are for an aggregate amount of approximately $150 million (at the then exchange rate) and include:

- a claim for approximately $142 million for alleged damages in relation to the placement on waste dumps of waste rock from mining operations (2000 to 2011).
- a claim for approximately $4 million for use of water resources for the period of 2000 to 2011.
- a claim for approximately $0.03 million for unaccounted industrial and household waste.
- a claim for approximately $2.3 million for alleged damages caused to land resources at the time of initial construction of Kumtor Mine.

Despite KGC’s disputing of such claims, in 2016, the Bishkek Inter-District Court in the Kyrgyz Republic issued four decisions in relation to these environmental claims, awarding approximately 7 billion Kyrgyzsoms (approximately $102 million, using an exchange rate of 69 Kg Soms to $1.00) in damages.

These claims were subsequently terminated by the Kyrgyz Republic courts on August 15, 2019 as part of the completion of the Kumtor Strategic Agreement.

Claim by the SAEPF

On February 21, 2013, we announced the receipt of a claim from SAEPF for the amount of approximately $315 million (at then current exchange rates) for alleged damage in relation to waste placed in the TMF, waste rock dumps, and for the generation, management and treatment of other types of wastes. The claim covered the period from 1996 to 2011.

Despite our efforts to draw the court’s attention to the arbitration provisions in the Restated Investment Agreement, the Inter-district Court rejected our appeal to dismiss the claim and, on June 3, 2016 the Interdistrict Court granted an interim order in the claim which prohibited KOC and KGC from taking any actions relating to certain financial transactions including, transferring property or assets, declaring or paying dividends, pledging assets or making loans (previously defined as the “KR Interim Court Order”).

On September 4, 2017, just before the signing of the Strategic Agreement, the Bishkek Inter-District Court terminated this claim made by SAEPF and lifted the KR Interim Court Order. As a result, KGC transferred cash balances over and above its ordinary working capital requirements to Centerra on September 15, 2017, when the lifting of the interim court order became effective.

On the same day, the Bishkek Inter-District Court also terminated a claim made by the Chui-Bishkek-Talas Local Fund of Nature Protection and Forestry Development of SAEPF which sought compensation for alleged environmental pollution in the amount of 40,340,819 Kyrgyzstani soms (approximately $580,000 based on the exchange rate of 69.6105 Kyrgyz soms per US$1.00).

Other Claims and Proceedings in the Kyrgyz Republic

Criminal Investigation into Environmental Matters

KGC was also subject of a criminal investigation by the General Prosecutor’s Office of the Kyrgyz Republic (“GPO”) which concerned the same subject matter as the SIETS claims described above. We understand that this investigation was terminated in connection with the completion of the Kumtor Strategic Agreement.

Land Use Claim

On November 11, 2013, KOC received a claim from the Kyrgyz Republic GPO requesting the Inter-District Court of the Issyk-Kul Province invalidate its land use certificate and seize certain lands within Kumtor Mine’s concession area. We disputed these purported invalidations and believed that our land use rights continue. On August 28, 2017, the Bishkek...
Inter-District Court terminated the proceeding commenced by the GPO in respect of Kumtor Mine’s land use rights over the Kumtor Mine concession area.

The Company received new land use certificates on January 24, 2019.

**Kyrgyz State Tax Orders**

In August 2018, KGC commenced a claim in the Kyrgyz Republic courts (refiled on September 26, 2018) seeking to invalidate orders of the Kyrgyz Republic State Tax Service which reassessed taxes (including sanctions and penalties) owing from KGC for the period from 2016 to 2017 in the amount of 1,377,709,739.44 Kyrgyz Soms (approximately $20 million), primarily in relation to the alleged failure to pay taxes on high altitude premiums paid to employees at the Kumtor Mine. The Kyrgyz Republic court held a hearing in December 2018 and satisfied KGC’s claim to invalidate the orders. This court decision came into effect on January 10, 2019 after the customary appeal period expired.

**2013 KGC Dividend Civil and Criminal Investigation**

On June 3, 2016, the Inter-District Court renewed a claim previously commenced by the GPO seeking to unwind the $200 million dividend paid by KGC to Centerra in December 2013 (the “2013 Dividend”). On September 14, 2017, the Bishkek Inter-District Court determined to leave the claim without review and, accordingly, the claim was terminated.

On March 20, 2018, and as contemplated by the Kumtor Strategic Agreement, we received notification that the GPO terminated a criminal investigation into executives of the Company and KGC relating to the 2013 Dividend.

**Criminal Proceedings Against Unnamed KGC Managers**

On May 30, 2016, a criminal case was opened by the GPO against unnamed KGC managers alleging that such managers engaged in transactions that deprived KGC of its assets or otherwise abused their authority, causing damage to the Kyrgyz Republic. Specifically, the case appeared to be focused on the reasonableness of certain of KGC’s commercial transactions and in particular, the purchase of goods and supplies in the normal course of its business operations and the expenses relating to the relocation of the Kumtor Mine’s camp in 2014 and 2015. In connection with their investigation, the GPO carried out searches of KGC’s offices and seized documents and records. We strongly disputed the allegation that any such commercial transactions or the actions of KGC managers were in any way improper.

On March 20, 2018, and as contemplated by the Kumtor Strategic Agreement, we received notification that the GPO had terminated its criminal investigation against these unnamed KGC managers.

**KGC Employee Movement Restrictions**

In connection with certain of the foregoing criminal investigations, restrictions were imposed on certain KGC managers and employees, which prohibited them from leaving the Kyrgyz Republic. We understand that all such movement restrictions have now been lifted.

**GPO Review of Kumtor Project Agreements**

On June 14, 2016, according to reports in the Kyrgyz Republic, the Kyrgyz Republic President instructed the GPO to investigate the legality of the agreements relating to the Kumtor Mine which were entered into in 2003, 2004 and 2009. The 2009 Restated Investment Agreement governing the Kumtor Mine which was entered into in 2009 superseded entirely the 2003 and 2004 agreements. The 2009 Restated Investment Agreement was negotiated with the Kyrgyz Government, Kyrgyzaltyn JSC and their international advisers, and approved by all relevant Kyrgyz Republic state authorities, including the Kyrgyz Republic Parliament and any disputes under the 2009 Restated Investment Agreement are subject to resolution by international arbitration. The Company understands that this investigation has been closed with respect to Centerra and its Kyrgyz subsidiaries.

**Criminal Charges Regarding 2016 Casualty at Kumtor Mill**

On June 16, 2016, the Investigator of the Jety-Oguz District Department of Interior Affairs initiated criminal proceedings against two KGC managers in relation to the previously disclosed death of a KGC employee due to an industrial accident which occurred in January 2016. On July 11, 2017, the criminal proceedings were dismissed by the Kyrgyz Republic courts but were later sent for new consideration by the courts upon the request of the deceased’s family. On August 17, 2018, the criminal proceedings were terminated by Kyrgyz Republic courts due to a settlement being reached with the deceased family, as permitted under Kyrgyz Republic law.

**International Arbitration Proceedings**

We commenced an arbitration proceeding against the Kyrgyz Republic and Kyrgyzaltyn on July 12, 2016 in relation with the then outstanding disputes relating to the Kumtor Mine and filed a Statement of Claim on February 23, 2017. The
arbitration proceedings were terminated in August 2019 in connection with the completion of the Kumtor Strategic Agreement.

Investigations Relating to the Lysii Waste Rock Dump Failure

As noted above, on December 1, 2019, the Lysii Waste Rock Dump experienced a significant failure which resulted in the loss of the lives of two Kumtor employees. After six weeks of intensive search operations, the Company was not able to recover our missing employees and, with the consent of the families and the relevant Kyrgyz Republic state agencies, including the Ministry of Emergency Services, the decision was made to stop the search effort. A funeral prayer was held at the site attended by family members, relatives and community supporters. The Company has also compensated the families of the two missing employees as required by law.

Following the accident, the Kyrgyz Republic established a state (interdepartmental) commission to investigate the technical causes of the accident as well as a special commission to investigate the relative degrees of fault for the accident. KGC also retained its own experts to identify the causes of the accident and to provide cooperation to the commissions. Following their review, each commission identified a number of causes for the accident but did not find that KGC had violated any laws in the course of its operation. A criminal investigation into the accident is ongoing.

Investigation Relating to the Petrov Lake Fatality

On February 15, 2020, the Kumtor Mine experienced another fatal accident after an operator’s excavator tipped and then slipped down into a waterfilled basin near the edge of Petrov Lake. KGC has commenced an internal investigation and is working closely with Kyrgyz Republic state authorities to determine the cause of the accident.
**Mount Milligan Mine**

**Quick Facts**

Centerra acquired the Mount Milligan Mine in October 2016.

The Mount Milligan Mine has been in commercial production since 2014. To date, it has produced approximately 1 million oz of gold and 306 million lbs. of copper.

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<thead>
<tr>
<th>Location</th>
<th>British Columbia, Canada</th>
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<tbody>
<tr>
<td>Ownership</td>
<td>100%</td>
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<tr>
<td>Business Structure</td>
<td>Our wholly owned subsidiary, Centerra B.C. Holdings Inc., directly owns 100% of Thompson Creek Metals Company Inc., the holder of the rights to the Mount Milligan Mine.</td>
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<tr>
<td>End Product</td>
<td>Copper-gold concentrate</td>
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<td>Mine Type</td>
<td>Open pit</td>
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**Estimated Mineral Reserves**

(as at December 31, 2019)

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<tr>
<td><strong>Gold</strong></td>
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<td>average gold grade – 0.39 g/t</td>
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<td></td>
<td>tonnage – 191,028 k tonnes</td>
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<tr>
<td><strong>Copper</strong></td>
<td>959 M lbs of contained copper (proven and probable)</td>
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<td></td>
<td>average copper grade – 0.23%</td>
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<td>tonnage – 191,028 k tonnes</td>
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**Estimated Mineral Resources**

(as at December 31, 2019)

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<tr>
<td><strong>Gold</strong></td>
<td>1,408 k oz of contained gold (measured and indicated)</td>
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<td>average grade – 0.35g/t</td>
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<td>tonnage – 125,370 k tonnes</td>
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<tr>
<td><strong>Copper</strong></td>
<td>517 M lbs. of contained copper (measured and indicated)</td>
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<tr>
<td></td>
<td>average copper grade – 0.19%</td>
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<td>tonnage – 125,370 k tonnes</td>
</tr>
</tbody>
</table>

Inferred mineral resources have a great amount of uncertainty as to their existence and as to whether they can be mined economically. It cannot be assumed that

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gold</strong></td>
<td>55 k oz contained gold (inferred)</td>
</tr>
<tr>
<td></td>
<td>average grade – 0.46 g/t</td>
</tr>
<tr>
<td></td>
<td>tonnage – 3,736 k tonnes</td>
</tr>
</tbody>
</table>
all or part of the inferred resources will ever be upgraded to a higher category.

**Copper**
- 10 M lbs. of contained copper (inferred)
- average copper grade - 0.13%
- tonnage – 3,736 k tonnes

<table>
<thead>
<tr>
<th>Processing Method</th>
<th>Crushing, grinding, flotation, gravity circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2019 Production</strong></td>
<td>183,107 oz of payable gold production</td>
</tr>
<tr>
<td></td>
<td>71.1 million pounds of payable copper</td>
</tr>
</tbody>
</table>

**Mount Milligan Streaming Arrangement**
The Mount Milligan Mine in Canada is subject to a streaming arrangement whereby Royal Gold is entitled to receive 35% of the gold produced and 18.75% of the copper production. Royal Gold will pay Centerra $435 per ounce of gold delivered and will pay 15% of the spot price per metric tonne of copper delivered.

**Employees**
- 559

**Technical Report**

**Project Description, Location and Access**
The Mount Milligan Mine is a conventional truck-shovel open-pit copper and gold mine and process plant. The Mount Milligan Mine is currently permitted by the Province of British Columbia to operate at an average of 60,000 tpd over a calendar year.

The Mount Milligan Mine is located within the Omenica Mining Division in North Central British Columbia, Canada, approximately 155 km northwest of Prince George (population approximately 79,000).

Mount Milligan Mine includes 109 claims and one mining lease with a combined area of 51,078.3 ha. The mining claims and leases are all held in the name of Thompson Creek Metals Company Inc. The single mining lease expires on September 9, 2029 and requires a lease payment of approximately $102,760, due annually on September 9. Mineral claims are subject to exploration expenditure obligations, or we may choose to pay annual fees to the Province of British Columbia in lieu of exploration expenditures. All mineral claims are in good standing with expiry dates from 2023 to 2024. We expect to renew such mineral claims in the ordinary course of exploration.

A 2% net smelter return royalty is payable to a previous owner of the property, HRS, (successor in interest to Richard Haslinger), which royalty payments commenced in 2016, the third year of commercial operations at the Mount Milligan Mine. The Company has received a notice of civil claims from HRS alleging that since 2016, the Company has incorrectly calculated amounts payable under the production royalty agreement and has therefore underpaid amounts owing to HRS. The Company disputes the claim and believes it has calculated the royalty payments in accordance with the agreement. The Company believes that the potential exposure in relation to this claim, over what the Company has accrued, is not material.

We have also agreed to make certain payments to the McLeod Lake Indian Band and Nak’azdli Whut’en band over the life of the mine. The terms of the agreements under which we make these payments are confidential.

As described herein, we have entered into the Mount Milligan Streaming Arrangement with Royal Gold which provides that 35% of the gold and 18.75% of the copper production at the Mount Milligan Mine will be sold to Royal Gold and that Royal Gold will pay $435 per ounce of gold delivered and will pay 15% of the spot price per metric tonne of copper delivered.

The Mount Milligan Mine is accessible by commercial air carrier to Prince George, British Columbia, then by vehicle from the east via Mackenzie on the Finlay Philip Forest Service Road and the North Philip Forest Service Road, and from the west via Fort St. James on the North Road and Rainbow Forest Service Road. Road travel to the Mount Milligan Mine is...
770 km from Prince Rupert and 253 km from Prince George. The communities of Mackenzie and Fort St. James are within daily commuting distance of the Mount Milligan Mine, and both communities are serviced by rail. The infrastructure at the Mount Milligan Mine includes a process plant, a TSF and reclaim water ponds, an administrative building and change house, a truck shop/warehouse, a permanent operations residence, a first aid station, an emergency vehicle storage, a laboratory and sewage and water treatment facilities. The power supply is provided by B.C. Hydro via a 91 km power line. Concentrate is transported by truck from the mine site to Mackenzie, then transferred onto railcars of the Canadian National Railway to existing port storage facilities of Vancouver Wharves in North Vancouver and loaded as lots into bulk ore carriers. Concentrate is then shipped to customers via ocean transport.

**History**

Limited exploration activity on Mount Milligan Mine was first recorded in 1937. In 1984, prospector Richard Haslinger and BP Resources Canada Limited located claims on the site. In 1986, Lincoln Resources Inc. (“Lincoln”) optioned the claims and in 1987 completed a diamond drilling program that led to the discovery of significant copper-gold mineralization. In the late 1980s, Lincoln reorganized, amalgamated with Continental Gold Corp. (“Continental”) and continued ongoing drilling in a joint-venture with BP Resources.

In 1991, Placer Development Ltd. (which became Placer Dome Inc.) (“Placer”) acquired Lincoln’s interest in the Mount Milligan Mine property, resumed exploration drilling, completed a pre-feasibility study and applied for provincial and federal approvals to develop the project. These approvals expired in 2003.

Barrick Gold Corporation purchased Placer in 2006 and sold its Canadian assets to Goldcorp Inc., which then in turn sold its interest in the Mount Milligan Mine to Atlas Cromwell. Atlas Cromwell then changed its name to Terrane Metals Corp. (“Terrane”) and initiated a comprehensive work program.

In October 2010, Thompson Creek acquired Terrane and the Mount Milligan Mine. On February 18, 2014, the Mount Milligan Mine reached commercial production, which is defined as operation of the mill at 60% of design capacity mill throughput for 30 days.

We acquired the Mount Milligan Mine effective October 20, 2016 through the acquisition of all the issued and outstanding shares of Thompson Creek. The total consideration paid for the acquisition was $1.03 billion. In addition to the Mount Milligan Mine, we also acquired interests in several molybdenum assets held by Thompson Creek. As part of the acquisition, Terrane was amalgamated with Thompson Creek effective October 18, 2016.

**Geological Setting, Mineralization and Deposit Types**

The Mount Milligan Mine deposit is within Quesnel Terrane, part of the Intermontane Belt, a composite of low metamorphic grade magmatic arc segments of mixed oceanic and continental affinities, and oceanic plates, which accreted onto North America in the Early Jurassic Period.

The Mount Milligan Mine property is mostly underlain by Upper Triassic volcanic rocks of the Witch Lake succession. The Witch Lake succession is moderately-to-steeply east-northeast dipping and characterized by augite-phytic volcaniclastic and lesser coherent basaltic andesite to andesite, with subordinate epiclastic beds. In the northwestern part of the Mount Milligan Mine property, volcanic rocks are intruded by Early Jurassic to Cretaceous rocks of the Mount Milligan Mine intrusive complex located about 5 to 9 km north of the Mount Milligan Mine porphyry deposit. The Early Jurassic component of the intrusive complex comprises monzonitic rocks with minor dioritic-monzodioritic and gabbroic-monzogabbroic rocks.

Mineralization at the Mount Milligan Mine deposit consists of two styles, early-stage porphyry gold-copper (Au-Cu) and late-stage high-gold-low-copper (“HGLC”). The early-stage porphyry Au-Cu mineralization comprises mainly chalcopyrite and pyrite, occurs with potassic alteration and early-stage vein types, and is spatially associated with composite monzonite porphyry stocks (especially at their hanging-wall and footwall margins), hydrothermal breccia, and narrow dyke and breccia complexes. Late-stage, structurally controlled pyritic HGLC style mineralization is associated with carbonate-phyllic alteration and intermediate- to late-stage vein types, and is spatially associated with faults, fault breccias and faulted lithological contacts (i.e. faulted monzonite porphyry dyke margins). It crosscuts and overprints the earlier stage porphyry Au-Cu mineralization.

Porphyry style Au-Cu mineralization occurs in the hanging-wall and footwall zones of the MBX, Saddle, Southern Star, and Goldmark stocks. Disseminated and vein/veinlet-hosted mineralization is associated with the composite monzonite stocks, their brecciated margins and variably altered volcanic host rocks. Core zones of auriferous chalcopyrite-pyrite mineralization with magnetite rich potassic alteration transition laterally and vertically to pyrite rich HGLC zones within the inner propylitic (albitic) and carbonate-phyllic alteration shells; the latter appear to be late stage and exhibit strong structural control.
Copper-bearing chalcopyrite is associated with potassic alteration at the contact margin between volcanic and intrusive rocks. It occurs most commonly as fine-grained disseminations and fracture fillings, and less commonly as veinlets and in veinlet selvages. Adjacent to the MBX stock, chalcopyrite may be accompanied by pyrite to form coarse sulphide aggregates. Chalcopyrite-bearing veins contain pyrite and magnetite in a gangue of potassium feldspar, quartz, and calcite.

Pyrite content increases with distance from the MBX and Southern Star stocks and is most abundant in propylitically altered rocks. Pyrite occurs as disseminations, veinlets, large clots, patches, and as replacements of mafic minerals. Gold mineralization in the 66 zone is associated with 10-20% pyrite. Cross-cutting vein relationships indicate several generations of pyrite mineralization.

Gold occurs as grains from 1 to 100 μm in size, as observed in process samples. Grains occur as microfracture fillings and are attached to pyrite, chalcopyrite, or bornite. Gold also forms inclusions within pyrite, chalcopyrite, and magnetite grains. SEM work indicates electrum throughout the deposit with varying gold to silver ratios.

The Mount Milligan Mine deposits are categorized as silica-saturated alkalic Cu-Au porphyry deposits associated with alkaline monzodioritic-to-syenitic igneous rocks and are recognized in only a few mineral provinces worldwide. Porphyry copper ± gold deposits commonly consist of vein stockworks, vein sets, veinlets, and disseminations of pyrite, chalcopyrite ± bornite that occur in large zones of economic bulk-mineable mineralization within porphyritic igneous intrusions, their contact margins, and adjoining host rocks. The mineralization is spatially, temporally, and genetically associated with hydrothermal alteration of the intrusive bodies and host rocks.

Examples of alkalic Cu-Au porphyry deposits in British Columbia include Galore Creek, Mount Polley, Copper Mountain, New Afton, Mount Milligan and Lorraine. British Columbia deposits occur in both the Quesnel and Stikine island arc terranes and range in age from Late Triassic to Early Jurassic. Global examples include Ok Tedi in Papua New Guinea as well as Northparkes and Cadia in Australia.

Exploration and Drilling; Development and Production

Since acquiring Mount Milligan Mine, the Company has focused on compiling all historical geologic and exploration data, building an exploration department and conducting near-field, brownfield and greenfield exploration programs. The program to compile and review historical exploration reports, documents and data yielded 227,000 files and 404 GB of data. Exploration has included ground and airborne geophysics surveys, trenching and diamond core drilling.

Historically, five exploration target zones were identified in the resource area (DWBX, WBX, MBX, 66 and Southern Star); three in the brownfield area within the mine lease (North Slope, Goldmark and South Boundary); and three in the greenfield area outside the mine lease (Heidi, Mitzi and Snell). Exploration since 2017 has continued to test most of these zones and refine understanding of their geological relationships and mineral potential. In addition, new target zones have been developed and continue to be tested.

Current exploration efforts target the two predominant mineralization types – early stage porphyry Au-Cu mineralization and late-stage, structurally controlled HGLC mineralization.

Numerous drilling programs have been conducted since the deposit was first drilled in 1987. Except for early programs, the majority of core drilled has been of NQ size. In total, there have been 1,218 holes drilled at Mount Milligan Mine, recovering over 320 km of core.
Below is a map showing collar locations of drill holes of the various campaigns.

Geotechnical information has been routinely recorded for all diamond drilling programs including core recovery, rock quality, hardness or compressive strength (CS), degree of breakage, degree of weathering or oxidation, fracture and joint frequency, and specific gravity (SG). Core recovery routinely exceeds 90% and averages 96%.

In 2020, Centerra has budgeted approximately $7 million to carry out additional drilling, largely within the current mining claims and leases.

For 2020 Production information, see “2020 Guidance”.

**Sampling, Analysis, and Data Verification**

All Mount Milligan Mine Assay Laboratory procedures are accompanied by appropriate, industry standard instrument calibration and QA/QC (Quality Assurance/Quality Control) measures, including quarterly third-party analysis checks. Ore and acid-base accounting analyses Standard Operating Procedure includes steps to confirm on-site laboratory method accuracy, precision, contamination control, sample tracking, and recordkeeping. The assay laboratory also receives blind duplicate samples from the Ore Control Geologist/Technician which are compared against daily sample analysis. This is managed as part of the Mount Milligan Assay Laboratory Quality Management System.

Most samples analyzed for the Mount Milligan Mine deposits have been collected from NQ-sized core. Cores were either split (early programs) or sawn along the long axis with one-half sampled for assayed and the other half retained in core boxes and the core library.

A formal QA/QC program, including the insertion of standard, blank and duplicate samples for assay, was introduced after 1992. Prior to that date, external check assays were commissioned from independent laboratories.

Slobodan Jankovic, qualified person for the mineral resource estimate, conducted a site visit at Mount Milligan Mine from April 8 to 11, 2019. The site visit included a review of site facilities, logging and sampling procedures, and the lithology and alteration domain controls used in resource estimation. No significant issues were identified with respect to the assay sampling procedures, chain of custody or the geological data collection.

Validation of the mapping co-ordinates, elevations, assay quality control/quality assurance program and the DDH database has been completed by Centerra and predecessor owners of Mount Milligan Mine.
Throughout 2019, additional validations and verifications of the database were conducted during the migration to the acQuire data systems management software. These included:

- Review of the 2007 Allnorth transformation to confirm pre-2007 drill holes originally surveyed in the local mine grid were transformed to NAD83 UTM Zone 10 consistently,
- Verification of downhole survey data from raw data files where available for 2004 to 2019 drill holes,
- Correction of downhole survey data to NAD83 UTM Zone 10 north for 2006 to 2019 (previous compilations recorded downhole survey data to True North and the UTM convergence at Mount Milligan Mine is approximately -0.85°),
- Verification of all copper and gold assay values from the previous database compared to original assay certificates for drill holes from 2004 to 2019,
- Compilation of missing 2004, 2006-2007, and 2011-2016 QA/QC data to the database, and
- Compilation of 2004-2019 laboratory QA/QC data to the database from original assay certificates.

The data reviews found the assay data acceptable and any errors or omissions were minor. Centerra considers the final 2019 database to be robust and verified. The qualified person, Mr. Slobodan Jankovic concluded that the database is adequate for the estimation of Mineral Resources according to CIM Estimation of Mineral Resources and Mineral Reserves best practice guidelines.

**Mineral Processing and Metallurgical Testing**

Mount Milligan Mine is a copper-gold porphyry deposit, consisting of two principal zones, the Main Zone and the Southern Star (SS) Zone. The Main Zone includes four contiguous sub-zones: MBX, WBX, DWBX and 66 (low-copper and high-gold grades, southeast of the MBX sub-zone). These geologic zones are the basis for the metallurgical test work.

The Mount Milligan Mine deposit is being mined using conventional open-pit equipment, with the ore being processed through a gyratory crusher, secondary crushing and a SAG-ball mill-pebble crusher combination together with a rougher and cleaner flotation plant, producing a marketable gold-rich copper concentrate.

Metallurgical investigations conducted by various research laboratories prior to commencement of operations conclusively showed that froth flotation is the optimum process for the recovery of copper and gold; with this processing approach being adopted. These investigations were the basis of the performance models used in previous resource modelling. The previous Mount Milligan technical report with an effective date of December 31, 2016 and a filing date of March 2, 2017 (the “2017 Technical Report”) addressed previous assumptions in the copper and gold recovery models together with identified issues in the plant to produce new performance equations.

Since disclosure of the 2017 Technical Report, further investigations and projects have been undertaken to improve the recovery process and update the accuracy of the copper and gold recovery models. Using these new performance models, the LOM average recoveries are estimated at 80.6% for copper and 61.8% for gold, targeting a concentrate grade with a LOM average of 21.5% copper. Test results indicated that impurity element contents in the concentrate were below the penalty levels normally imposed by most smelters; therefore, no significant penalties are expected.

Further improvements to metallurgical recovery are being assessed including the use of alternative flotation equipment such as Staged Flotation Reactors or Direct Flotation Reactors. An initial assessment for the Mount Milligan Mine flowsheet and ore has shown potential to increase both gold and copper recoveries using this flotation equipment with on-site piloting in progress at the time of writing.
Mineral Resource and Mineral Reserve Estimates

For information on the Mount Milligan Mine mineral reserves and mineral resources, see “Mineral Reserves and Resources” starting on page 23.

Mining Operations

Mineral

The mining operation is a conventional shovel and truck open pit mine feeding a 60,000 t/d (permitted throughput) processing plant. The planned mine life is 9 years with a Proven and Probable Reserve of 191.0 million tonnes at 0.23% copper and 0.39 g/t gold. The pit has been planned as a series of discrete pushbacks and scheduled to maximize the production of ore. Total ore and waste will be mined at an average rate of 40.2 Mt/a in 2020, 46.8 Mt/a in 2021 and 50.8 Mt/a in 2023 through 2027, decreasing to 21.6 Mt/a in 2028 yielding an overall LOM waste:ore strip ratio of 1.24:1.0. The mining sequence has been developed to allow for provision of suitable waste material for annual TSF construction requirements.

Mount Milligan Mine - Water Management

Since late December 2017 to date, the Mount Milligan Mine has experienced a lack of sufficient water resources which have resulted at various times in 2018 and 2019 in a short temporary suspension of processing operations, operating using only one ball-mill, and with reduced throughput.

- On December 27, 2017, we announced that due to a lack of sufficient water resources, mill processing operations at the Mount Milligan Mine in British Columbia, Canada were temporarily suspended. In January 2018, we received an amendment to Mount Milligan Mine's environmental assessment certificate that allowed for a limited withdrawal of water from Philip Lake until October 2018. We restarted operations at partial capacity on February 5, 2018 using only one ball mill to minimize water requirements. We restarted the second ball mill on March 23, 2018 as a result of building up sufficient water resources in our tailings storage facility ("TSF"). The water build-up was attributed to thawing of ice in the TSF and pumping water from groundwater sources, tower drains and nearby Philip Lake.

- On September 14, 2018, we announced that Mount Milligan Mine received approval to access certain short-term water sources, namely to (i) pump from groundwater wells within Mount Milligan Mine's TSF (as well as from a single groundwater well outside of the TSF for the entire LOM) and (ii) pump up to 15% of the base flow from Philip Lake until November 15, 2018. In November 2018, we were granted a further approval to pump water from Philip Lake until April 30, 2019.

- Throughout the winter of 2018/2019, the Company slowed its production at Mount Milligan Mine to conserve water.

- On February 27, 2019 we announced that the British Columbia Environmental Assessment Office has approved an amendment to Mount Milligan Mine’s environmental assessment certificate to permit access to additional sources of surface water and groundwater. Subject to the receipt of the relevant water licenses, the Company will be permitted to obtain water for use in Mount Milligan Mine’s milling operation from Philip Lake 1, Rainbow Creek and Meadows Creek until November 30, 2021 at rates that are protective of the environment. The Company will also be permitted to access water from groundwater sources within a radius of six km of the Mount Milligan Mine for the life of the mine. During the fourth quarter of 2019, Mount Milligan Mine continued to access surface water from Philip Lake 1 and Rainbow Creek until October when surface water flows diminished to levels below the levels allowed under the permits.

- During the summer of 2019, surface water flows were augmented by higher than normal rainfall in the second half of the year. In addition, Mount Milligan Mine has developed a wellfield in the Lower Rainbow Valley that began pumping in late December. The permit for this wellfield allows pumping over the next four years and the Company expects to extend the length of the permits provided there is appropriate monitoring of the impact on the aquifer and local surface water courses. The Company does not expect a curtailment in production in 2020 as there is expected to be sufficient water in the tailing storage facility to run at full capacity throughout the year.
• The Company continues to work with relevant stakeholders and Indigenous groups to evaluate water sources that have been identified in a multiple accounts analysis to supply Mount Milligan Mine’s process plant for the life-of-mine while meeting environmental and other parameters. The application for a long-term water solution will be the subject of ongoing discussions with regulators, potentially affected Indigenous groups, local communities and other interested parties.

Processing and Recovery Operations

The LOM average process plant feed grade of 0.23% Cu is delivered at an average daily permitted rate of 60,000 tonnes to yield a marketable 21.5% Cu concentrate. Process plant ore feed quality is maintained to honour metallurgical constraints such as ORE/HGLC ratio, Py:Cpy ratio and mercury (Hg) content. Average recovery to concentrate projected to be achieved during the LOM period is 80.6% for copper and 61.8% for gold.

The Mount Milligan Mine process plant is designed to process ore at a nominal rate of 60,000 t/d, producing a marketable concentrate containing copper, gold, and silver. Key process equipment consists of:

- Primary crushing plant with a 1.525 m x 2.794 m gyratory crusher;
- Secondary crushing plant with two cone crushers prior to the grinding circuit, each powered by one 1,000 kW motor;
- SAG/ball mill/crusher grinding circuit comprised of one SAG mill, two ball mills and two cone crushers;
- A flotation circuit comprised of a total of 19 rougher, scavenger and cleaner cells; and
- Regrinding and gravity concentration circuits comprised of one tower mill, two IsaMills™ and one centrifugal gold concentrator.

Infrastructure, Permitting and Compliance Activities

The infrastructure at Mount Milligan Mine includes a process plant, a TSF and reclaim water ponds, an administrative building and change house, a truck shop/warehouse, a permanent operations residence, a first aid station, an emergency vehicle storage, a laboratory, and sewage and water treatment facilities. The power supply is provided by B.C. Hydro via a 91 km hydroelectric power line. Concentrate is transported by truck from the Project site to Mackenzie, transferred onto railcars of the Canadian National Railway to existing port storage facilities of Vancouver Wharves in North Vancouver and loaded as lots into bulk ore carriers. Concentrate is then shipped to customers via ocean transport.

Tailings Storage Facility

The tailings storage facility ("TSF") at the Mount Milligan Mine is designed to store tailings solids and potentially acid generating (PAG) and oxide/weathered waste rock materials in designated areas. The TSF embankment is constructed as a centreline dam using open pit overburden and non-acid generating (NAG) waste rock materials. Construction of each of the embankment stages is scheduled to correspond with material availability from the Open Pit and the projected rate of rise. There will be sufficient volume of waste material produced over the LOM to raise the tailings dam to the required final elevation of 1,101m.

From the process plant, two tailing streams — the rougher/scavenger tailings and the first cleaner/scavenger tailings — are deposited and stored in separate tailing storage areas within the TSF. The rougher-scavenger tailings contain mostly non-sulphide gangue minerals, while the cleaner scavenger tailings contain most of the sulphide gangue minerals. The latter is kept in a lined pond and submerged to prevent acid generation from the oxidation of the sulphide minerals.

The main TSF embankment is constructed in stages using annual raises throughout the LOM, from low permeability glacial till, overburden and waste rock materials from stripping operations at the open pit and borrow areas within and near the TSF. With the use of overburden and NAG waste rock for downstream TSF embankment construction this eliminates the need for conventional waste rock dumps. Delivery of PAG and oxide/weathered waste rock to the interior of the TSF and Main Zone pit, once depleted, ensures secure underwater disposal.

Tailings from the mill are currently being delivered by gravity to the TSF. Each delivery pipeline has been sized to carry up to 100% of the design scavenger tailing production from the circuit. One of the three delivery pipelines is required for use at all times while allowing for maintenance work to be completed on the other two pipelines. Discharge into the TSF is from valve controlled off-takes along the pipeline.
Environmental Conditions

Environmental programs and initiatives are essential to mine success. Mount Milligan Mine’s environmental permit requirements are implemented in accordance with conditions of the permits and other regulatory approvals. The Mount Milligan Mine was specifically designed as a non-discharging mine with a limited spatial footprint and environmental impacts generally occur within that footprint. Adjustments have been made to the mine boundary through Mines Act amendments to access freshwater sources for mill operations.

The Mount Milligan Mine was reviewed under the British Columbia Environmental Assessment Act and initially assessed by the Canadian Environmental Assessment Act. The Canadian Environmental Assessment Act determined that the project would not require formal federal review. An Environmental Assessment Application was filed in July 2008 (the “Application”). Provincial and federal agencies, Indigenous groups and stakeholders participated in a harmonized review of the Application. The provincial Environmental Assessment Certificate was issued in March 2009 and the federal Environmental Assessment Decision Statement was issued in December 2009. The provincial Environmental Assessment Report and the federal Comprehensive Study Report concluded that, considering the required mitigation measures, the Mount Milligan Mine is not likely to cause significant adverse environmental effects. The provincial Environmental Assessment Certificate has been amended from time to time, most recently in February 2019 to permit obtaining water for use in the Mount Milligan Mine milling operations from Philip Lake 1, Rainbow Creek and Meadows Creek until November 30, 2021 at rates that are protective of the environment.

Pursuant to the EAC, we have prepared and implemented an Environmental, Health and Safety Management System (“EHSMS”) designed to ensure that we address Mount Milligan Mine’s environmental related legal requirements. The EHSMS is aligned with ISO 14001. The Mount Milligan Mine EHSMS covers topics relating to, among other things, document and operational controls, incident reporting and adaptive management. In compliance with the Mount Milligan Mine EHSMS, environmental and other management plans are updated as necessary and are submitted to applicable regulatory authorities for review and/or approval as part of the adaptive management process.

We have implemented Fish Habitat Compensation Plans which are authorized under the Fisheries Act and the Metal Mining Effluent Regulations.

All necessary permitting requirements to operate the Mount Milligan Mine have been applied for and approved by the applicable regulatory agencies. Some are temporary in nature (for example the temporary amendment to the EAC to allow for limited withdrawal from Philip Lake), whereas others are for the duration of the mine life. For those permits which are temporary, we expect from time to time to reapply for extensions or permanent amendments as required. There are no assurances that such extensions and/or amendments will be obtained. See “Risk Factors”.

The Mount Milligan Mine current permits include an operating permit issued under the British Columbia Mines Act by the Ministry of Energy and Mines; an Effluent Permit, Air Permit and Refuse Permit, all issued by the Ministry of Environment (“MOE”) under the British Columbia Environmental Management Act; several water licences and various Special Use Permits and Road Use Permits issued by the British Columbia Ministry of Forest Lands and Natural Resource Operations.

The Mount Milligan Mine includes a comprehensive water management plan for construction activities and operational phases. The site is designed, operated and managed to prevent surface water discharge to enter the receiving environment during mining operations. Water management is a significant part of the Reclamation Plan for the Mount Milligan Mine. The Reclamation Plan employs proven practices and is not dependent on long-term active water treatment. Under the Reclamation Plan, all mine components will be decommissioned and reclaimed in accordance with best achievable technology, and industry practices, in compliance with federal and provincial regulations.

Environmental monitoring has not identified any significant water quality issues outside of the footprint of the mine. There are significant landscape activities in the vicinity of the mine operated by other industries that may influence metals in the water column, benthic macroinvertebrates and perhaps fish that must be further monitored as part of cumulative impacts studies.

Emergency Response Plan and Handling of Hazardous Materials

The Mount Milligan Mine has an Emergency Response Plan (the “Mount Milligan ERP”) and hazardous material transportation procedures. We conduct quarterly mock exercises to test different aspects of the Mount Milligan ERP, including response time, effective communications and the skills of the emergency response team and we have updated the Mount Milligan ERP to ensure notification protocols remain valid and improvements from the mock exercises are incorporated in the plan.
Decommissioning and Reclamation

The Mount Milligan Mine submitted a five-year revision to its Reclamation Plan in 2019.

The five-year Reclamation Plan for the site outlines the closure goals and activities for the site and minimizes and mitigates long-term environmental impacts resulting from construction and operation of the facility via sound science and contingency planning. An adaptive management process is utilized whereby new knowledge and technology is incorporated into successive management and reclamation plans that consider operational plan updates. This adaptive management approach will aid in negating or minimizing activities such as post-closure water treatment.

Social and Community Factors

We endeavor to work in a responsible way to meet or exceed expectations of potentially impacted indigenous groups, and stakeholders. See “Responsible Mining – Our Approach” above.

Indigenous Groups

Maintaining productive relationships with Indigenous groups and ensuring project benefits are shared in accordance with our formal agreements is a priority for all Centerra’s projects and operations in British Columbia. See “Responsible Mining – Our Approach” above.

Capital and Production Costs

For Capital and Operating Costs, see “2020 Guidance”.

**Quick Facts**

The Öksüt Mine is situated in Turkey approximately 295 km southeast of Ankara and 48 km south of Kayseri, the provincial capital.

We own 100% of the Öksüt Mine.

Construction activities commenced at Öksüt Mine in April 2018 and as of December 31, 2019, construction was at 89% complete, sufficient to allow operational start-up of all required facilities. The Öksüt Mine achieved first gold pour on January 31, 2020.

<table>
<thead>
<tr>
<th>Location</th>
<th>Turkey</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ownership</strong></td>
<td>100%</td>
</tr>
<tr>
<td><strong>Business structure</strong></td>
<td>Our wholly owned subsidiary (indirectly held), Öksüt Madencilik Sanayi ve Ticaret Anonim Sirketi (“OMAS”), is the holder of the rights to mining and exploration for the Öksüt Mine.</td>
</tr>
<tr>
<td><strong>Estimated Mineral Reserves</strong> (as at December 31, 2019)</td>
<td>1,274 koz of contained gold (proven and probable) average grade – 1.35 g/t tonnage – 29,362 ktonnes</td>
</tr>
<tr>
<td><strong>Estimated Mineral Resources</strong> (as at December 31, 2019)</td>
<td>212 koz of contained gold (measured and indicated) average grade – 0.64 g/t tonnage – 10,370 ktonnes</td>
</tr>
<tr>
<td><strong>Inferred mineral resources</strong></td>
<td>15 koz of contained gold (inferred) average grade – 0.77 g/t tonnage – 615 ktonnes</td>
</tr>
<tr>
<td><strong>Employees</strong></td>
<td>220</td>
</tr>
</tbody>
</table>
Technical Report


Property Description, Location and Access

Location

The Öksüt Mine is located in south-central Turkey, 295 km to the southeast of the capital city of Ankara and 48 km directly south of the city of Kayseri which has a population of 1.1 million. The nearest administrative centre is at Develi (population 64,000) located approximately 10 km north of the Project. Ankara and Kayseri have international airports and are serviced by international and domestic airlines. The Project’s co-ordinates are 715000-722100 Easting and 4236500-4249300 Northing (UTM ED 50 zone 36).

The Öksüt Mine is located in the Develi Mountains on a north-south trending topographic high. The topographic relief comprises steep-sided V-shaped valleys, and locally, cliffs tens of metres high, capped by flat-lying mesas and plateaus. The Project site is located at an elevation of approximately 1,800 m. The valleys are extensively farmed, with the local population living in a number of small villages including the villages of Öksüt and Zile.

Mining Licenses

Mining rights and minerals are exclusively owned by the state. The state delegates rights to explore and operate to Turkish individuals or legal entities through set period licenses in return for royalty payments. Mining licensing is regulated by the General Directorate of Mining Affairs, a unit of the Ministry of Energy and Natural Resources. Other institutions of importance are central government ministries, the provincial administration, and local government institutions.

Due to changes in Turkish mineral laws, which now permit the issuance of mining licenses for areas greater than 2000 hectares, we obtained in 2017 a new operation license number 85712 which unifies the previous two contiguous operation licenses (numbers IR 82468 and 82469). The unified license has a total area of 3,995.81 ha. According to the Turkish Mining Law, OMAS has the right to explore and develop any mineral resources contained within the operation license, provided fees and taxes are paid in order to keep the license in good standing. The operations license was issued on May 1, 2017 and is currently set to expire on January 16, 2023. We will submit applications to renew the operation licenses in the normal course and in accordance with the time frames permitted under local laws.

While OMAS has the right to explore and develop within the area covered by the operation licenses, it requires various permits for the development of the project. In November 2015, we received approval of the environmental impact assessment report for the Öksüt Mine. In 2016, we received various other permits necessary to begin development, including the forestry usage permit on July 14, 2016, the operation permit for the forestry area on August 26, 2016, and the pastureland permit on January 11, 2018.

For information on royalties payable in respect of the Öksüt Mine, see “Taxes and Royalties” below.

Construction Update

As at December 31, 2019 the Öksüt Mine construction is approximately 89% complete, sufficient to allow operational start-up of all required facilities.

The Company achieved first gold pour from the Öksüt Mine on January 31, 2020. Construction and commissioning at the Öksüt Mine are continuing and commercial production is expected to be declared in mid-2020.

Mineralization

The Öksüt Mine is a high-sulphidation epithermal gold deposit within the Central Anatolian Volcanic Province, part of the Tethyan Metallogenic Belt. The belt extends from southeastern Europe across Turkey, the Caucasus, and on into Pakistan and contains a number of important gold and porphyry copper deposits. Magmatic activity and related ore forming processes are the result of the closure of the Tethyan Ocean in response to the collision between the north-moving Arabian Plate with the Eurasian Plate that began in the late Cretaceous period and continues today.

The Öksüt Mine gold mineralization is hosted within the Develidağ Volcanic Complex, one of the numerous stratovolcanoes situated along the Central Anatolian Fault Zone. The volcanic complex is composed of Miocene basaltic-andesitic volcanic domes, pyroclastic rocks, and lava flows. Flow-banded Pliocene andesite overlies these sequences and the Öksüt Mine mineralization to the north and east.
There are several gold occurrences in the Öksüt Mine area, the most important of which is the Keltepe Deposit. The distribution of the alteration assemblages and the gold grades at the Keltepe Deposit are strongly zoned, with a central massive silica breccia having the highest gold grade. This core is surrounded by quartz-alunite altered volcanic rocks, and as the alteration intensity diminishes outwardly, the gold grade decreases.

The Keltepe Deposit has been oxidized to depth, up to 400 m below the surface. The original copper content of the deposit has been completely leached out of the current resources, however, zones of oxide copper enrichment are found deeper within the deposit, below the planned open pit. An irregular zone of supergene enrichment exists below the oxide zone, with some high-grade sulphide copper intersections. It is surmised that the oxidation of the deposit has liberated the gold allowing heap leaching at a relatively coarse crush size.

The nearby Güneytepe Deposit is significantly smaller and does not show the more straightforward zonation and continuity of alteration and gold grades as observed on the Keltepe Deposit. Silicification is intense, however, the host rocks are much less porous, and, as a result, oxidation is restricted to the upper 50 m to 75 m of this deposit.

**Keltepe Deposit**

The Keltepe Deposit is elongated NNW-SSE and is approximately 600 m long and 350 m wide with a minimum known vertical extent of 450 m. Two principal rock types are present: a texturally diverse variety of polymictic breccias and a texturally uniform porphyritic andesite.

The Keltepe Deposit is strongly oxidized to a maximum known depth of up to 400 m below surface. This unusually deep oxidation is attributed to the porous and permeable nature of the siliceous and quartz-alunite altered breccias and to the presence of a deep groundwater table controlled by the NNW-SSE and NE-SW trending fault zones that drain outwards from the topographic high beneath which the Keltepe Deposit is located.

Oxidation is not uniformly complete throughout the deposit, with patches of less oxidized or unoxidized rock enclosed by fully oxidized rocks.

Gold mineralization is believed to occur as finely disseminated particles as it was not identified during scanning electron microscope analysis. This has been confirmed by a gold deportment study that shows that the major gold mineral identified at Keltepe is native gold with an average fineness of 6.9 μm. This study also indicates that the host minerals for the gold in the sample studied are mainly quartz and other silicates and iron oxide, with minor (2% to 10%) rutile-silicate complexes and trace associations with pyrite.

**Güneytepe Deposit**

The Güneytepe Deposit is located approximately 600 m to the south-southeast of the Keltepe Deposit. Gold mineralization primarily occurs along NW-SE and NE-SW trending ledges of two compositions: (1) massive to vuggy residual quartz with associated silicification, and (2) quartz-alunite plus quartz-kaolinite alteration. The location of the ledges is controlled by the intersection of NW-SE and NE-SW trending structures.

As observed at the Keltepe Deposit, gold mineralization at the Güneytepe Deposit is also considered to be controlled by NW-SE and NE-SW trending faults. The deposit is bounded to the north and south by two NE-SW trending fault zones, which confine the gold mineralization into a NE-SW trending corridor.

Oxidation in the ledges rarely exceeds 150 m in depth and averages approximately 50 m to 75 m. Oxidation appears to be deeper in the massive to vuggy quartz and quartz-alunite zones as compared to those composed mainly of quartz-kaolinite.

Gold mineralization at Güneytepe is more variable than at Keltepe in both grade and lateral/vertical distribution. Higher sulphur contents are also recorded in the oxide zone due to sulphides, mostly pyrite, being encapsulated within massive silica and also in patchy silica altered rocks.

**Öksüt Mine Mineral Reserves and Mineral Resource Estimates**

For information on the Öksüt Mine mineral reserves and mineral resources, see "Mineral Reserves and Resources" starting on page 23.

**Metallurgical Test Work**

Metallurgical testing has focused on supporting the development of the Öksüt Mine as a heap leach operation. Testing to date has focused on gold recovery at coarse particle sizes. Metallurgical testing was initiated in 2012 using samples from existing exploration diamond drill holes. A second program, completed in 2012, utilized samples from a single large diameter hole to provide the bulk of the sample for this program. The second program included the first column leach tests. In 2013, four large diameter drill holes were drilled (three in the Keltepe Deposit and one in the Güneytepe
Deposit) to provide samples for two large scale column leach test programs. A mineralogy program was also completed on the samples from this program. In 2014, a further five large diameter drill holes (one in the Güneytepe Deposit and four in the Keltepe Deposit) were completed to provide samples for additional large-scale column leach tests and further mineralogical analysis. Additional series of column leach tests were completed in 2014, 2018 and 2019. The column leach tests were performed for each deposit and also for each main ore alteration type.

The results from all programs show that samples from the Öksüt Mine are amenable to heap leach processing. Leach rates are relatively fast with comparatively high final recoveries. Size by size analysis of the column leach test feed and tails samples shows gold evenly distributed among the size classes, roughly following the mass splits.

Since the Keltepe Deposit contains approximately 90% of the contained gold for the Öksüt Mine, the leach characteristics for the Keltepe Deposit will predominate. Güneytepe Deposit leach characteristics are expected to be as good as or better than Keltepe Deposit and are not anticipated to present any issues based on column leach testing to-date.

Since operations began in late 2019/early 2020, we have observed finer particle sizes than the coarse particle sizes originally expected with ongoing occurrence of clay in the ore. We are reviewing the situation and the impact (if any) on recovery and/or recovery rates.

**Mining Operations**

**Mining**

The Öksüt Mine is a conventional truck and excavator open pit mine. Material is drilled and blasted, before being loaded and hauled to the waste dump, crusher, or the various ore stockpiles depending on the most profitable way to process the material. At the Öksüt Mine, two pits are mined simultaneously, the main Keltepe pit (mining started August 16, 2019) and the small satellite Güneytepe pit (mining started September 3, 2019). A total of approximately 29.4 Mt of ore at a grade of 1.35 g/t Au, containing a total of approximately 1.3 million ounces of gold, is planned to be mined and stacked over a mine life of eight years from the two open pits. We are using a mining contractor to do all mining using small excavators and 36 tonne trucks. The use of this equipment among mining contractors is common in Turkey. The mining contractor will provide and maintain all equipment, and will perform drill, blast, load, haul, and road and dump maintenance on a unit cost basis. Centerra, through its wholly owned Turkish subsidiary, OMAS will provide oversight of the mining operations, grade control, survey control, mine planning, and other required technical services.

The Keltepe pit is being developed in three cutbacks to smooth stripping requirements and mine higher grade material earlier in the mine life. The smaller Güneytepe pit will be developed in two cutbacks. Lower grade material will be stockpiled throughout the project for processing at the end of the mine life.

**Processing**

The flowsheet for the Öksüt Mine is based on an 11,000 tpd heap leach stacking operation. It includes primary crushing, screening and secondary crushing, heap stacking and cyanide leaching, carbon adsorption, carbon stripping and regeneration, electrowinning and refining.

Run-of-mine ore is delivered by 36 tonne haul trucks to the primary crusher. The ore is dumped on the stationary grizzly installed over the 80 tonne truck dump hopper. Oversize rocks are handled by a rock breaker. The ore is withdrawn from the dump hopper via a 2.0 m wide x 4.5 m long grizzly feeder. The grizzly oversize feeds the 1.5 m x 2.0 m jaw crusher that reduces the rock size to minus 150 mm prior to being conveyed by a 1.4 m wide x 95.5 m long belt conveyor to the secondary crushing circuit, along with the grizzly feeder undersize. A self-cleaning belt magnet has been installed over the conveyor belt feeding the secondary crusher building. A metal detector installed after the belt magnet identifies any remaining piece of metal and the conveyor can be stopped to allow manual removal by an operator.

The product from the primary crushing circuit feeds a 2.4 m wide x 6.1 m long double-deck screen. The screen oversize will feed a 600 kW cone crusher while the screen undersize reports with the cone crusher product and is transported by a 1.1 m wide x 50.7 m long belt conveyor to a radial stacker after quicklime has been added to the crushing circuit product. A 10,000 t capacity stockpile is able to be formed by the 1.1 m wide x 39 m long stacker installation.

In 2020, mobile crushers will be operated until primary crusher will be in full operation. Because of the winter conditions, it’s expected that the mobile crushers will produce 60% of crushed ore until Q3. As of 2021, primary crusher will be full capacity in place.

The crushed ore is trucked from the crushing facility to the heap leach pad. The leach pad is being developed in three phases and is designed to accommodate up to 40 Mt crushed ore.
The heap is irrigated with a diluted cyanide solution recirculated from the ADR plant, via a network of piping covering the surface area under leach. The barren leach solution is pumped from the barren tank at the ADR plant to the area under heap leach. The cyanide concentration is adjusted and the pH is controlled so that HCN gas formation is inhibited. The solution is filtered to remove carbon fines prior to distribution over the area under heap leach to minimize emitter plugging. It is pumped by means of two centrifugal pumps installed in series. The first pump covers operation for the first three years of operation, which is the end of Phase 1, while the second pump will be required from year four.

The irrigation distribution piping consists of a 300 mm diameter main header made of carbon steel from the barren pumps discharge to the heap perimeter followed by high-density polyethylene (“HDPE”) ending at the ore panels to be irrigated. Drip emitters are used to provide irrigation. A typical panel piping arrangement includes a 300 mm diameter HDPE header starting from the main header and running for 190 m along the 250 m side of the panel. Four lateral pipes spaced at every 62.5 m branch from the header. Each lateral pipe includes a 150 mm butterfly valve, a pressure gauge, and 75 m of a 150 mm diameter HDPE pipe followed by 75 m of a 100 mm diameter HDPE pipe. Emitter lines branch at every 500 mm on the pipes and emitters are spaced at every 762 mm on the emitter lines.

The pregnant leach solution flows by gravity through a network of collection pipes at the base of the heap to the pregnant leach solution pond prior to being pumped to the ADR plant for precious metals recovery.

**Production Estimates**

For 2020 production information for the Öksüt Mine, see “2020 Guidance”.

**Taxes and Royalties**

**Taxes**

The corporate income tax rate in Turkey is 22%. However, Investment EIA Incentive Certificates are available to provide reduced corporate tax rates for profits derived from investments made in Turkey to promote economic development. In February 2018 (amended in October 2018), we obtained an Investment Incentive Certificate for the Öksüt Mine, which makes the project eligible for various benefits, including a further reduction of corporate income tax rate (by way of income tax credits), VAT exemptions, and customs duty exemptions.

**Royalties**

The Öksüt Mine’s operations are subject to a Turkish Government State royalty, which is a sliding scale royalty, applicable to gold and other metals. Turkish Mining Law provides a reduction of 40% of the royalty amount payable for gold processed at refining facilities within Turkey, which will be the case for the Öksüt Mine.

The Turkish Government State royalty is dependent on the price of gold, as follows:

<table>
<thead>
<tr>
<th>Gold price ($/oz)</th>
<th>Royalty</th>
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<tbody>
<tr>
<td>&lt;800</td>
<td>1%</td>
</tr>
<tr>
<td>801 – 900</td>
<td>2%</td>
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<tr>
<td>901 – 1,000</td>
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<tr>
<td>1,001 – 1,100</td>
<td>4%</td>
</tr>
<tr>
<td>1,100 – 1,200</td>
<td>5%</td>
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<tr>
<td>1,201 – 1,300</td>
<td>6%</td>
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<td>1,301 – 1,400</td>
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<td>1,501 – 1,600</td>
<td>9%</td>
</tr>
<tr>
<td>1,601 – 1,700</td>
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<td>1,701 – 1,800</td>
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</tr>
<tr>
<td>1,801 – 1,900</td>
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<tr>
<td>2,001 – 2,100</td>
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</tr>
<tr>
<td>&gt;2,101</td>
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</table>

**Environmental Matters**

During 2016, OMAS completed an Environmental and Social Impact Assessment (“ESIA”) study which is compliant with EBRD Performance Requirements and the Equator Principles. The ESIA also incorporates information developed by OMAS through the Turkish environmental impact assessment (“EIA”). Since 2016, OMAS also completed and/or updated a number of additional environmental and social studies including biodiversity, socioeconomics, land use and livelihoods, ground water and geochemical modelling and cultural heritage/archeology.
The ESIA, management plans and non-technical summary were subsequently disclosed by OMAS in April 2016. OMAS held disclosure meetings open to all stakeholders in the Develi district and villages around the project site.

Upon completion of the ESIA, OMAS also commenced additional biodiversity studies, as part of a Biodiversity Action Plan, with international and local experts. Key biodiversity activities to date included an ornithological survey; flora and habitat surveys; construction of a plant nursery; critical species salvaging and seed collection; definition of conservation areas within the mine site; and delivery of the collected seeds to a designated seed bank. OMAS has continued to implement its critical Biodiversity Action Plan requirements in parallel with planned construction activities throughout 2019. OMAS has also implemented an environmental and social management system ("ESMP") and prepared health, safety, environmental and social management plans and procedures based on Turkish legislation, the EIA, the ESIA and Centerra standards and commitments. The ESMP and the related plans and procedures align with EBRD and IFC (Equator Principles) environmental and sustainability performance standards.

Decommissioning and Reclamation

Mine closure and rehabilitation in Turkey is regulated through the Turkish Regulation on Reclamation of Mine Sites. The regulation requires preparation of a mine closure report as part of the EIA permit. The first iteration of the Öksüt Mine conceptual closure plan will be prepared in the first year of full operation using a systematic approach to accurately estimate the LOM and asset retirement obligation closure costs such as the Standardized Reclamation Cost Estimator.

Exploration Activities

The Öksüt Mine includes several other exploration targets in addition to the Keltepe and Güneytepe Deposits. All of these (Keltepe NW, Yelibelen, Büyüktepe, Boztepe, Boztepe W, Keltepe E, and Tombak) have received exploratory work since 2008. Except for Keltepe E (waste rock dump area) where condemnation drilling was done during the feasibility study, exploring mineralization potentials in other prospects have been continuing. Drilling programs to date expanded resources at both Keltepe and Güneytepe over the years. Especially, in the last couple of years, more drilling has been done to target oxide gold potential around the known deposits. Keltepe North Prospect was defined and named after the 2019 drilling program discovered another oxide gold potential closer to the surface. The future drilling program will focus on developing Keltepe North and testing other prospects including Keltepe NW, Yelibelen, Büyüktepe and Boztepe for mainly oxide gold.
### 3.2 Other Properties

#### Kemess Project

**Quick Facts**

Centerra acquired the Kemess Project effective January 8, 2018, with the acquisition of AuRico Metals Inc.

The Kemess Project is at an advanced stage – it has an approved Environmental Assessment certificate, all permits required to commence construction and a completed NI 43-101 Feasibility Study.

AuRico entered into an impact benefits agreement on May 17, 2017 with the Takla Lake First Nation, Tsay Keh Dene First Nations and the Kwadacha First Nation.

<table>
<thead>
<tr>
<th>Location</th>
<th>British Columbia, Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership</td>
<td>100%</td>
</tr>
<tr>
<td>Business Structure</td>
<td>Our wholly owned subsidiary (directly held), AuRico is the holder of the rights to the Kemess Project.</td>
</tr>
<tr>
<td>Mine Type</td>
<td>Underground</td>
</tr>
</tbody>
</table>

**Estimated Mineral Reserves** (as at December 31, 2019)  
See “Kemess Silver Stream Arrangement” below.

| Kemess Underground | Tonnage - 107,381 ktonnes (probable)  
1,868 k oz contained gold (probable)  
Average gold grade – 0.54 g/t  
630 M lbs contained copper (probable)  
Average copper grade – 0.27%  
6,878 k oz contained silver (probable)  
Average silver grade – 1.99 g/t |

**Estimated Mineral Resources** (as at December 31, 2019)  
See “Kemess Silver Stream Arrangement” below.

Mineral resources are in addition to reserves. Mineral resources do not have demonstrated economic viability.

Mineral resource estimates for the Kemess East deposit are based on a preliminary economic assessment completed in May 2017 (the “PEA”). Readers are cautioned that the PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them

| Kemess Underground | Tonnage – 173,719 ktonnes (indicated)  
1,737 koz of contained gold (indicated)  
Average gold grade – 0.31 g/t  
697 Milbs contained copper (indicated)  
Average copper grade – 0.18%  
8,632 koz of contained silver (indicated)  
Average silver grade – 1.55g/t |

| Kemess East | Tonnage – 177,500 ktonnes  
2,305 koz contained gold (indicated)  
Average gold grade – 0.40 g/t  
1,410 M lb. contained copper (indicated)  
Average copper grade – 0.36% |
to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

Inferred mineral resources have a great amount of uncertainty as to their existence and as to whether they can be mined economically. It cannot be assumed that all or part of the inferred resources will ever be upgraded to a higher category.

11,240 koz contained silver (indicated)
Average silver grade – 1.97 g/t

Kemess Underground
Tonnage – 47,700 ktonnes
529 koz. contained gold (inferred)
average gold grade – 0.34 g/t
210 M lbs contained copper (inferred)
average copper grade – 0.20%
2,530 koz contained silver
average silver grade – 1.65 g/t

Kemess East
Tonnage – 29,300 ktonnes
283 koz. of contained gold (inferred)
average gold grade – 0.30 g/t
203 M lbs. contained copper (inferred)
average copper grade – 0.31%
1,880 koz contained silver (inferred)
average silver grade – 2.0 g/t

Technical Report

The Kemess Technical Report with an effective date of July 14, 2017 can be found under the AuRico Metals Inc. profile on www.sedar.com. To the best of our knowledge, information and belief, there is no new material scientific or technical information that would make the disclosure of the mineral resources or mineral reserve, and other technical information on the Kemess Project as set out in the Kemess Technical Report to be inaccurate or misleading.

Kemess Silver Streaming Arrangement

Pursuant to a silver stream agreement entered into with Triple Flag dated June 27, 2018, the Company has agreed to sell 100% of the silver production from the Kemess project in exchange for advance payments for silver payable in tranches of $10 million, $10 million, $12.5 million and $12.5 million. The payments would be due upon public announcement of a construction decision for the Kemess underground development project and the three succeeding anniversaries of such date. In addition, Triple Flag will make ongoing payments of 10% of the then current market price for each ounce of silver delivered. No construction decision has been made yet.

Property Description and Location

Location

The Kemess Project is located in a mountainous area of north-central British Columbia, Canada, approximately 250 km north of Smithers and 430 km northwest of Prince George.

The property is host to the former Kemess South ("KS") Mine (operated from 1998 to 2011), the Kemess Underground ("KUG") deposit, and the Kemess East ("KE") deposit. Work on KS is now focused on reclamation and site rehabilitation. The KUG project will use existing infrastructure originally used for the KS Mine which remain at site. The remainder of this section will primarily relate to the KUG deposit and the KUG Project unless otherwise noted. References to activities completed before January 8, 2018 relate to matters pre-dating our ownership of the Kemess Project.

Mining Licenses

The Kemess Project is comprised of 53 mining claims totaling 29,178 ha. AuRico also has an additional four mining leases totaling 3,483 ha. Rental payment on the four mine lease titles is due annually in September.

Mineralization

The KUG deposit is a copper-gold-silver porphyry deposit and is typical of calc-alkaline porphyry copper-gold deposits in the western cordillera. The deposit has a low-grade ore zone at a depth of 150 m below the surface on its western flank and a higher-grade zone 300 m to 550 m below surface on the eastern side, which forms the KUG project. KUG is hosted
by potassic altered Takla Group volcanic rocks and Black Lake plutonic rocks. The deposit is centered on a mineralized porphyritic monzodiorite/diorite pluton and associated WSW trending dykes, which extend to the southwest. Higher grade copper-gold mineralization is characterized by secondary biotite alteration in the volcanic and the eastern plutonic host rocks.

The KE deposit is a copper-gold-silver-molybdenum porphyry deposit and is also typical of calc-alkaline porphyry copper-gold deposits in the western cordillera. The deposit is deeply buried and mineralization starts at an average depth of 900 m below surface and extends to 1,500 m below surface. Unlike KUG, there is no significant low-grade mineralization associated with KE. At KE, there is reasonable continuity of mineralization within the deposit. KE is mostly hosted by potassic altered Black Lake plutonic rocks. In the eastern portion of the deposit, weak mineralization is hosted within potassic altered Takla Volcanics, but still largely within the Black Lake plutonic rocks.

Kemess’ Mineral Reserves and Mineral Resource Estimates

For information on the Kemess Project mineral reserves and mineral resources, see “Mineral Reserves and Resources” starting on page 23.

Mining Operations

Mining

It is expected that the KUG deposit will be mined with an underground panel caving approach. The KUG mine will be located approximately 6.5 km north of the existing KS site.

It is expected that triple declines will be developed comprising access, intake air and conveyor declines. The access decline will provide access for personnel, equipment, and materials/consumables. The final design establishes a single extraction level that includes 582 drawpoints (291 drawbells). The cave will be initiated in the highest-grade ore in the northeast of the orebody and progress to the southwest over the life of the mine.

Processing

The KUG project intends to process 12.7 Mt/y (35,000 t/d equivalent) through the grinding circuit, with one of the two original KS grinding circuits that processed KS ore was removed, so additional mills will be installed to achieve the required capacity. The Kemess grinding circuit is expected be used to process the KUG ore following primary crushing underground and stockpiling ahead of the process plant. The original flotation facilities remain; however, these will be retrofitted to incorporate both cleaner and cleaner scavenging. In addition, additional regrind capacity will be added to the circuit to achieve a finer grind size. Thickening, and concentrate handling facilities remain from KS operations. The tailings will be pumped to the KS open pit, which is permitted for use as a tailings storage facility. The KS open pit has a capacity for approximately 107 Mt tailings and 3.0 Mt waste rock from KUG mine development. To achieve this storage capacity, a 25m high dam (the “East Dam”) is required to be constructed at the east end of the open pit. A spillway will be constructed in the south-west area of the pit to allow discharge of excess water once KUG operations have ceased while ensuring adequate water cover of PAG tailings.

For KUG ore, the process plant will produce a single concentrate at an estimated grade of 21% Cu, and is expected to achieve recoveries of 93% Cu, 69% Au and 65% Ag. Concentrate would be trucked to a Company-owned load-out facility in Mackenzie for subsequent rail transport to market. Test work indicates that KUG ore would produce a concentrate that is free of deleterious elements and readily marketable to both smelters and traders.

Production Estimates

It is expected that first ore will be mined at the KUG project 3 years after commencement of construction activities, with processing commencing in the subsequent year. Total ore mined over the 10-year LOM is expected to be 107.3 Mt at 0.27% Cu and 0.54 g/t Au and 1.99 g/t Ag for 285.7 kt Cu, 1,868 koz Au and 6,878 koz Ag, at an all-in sustaining costs (a non-GAAP measure) of $244/oz Au on a by-product basis.

Environmental Matters

AuRico received a provincial EA certificate for the Kemess Underground project in March 2017. As part of the EA process, AuRico considered potential effects on several valued components of the natural and human environment including, among other components, aquatic and terrestrial ecosystems, current use of lands and resources for traditional purpose. The most substantive potential impacts of the project are associated with the long-term management of waste rock, tailings, mine water and process water and their potential downstream effects on high quality fish habitat. This assessment is based upon a number of factors, including; high quality fish habitat in potential receiving environments; water quality; environmental flow needs for surrounding streams; and waterbodies such as Thutade Lake and the Finlay River which are highly valued by Indigenous groups who have traditional territories in the
area. With the application of appropriate engineering design, project planning, and implementation of mine and environmental management plans, it is anticipated that the project will avoid significant environmental effects.

In addition to the EA certificate, the KUG project is required to obtain a number of new provincial and federal licenses/permits. A number of existing permits for the KS Mine have been in place since 1996 and are in good standing but may require amendment or renewal before construction or operations begin. On August 31, 2017, the Company submitted permit applications to the British Columbia Major Mines Permitting Office for the commencement of construction at KUG, including construction of a water treatment and water discharge system. KUG received in July 2018 all of the permits required to commence construction. On September 21, 2018, the Company also received its effluent discharge permit which allows discharging treated water from the site. Currently amendments have been submitted for an increase in throughput to help improve the economics of the mine. These amendments focus provincially on the Mines Act and the Environmental Management Act as well as an amendment to the Federal Decision Statement from Impact Assessment Agency of Canada (formerly the Canadian Environmental Assessment Agency). These amendments are currently being screened or reviewed by Provincial and Federal agencies respectively.

Water Management

Tailings and mine development waste rock are expected to be stored in the KS open pit (the proposed KUG TSF). The PAG waste materials will be stored under a water cover to prevent metal leaching/acid rock drainage. At closure, a NAG tailings beach extending from the East Dam to the supernatant pond will be present on the eastern end of the KUG TSF. As the KUG mine approaches the end of its operational life, a large above-water beach will exist on the east end of the KUG TSF.

During operations, process water from the KUG TSF supernatant pond are expected to be reclaimed for use as mill process water and excess water treated and discharged to Attichika Creek. The sludge produced from the water treatment plant during operations will be sub-aqueously stored in the KUG TSF.

The closure phase will extend for the period of time (currently predicted to be six years) required for ongoing treatment of water within the KUG TSF and controlled discharge to Attichika Creek. Excess water in the KUG TSF supernatant pond will continue to be treated in the closure phase and thereafter until the water quality meets discharge criteria. The discharge rate from the KUG TSF will decline to approximately 1.5 Mm3/year (96 L/s) in the closure phase and be treated and discharged during approved periods, while waterways are open and flowing. Continued operation of two water treatment streams will be required for metals removal (rated to treat a maximum of 187 L/s) and selenium removal (rated to a maximum of 75 L/s) throughout the active closure phase, these two treatment streams will be housed within the same building on site.

Once water quality within the KUG TSF reaches concentrations that would allow for untreated discharge to the receiving environment, active water treatment would cease and the KUG project would transition to post-closure. No water treatment is expected post-closure as water quality modelling results indicate that there are no contaminants of potential concern downstream of the proposed discharge location.

When water quality in the KUG TSF meets discharge criteria without treatment, the upslope diversion ditch will be regraded to original elevation and this will allow catchment runoff and melt-water to flow into the KUG TSF and out through the closure spillway to Waste Rock Creek and ultimately to Attichika Creek.

Indigenous and Public Consultation

AuRico (prior to our acquisition) engaged substantively with the surrounding communities and impacted Indigenous groups regarding the KUG project and gaining support for the project. Discussions with Indigenous groups on the project continue and serves to identify the project’s potential effects on communities and Indigenous groups and opportunities to align interests and increase project benefits.

Kemess East

In May 2017, AuRico (prior to our acquisition) completed a PEA on the KE project. The PEA for the KE project presents a stand-alone scenario that does not factor in or modify in any way the economics of the feasibility stage KUG project. The PEA does, however, assume that the KUG project is advanced ahead of KE, and hence a number of project components, most notably the access corridor connecting KUG to the KS process plant, the triple decline access to the KUG footprint and the water treatment plants associated with KUG, are not duplicated in the capital expenditures for KE, these assets would be shared by both projects.

Readers are cautioned that the PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.
The PEA for the KE project is based on a mine plan for an underground panel cave with initial production beginning 4 years following the start of development of the KE declines and ramping up to a steady-state production rate of 30,000 tonnes per day. The PEA estimates average annual gold equivalent production of 222,000 ounces, based on annual production of 80,000 ounces of gold, 57 million pounds of copper and 318,000 ounces of silver, at all-in sustaining costs on a co-product basis of $611 per ounce gold or $1.47 per pound copper over a 12-year life. The KE mineral resources are located approximately 800 m to 1,140 m below surface. The KE cave footprint is 400 m by 275 m and will be accessed and supported by a twin decline system for access and ore conveying. This twin decline system starts from the KUG declines, utilizing 2.5 km of planned KUG development. A raise from surface supplies fresh air to the KE mine levels and is exhausted via the KE twin declines to the KUG exhaust ventilation system.

Following extraction from the KE cave and primary crushing underground, ore would be conveyed to the existing KS process plant where it will be processed at an average rate of 30,000 tonnes per day using existing grinding, flotation, thickening, and concentrate handling facilities; and a grinding circuit of increased capacity included in the PEA design. Concentrate will be trucked to the Company-owned loadout facility in Mackenzie for subsequent rail transport to market.

The PEA identified many opportunities for the Company to further evaluate with the primary opportunity being integration with the KUG project to achieve optimal sequencing, tailings management, and economies of scale in areas including ore processing, G&A and site services. In addition, potential exists to improve the quality and quantity of the KE mineral resource by additional in-fill and expansion drilling.

**Kemess Property Exploration**

The field based component of the 2018 Kemess exploration program ran from July 14th to November 29th. The program comprised a historic core relogging and pulp sampling program focused on the Nugget brownfield target and the KUG deposit. For Nugget, located 1.8 km west of KUG, 4,419 m of historic drill core in eight holes was re-logged and 3,923 historic pulp samples were sent for re-assay with a multi-element analytical package. A geological cross section was developed to provide an improved understanding in advance of drill hole planning for 2019. Re-logging identified the presence of three porphyry phases and associated breccias. For KUG, 3,760 m of historic drill core in six holes was re-logged. The six KUG holes comprised a first draft geological cross section through the western portion of the KUG deposit including projection of the system beyond its previously interpreted southern limit. The southern end of this cross section is 300 m west of a newly identified geophysical target that has been untested by drilling. In addition, 230 kg of historic drill core intervals selected for metallurgical testing were identified, sampled and shipped for analysis.

The 2019 Kemess exploration program included, (i) a 47-hole, 15,972.81 m historic core relogging program in four target areas. The Phase-1 drilling program ran from June to August 2020 and focused on the Kemess North Trend targets, including three drill holes (4532.6 m) at Nugget and one drill hole (1919.7 m) at KUG shoulder/footwall zone. At Nugget, low grade porphyry Cu-Au mineralization was intersected in the volcanic host rocks to monzodiorite porphyry stocks. The Phase-2 drilling program ran from September to October and focused on the Kemess South Trend, specifically the Shrek geophysical target located 1.5 km east of the Kemess South open pit. A total of 1610.0 m in two drill holes was completed at Shrek. Narrow intervals of low-grade gold mineralization were returned and the geophysical response was determined to be related to graphitic sedimentary rocks. In addition, all 2018 whole rock geochemistry analyses of pulp samples from the 2002 Nugget drilling program were returned in the first quarter of 2019, a total of 3,923 samples.

**Sampling and Analysis, Data Verification and Security of Samples**

Samples from the 2002 drilling campaign at the Nugget prospect were submitted to BV Labs for major and trace element analyses. These samples were only assayed for Au and Cu during the 2002 program. All samples were analyzed for a 45 element package (including copper and base metals) using a 4 acid digest and inductively coupled plasma – mass spectrometry/emission spectroscopy (ICP-MS/ES) on a 0.25 g aliquot (BV lab code MA200). Over limits of copper ≥ 1% triggered analysis using ICP-MS with AAS finish (MA404) on a 0.50 g aliquot. Over limits of silver ≥ 100 ppm triggered 30 g fire assay with gravimetric finish (FA530). Over limits for sulfur (>10%) triggered Leco analysis (TC000). Mercury was analyzed using a 4 acid digest and cold vapor atomic absorption spectrometry (CV400).

CRM, blanks, and duplicates were used to monitor QA/QC of the core sampling, processing, and assaying processes. During the 2002 drill program, all samples were marked with a unique sample ID number and sample tag in the core box by a logging geologist and cut using an electric core saw. Samples were crushed and pulverized on site. While sampling drill core, the logging geologists inserted CRMs, coarse blank samples, and coarse crush duplicates randomly into the sample sequence with an insertion rate of one in 26. The CRM used during the 2002 program was only certified for Au. In order to assess analytical processes for the major and trace element analyses, all of the CRMs within the sample sequence were replaced with OREAs 501c prior to sample submission in 2018. As this program is intended to be used for alteration modelling and targeting, and not to replace the existing Cu and Au analyses, the 2002 insertion...
rate was deemed acceptable. Once all of the CRM samples were replaced, all of the pulps were repacked into cardboard boxes and five gallon buckets. All samples were delivered to BV Labs as one shipment. A copy of the sample submission form was attached to the outside of the shipment, and emailed to the exploration database manager as well as to BV Labs.

Samples from the 2019 Nugget and Kemess South drilling campaigns were submitted to BV labs for major and trace element analysis. At BV, samples were prepared as follows (code PRP80-250):

- Samples were dried and weighed.
- 1 kg sub-samples were crushed to ≥ 80% passing ~2 mm.
- Crushed material then riffle split and a 250g sample pulverized to ≥ 85% passing 75 μm.

Samples were then analyzed for major and trace element analyses. Gold was assayed using a 30 g fire assay with atomic absorption spectrometry (AAS) finish (BV lab code FA430). All samples were also analyzed for a 45 element package (including copper and base metals) using a 4 acid digest and inductively coupled plasma mass spectrometry/emission spectroscopy (ICP-MS/ES) on a 0.25 g aliquot (BV lab code MA200). Copper results ≥ 1% triggered analysis using 4 acid digest with AAS finish (MA404) on a 0.50 g aliquot. Sulfur >10% triggered Leco analysis (TC000).

For 2019 diamond drilling, certified reference materials (CRM), blanks, and duplicates were used to monitor quality assurance and quality control (QA/QC) of the core sampling, processing, and assaying processes. All samples were marked with a unique sample ID number and sample tag in the core box by a logging geologist and cut using an electric core saw. While sampling drill core, the logging geologists inserted CRMs and coarse blank samples alternately into the sample sequence every 10 samples. 2 kg samples of barren granite, sourced from the Cox Station Quarry in Abbotsford, were used for blank material. One copper-gold standard was purchased from CDN Resource Laboratories Ltd. in Delta, British Columbia, and three different copper-gold and multi-element certified standards from Ore Research and Exploration Pty Ltd. The standards were selected to match low, medium and high-grade mineralization ranges and are dominantly sourced from copper-gold bearing porphyry intrusive rocks.

Field and coarse reject duplicates were inserted alternately into the sample sequence every 20 samples. Field duplicates were prepared by quartering one half of the core, with one quarter sent for analysis with a unique sample ID, and the other remaining in the core box. Coarse reject duplicates were prepared at BV labs prior to sample pulverization. The QC insertion rates are acceptable according to current CIM best practice standards, with QC samples accounting for ~15% of 2019 assay database.

After the assay results were received from the lab, gold, copper and silver assays were checked by a Centerra database manager using control charts for the CRMs, blanks and duplicates. Any quality control failures (samples bracketing CRMs with assay values ± three standard deviations of the expected value) were documented and relevant batches of samples were requested for re-assay by BV labs using the primary pulp.
Quick Facts

Pursuant to an amended and restated partnership agreement entered into with Premier Gold Mines Limited ("Premier") dated March 9, 2015 (the “Partnership Agreement”), Centerra and Premier formed a 50/50 partnership (the “Greenstone Partnership”) for the joint ownership and development of the Greenstone Gold Property (formerly known as the Trans-Canada Property). Pursuant to the Partnership Agreement, Centerra has agreed to make capital contributions to the Greenstone Partnership in the aggregate amount of C$185 million, half of which is on behalf of Premier. As of December 31, 2019, Centerra has contributed C$138.8 million to the Greenstone Partnership.

The managing partner of the Greenstone Partnership is Greenstone Gold Mines GP Inc. (“GGM”), which is owned 50/50 by Centerra and Premier. GGM is the current owner of all claims and leases comprising the Greenstone Gold Property.

The major deposits within the Greenstone Gold Property are the Hardrock, Brookbank, Kailey and Key Lake deposits, and the Bankfield West and Viper exploration targets.

<table>
<thead>
<tr>
<th>Location</th>
<th>Ontario, Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership</td>
<td>50%</td>
</tr>
<tr>
<td>Business Structure</td>
<td>Centerra holds its 50% limited partnership interest in the Greenstone Partnership, and its 50% interest in the managing partner, GGM, through a wholly owned subsidiary, AuRico Canadian Royalties Holdings Inc.</td>
</tr>
<tr>
<td>End Product</td>
<td>Gold doré</td>
</tr>
<tr>
<td>Proposed Mine Type</td>
<td>Open pit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated Mineral Reserves (Centerra’s share) As at December 31, 2019</th>
<th>Tonnes (kt)</th>
<th>Grade (g/t)</th>
<th>Contained gold (koz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total proven and probable mineral reserves</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardrock - open pit</td>
<td>70,858</td>
<td>1.02</td>
<td>2,324</td>
</tr>
</tbody>
</table>
**Estimated Mineral Resources** (Centerra’s share)  
As at December 31, 2019

Mineral resources are in addition to reserves. Mineral resources do not have demonstrated economic viability.

Inferred mineral resources have a great amount of uncertainty as to their existence and as to whether they can be mined economically. It cannot be assumed that all or part of the inferred resources will ever be upgraded to a higher category.


<table>
<thead>
<tr>
<th>Total Measured and Indicated Mineral Resources</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonnes (kt)</td>
<td>Grade (g/t)</td>
</tr>
<tr>
<td>Hardrock - open pit</td>
<td>5,722</td>
</tr>
<tr>
<td>Hardrock – underground</td>
<td>6,846</td>
</tr>
<tr>
<td>Brookbank – open pit</td>
<td>1,319</td>
</tr>
<tr>
<td>Brookbank – underground</td>
<td>926</td>
</tr>
<tr>
<td>Key Lake – open pit</td>
<td>1,286</td>
</tr>
<tr>
<td>Key Lake – underground</td>
<td>16</td>
</tr>
<tr>
<td>Kailey</td>
<td>4,315</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inferred Mineral Resources</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonnes (kt)</td>
<td>Grade (g/t)</td>
</tr>
<tr>
<td>Hardrock – underground</td>
<td>10,754</td>
</tr>
<tr>
<td>Brookbank – open pit</td>
<td>86</td>
</tr>
<tr>
<td>Brookbank – underground</td>
<td>202</td>
</tr>
<tr>
<td>Key Lake – open pit</td>
<td>673</td>
</tr>
<tr>
<td>Key Lake – underground</td>
<td>29</td>
</tr>
<tr>
<td>Kailey</td>
<td>1,844</td>
</tr>
</tbody>
</table>

**Employees (Greenstone Gold Mines GP Inc.)** 42

**Technical Report**

The Hardrock Technical Report, with an effective date of October 1, 2016 was filed on December 21, 2016 on [www.sedar.com](http://www.sedar.com).

**Property Description and Location**

The Greenstone Gold Property is located in northern Ontario, Canada approximately 275 km northeast of Thunder Bay, Ontario. The property consists of four claim groups including Hardrock, Brookbank, Key Lake and Viper with a cumulative strike length of more than 100 km located along, or in close proximity to the Trans-Canada Highway between the towns of Geraldton and Beardmore in the Province of Ontario.

Greenstone Gold Property consists of 311 patented and leased mining claims plus 1,585 unpatented mining claim cells covering an aggregate area of 39,083 ha. All of the claims, leases and licenses of occupation are beneficially held by GGM on behalf of the Greenstone Partnership and are subject to terms under a number of agreements. The major claim groups within the Greenstone Gold Property are as follows:

<table>
<thead>
<tr>
<th>Project</th>
<th>Claim groups</th>
<th>Description of Claim</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardrock Project</td>
<td>Hardrock and Kailey</td>
<td>A contiguous block of patented claims, mining leases, licenses of occupation and staked claims covering a total area of 15,028.46 ha. The Hardrock Project is located approximately at Latitude 49°40’N and Longitude 86°56’W in the townships of Lindsley, Errington, Salsberg, McKelvie and Ashmore, and four km south of the town of Geraldton.</td>
</tr>
<tr>
<td>Brookbank Project</td>
<td>Brookbank, Cherbourg and Fox Ear deposits and the Irwin prospect</td>
<td>939 unpatented cells and mining leases and totaling 18,944 ha. It is located 14 km northeast of the town of Beardmore, Ontario. The Greenstone Partnership owns 100% of 1 lease that comprise the Brookbank project with the remaining portion (18 leases) of the Brookbank project subject to a joint venture agreement with Metalore Resources Limited</td>
</tr>
<tr>
<td>Project</td>
<td>Claim groups</td>
<td>Description of Claim</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Key Lake</td>
<td>Includes the past producing Jellicoe mine</td>
<td>The Key Lake deposit consists of 21 mining claims totaling 341 ha and is 100-percent owned by the Greenstone Partnership. The Key Lake deposit is 12 km west of the town of Geraldton, Ontario. It is a few hundred metres north of the Trans-Canada Highway.</td>
</tr>
<tr>
<td>Viper project</td>
<td>Various exploration prospects</td>
<td>The Viper project was staked by Premier in October 2013 with three additional claims staked in May 2014, and an additional isolated claim was added in October 2015. The Viper project is 100% owned by Greenstone Partnership and is made up of 216 unpatented claim cells totaling 4,235 ha.</td>
</tr>
</tbody>
</table>

**Royalties and Other Agreements**

**Indigenous Communities**

The Greenstone Partnership has entered into definitive agreements with Long Lake #58 First Nation, the Métis Nation of Ontario Secretariat Inc., and Aroland First Nation, Animbiigoo Zaagi'igan Anishinaabek, and Ginoogaming First Nation.

**Royalties**

Conventional royalties or taxes on possible future mineral production will be due to the Ontario or federal governments.

There are a number of underlying agreements and royalties that apply to some of the mining claims constituting the Greenstone Gold Property, including a 3% NSR royalty in favour of Franco-Nevada over the Hardrock Project deposit.

Map of Greenstone Project showing mining titles subject to an NSR
Permits and Other Agreements

Permits are required to undertake surface stripping and trenching and drilling. The Greenstone Partnership completed 12,143 m of diamond drilling and 5,999 m of reverse circulation (RC) drilling in 2019 with a view to confirming or improving the accuracy of the resource model.

The Hardrock project received in December 2018 federal approval of its the Environmental Impact Study and Environmental Assessment (“EA”) on the Hardrock Project. The provincial approval was subsequently received in March 2019.

In 2019, the managing partner for the Greenstone Partnership continued to execute on the plan of advancing the project permitting with several permits applied for throughout 2019, including the mine closure plan which was submitted in November 2019.

Mineral Resource and Mineral Reserve Estimates

The Company notes that Premier Gold Mines Limited, our 50% joint venture partner in the Greenstone Partnership, has issued a news release in October 2019 announcing a mineral resource estimate for the Hardrock property which was completed by G-Mining Services Inc. Centerra’s technical staff has reviewed the mineral resource estimate published by Premier and raised significant concerns regarding its use of certain technical parameters, as well as the related cost assumptions. Those parameters and assumptions have since become the subject of a legal proceeding involving Centerra’s wholly owned subsidiary, AuRico Canadian Royalty Holdings Inc. (“AuRico Holdings”), and Premier. Accordingly, an independent third-party expert was retained by Centerra to review the parameters of the resource estimate and a more comprehensive review of the cost assumptions has been undertaken. That work is ongoing. Until such work is complete, Centerra is not in a position to endorse or accept the work product published by Premier and will instead rely on the 2016 Hardrock Technical Report. See “Greenstone Partnership Litigation” below).

Hardrock Project

The Mineral Resource estimate covers a corridor of the Hardrock deposit with a strike length of 5.7 km and a width of approximately 1.7 km, down to a vertical depth of 1.8 km below surface. Mineralized zones were interpreted in 3D using GEOVIA GEMS and Paradigm GOCAD software based on a litho-structural model and the drill hole database. The drill hole database used in the estimate contained 304,940 sampled intervals from 684,116 m of diamond drilling in 1,629 holes and 1,219 assays from 26 channel samples.

Mineral Resources were estimated by applying a minimum true thickness of 3.0 m and using the grade of the adjacent material when assayed or a value of zero when not assayed. High-grade capping on raw assay data was established on a per zone basis and ranged from 15 to 45 g Au/t. Drill holes falling within the mineralized zones were composited to 1.5 m intervals. Mineral Resources were estimated using 3D block modelling and 3-pass ID3 interpolation.

Mineral Resources were classified as Indicated only in areas where the maximum distance to drill hole composites was less than 35 m for blocks interpolated in passes 1 and 2 (using a minimum of two drill holes). Mineral Resources were classified as Inferred in areas where blocks were interpolated during passes 1 to 3 and isolated blocks were reclassified as “exploration potential” on a visual basis. No Measured Mineral Resources were estimated for the Project.

The Mineral Reserve estimate for the Hardrock Project is consistent with the CIM definitions and is suitable for public reporting. As such, the Mineral Reserves are based on Measured and Indicated Mineral Resources, and do not include any Inferred Mineral Resources. There are only Indicated Mineral Resources and no Measured Mineral Resources. Therefore, all of the Mineral Reserve estimate is classified as Probable. The Inferred Mineral Resources contained within the mine design are classified as waste.

Open pit optimization was conducted using GEOVIA Whittle software to determine the optimal economic shape of the open pit to guide the pit design process. The Mineral Reserve estimate includes a 17.3% mining dilution at an average grade of 0.15 g Au/t and a 1.4% ore loss factor.

A feasibility level pit slope design study was carried out by Golder. The conclusions of this study have been used as an input to the pit optimization and design process.

For information on the mineral reserves and mineral resources, see “Mineral Reserves and Resources” starting on page 23.
Other Greenstone Gold Property Deposits

In addition to the Hardrock deposit, mineral resources were estimated for Brookbank, Key Lake and Kailey deposits. Open pit optimization using GEOMIA Whittle software, based on the Lerchs-Grossmann algorithm, was completed to estimate in-pit Mineral Resources for all three deposits. For Brookbank and Key Lake, underground Mineral Resources, see “Mineral Reserves and Resources” starting on page 23.

Mining Operations

Mining

Mining will be carried out using conventional open pit techniques with 10 m benches. An owner mining open pit operation is planned with hydraulic shovels and mining trucks and includes outsourcing of certain support activities such as explosives manufacturing and blasting.

Production drilling of the 10 m benches will be by blast hole drill rigs with both rotary and down-the-hole drilling capability. Blast holes are loaded with bulk emulsion. The majority of the loading in the pit will be carried out by three hydraulic face shovels, two 26 m³ and one 19 m³ and two front-end wheel loaders (21 m³). The shovels and loaders will be matched with a fleet of 181 t payload mine trucks. The presence of underground stopes was considered when designing the pits mainly for the void in the F-Zone, which is 150 m high and 30 m wide. Most of the other underground openings are backfilled with sand fill or rock fill.

Mining of the Hardrock main pit will occur in phases (including the borrow pit) with a single phase for the smaller pit extension to the east. Waste rock will be disposed of in four distinct waste dumps with three located around the pit and one further to the south. The open pit generates 548.9 Mt of overburden and waste rock (inclusive of historic tailings and underground backfill) over the LOM for an average LOM strip ratio of 3.87:1.

The LOM plan details 14.5 years of production at a plant nameplate capacity of 27,000 t/d.

Mineral Processing and Metallurgical Testing

Between 2011 and 2013, mineralogy, grindability and gold recovery test work was performed by SGS Lakefield Research Limited (“SGS Lakefield”) and McClelland Laboratories, Inc. The SGS Lakefield test work showed that the ore is composed mainly of quartz and plagioclase with minor amounts of pyrite and arsenopyrite, the gold occurs mainly as native gold, the ore is in the category of medium hardness to moderately hard, a portion of the gold can be recovered by gravity concentration and gold can be recovered to a bulk concentrate. The subsequent McClelland Laboratories, Inc. test work showed that gold recovery increased with finer grind size but was not affected by cyanide concentration.

In 2015/2016 additional test work was carried out by SGS Lakefield, JKTech Pty Ltd and FLSmidth. Primarily, high pressure grinding roll (“HPGR”) tests were required to confirm the ore amenability for high pressure grinding, to select the equipment and estimate the operating costs. Grindability, head grade determination, mineralogy, magnetic separation, gravity recovery, flotation, cyanidation, cyanide destruction, solid-liquid separation and other tests were completed. Additional thickening and rheology test work was carried out to determine the sizing and operating parameters of a pre-leach thickener.

The HPGR testing program included laboratory scale tests (batch and locked-cycle tests) to determine the amenability of the ore to HPGR milling and yield data to perform a preliminary sizing; abrasion tests to provide the data necessary to predict the service life of the rolls and a large-scale pilot plant test to adequately size the equipment. Bond grindability testing was performed to evaluate the BWI reduction of the HPGR product compared to the feed. A detailed comminution trade-off study recommended two stage crushing followed by HPGR and ball milling over other typical comminution flowsheets such as crushing followed by SAG milling and ball milling, to reduce the risk in not meeting the design throughput and increase energy efficiency.

A multivariate linear regression analysis was used to determine the correlation between the residual gold grade and the ore body mineralogical composition. The results of the cyanidation tests conducted on composites were used as the basis for the analysis. The residual gold grade from the cyanidation test work was found to be highly correlated to the gold, arsenic and sulphur head sample grades, and somewhat less predominantly to grind size.

A metallurgical gravity concentrate and leach recovery test work program were carried out on composites from the 20,000-m 2018 drilling campaign with recoveries similar to estimates noted in the 2016 Feasibility Study.

The gold recovery process for the Project consists of a crushing circuit (gyratory and cone), a grinding circuit (HPGR and ball mill), pre-leach thickening, a leach and CIP circuit, cyanide destruction and tailings disposal, carbon elution and electrowinning, carbon regeneration and a gold refinery. The process operation schedule is 24 hours per day, 365 days per year, with an overall availability of 92%.
Gold production averages 356 koz for the first four full years of production (Year 2 to 5) with an average head grade of 1.27 g Au/t and an average metallurgical recovery of 90.6%.

Environmental Matters

Environmental baseline studies were initiated for the Project in 2013 and were used to identify environmental constraints during the development of preliminary layouts and designs for the Project. This includes consideration of siting and layout of Project infrastructure as well as consideration of design alternatives from an environmental management and approvals perspective. This environmental baseline was the basis for determining incremental changes and predicting environmental effects associated with the Project.

An environmental impact statement / environmental assessment was approved by the federal government in December 2018 and provincial government in March 2019, allowing GGM to start applying for the environmental permits required for the Project. Throughout 2019, GGM submitted numerous applications and received federal authorization under Section 35 of the Fisheries Act as well as the Release of Tree Reservations from the provincial Ministry of Natural Resources and Forestry which allows GGM to clear trees on patent land within the Project Development Area. GGM also received approval of the filed Closure Plan from the provincial Ministry of Energy, Northern Development and Mines in early January 2020. Active consultation with stakeholders (community members, agencies and interested parties) and Indigenous communities has been undertaken throughout Project planning including the preparation of the environmental impact statement / environmental assessment and permits and will continue as the Project progresses.

Historical Environmental Issues and Liabilities

The Hardrock Project is situated within a historical mine site for which Premier acquired the mining claim in December 2008. The property is a brownfield site that was actively mined during the 1930-1970s by two mines known as the MacLeod-Mosher and Hardrock Mines.

Since mining ceased in the 1970s, decommissioning and remediation activities have been completed at the historical Hardrock Mine and MacLeod-Mosher Mine with a focus on arsenic impacted soils and materials. Despite these efforts, residual soil with primarily arsenic concentrations above applicable environmental criteria exist and will need to be managed as part of the Project development.

Surface infrastructure associated with these underground mines has been removed, with the exception of the former headframe, referred to as the McIntyre headframe, various mine openings (e.g., shafts, a glory hole, raises), and tailings areas remain. Two tailings areas associated with the historical mines are located within the Hardrock Project development area (“PDA”) and are referred to as the MacLeod High/Low tailings and Hardrock tailings. Characterization and rehabilitation works have been completed at the historical mine sites between 1988 and 2000. With the exception of the western portion of the historical Hardrock tailings, acid rock drainage conditions are unlikely. Groundwater and seepage water quality associated with the tailings is poor (especially with respect to arsenic) and has influenced water quality in Kenogamisis Lake. A number of shafts and underground stopes exist from historical underground mining activities at the former MacLeod-Mosher and Hardrock mines. The presence of the underground stopes was considered when designing the open pit, mainly for the unfilled voids which are located at depth. Most of the other underground openings are backfilled with rock. The remediation and rehabilitation of the mines was prior to current closure planning regulations.

The Hardrock Project has included plans to relocate approximately 77% of the historical Hardrock tailings and 22% of the historical MacLeod tailings to a secure long-term management facility which has been demonstrated to result in improvements to water quality in Kenogamisis Lake.

Mine openings associated with the former MacLeod-Mosher and Hardrock mines fall within the footprint of the open pit with the exception of the Mosher No. 1 Shaft and Hardrock No. 1 Shaft. As the ground surface at the remaining openings will be mined and be within the boundaries of the open pit, these structures will be secured from access by removal due to the open pit. No further closure work related to these openings is expected. The Mosher No. 1 Shaft will be stabilized and secured (capped) in accordance with O. Reg. 240/00 once no longer required. Hardrock No. 1 Shaft is currently cap in accordance with O. Reg. 240/00. At closure, the cap will be inspected by a Qualified Professional Engineer and, if required, stabilized and secured (capped) with a new cap in accordance with O. Reg. 240/00. The sealing of Hardrock No.1 Shaft will evaluate the potential connection with the open pit and be designed to prevent outflow from the shaft to Kenogamisis Lake. A failed stope, referred to as the “Glory Hole” has been fenced and secured at surface.

Greenstone Partnership Litigation

On December 23, 2019, the Company’s wholly owned subsidiary, AuRico Holdings, filed with the Ontario Superior Court of Justice a statement of claim against the Greenstone Managing Partner, Premier and Premier’s nominees to the Greenstone Board. Among other things, the claim relates to whether a report prepared by G-Mining Services Inc. on
behalf of the Greenstone Managing Partner constitutes a Feasibility Study under the Partnership Agreement, and how the Greenstone Managing Partner and Premier responded to questions regarding the report that were raised by members of the Greenstone Board, AuRico Holdings and the independent third party expert retained by Centerra to review it. Statements of defense and counterclaim have been filed by Premier, two individuals nominated by Premier to the Greenstone Board, and the Greenstone Managing Partner.
3.3 Other Properties (Exploration)

In 2019, we surrendered our interest in the Yamaç property in Turkey, and terminated the Strategic Alliance Agreement dated January 1, 2016 with Erris Resources Limited in respect of mineral exploration in Sweden and Finland. In January 2020, we also terminated the strategic agreement with Gengold Resource Capital Pty. Ltd. in relation to the areas of Burkina Faso and Côte d’Ivoire.

We are party to various option agreements regarding the following exploration properties where our ownership interest in the underlying properties have not yet vested. In 2019 and to the date of this document, we relinquished our rights to earn-in interests in the El Picacho and La Navidad properties in Mexico.

Canada – Berg

Berg is a copper, molybdenum and silver exploration project located in British Columbia, Canada. We acquired our interest in the Berg property in connection with the acquisition of Thompson Creek in October 2016. The Berg property comprises 115 mineral claims and one mining lease centered at 53° 48’ North Latitude and 127° 26’ West Longitude for a total of approximately 45,949 acres. The Berg property is 100% owned by us with a 1% net smelter return royalty held by Royal Gold on eight of the mineral claims and one mining lease, including those which host the deposit on the Berg property. All mineral claims and the mining lease are in good standing. Mineral claims are subject to exploration expenditure obligations, or we may choose to pay annual fees to the province in lieu of exploration expenditures. We expect to renew such mineral claims and mining lease in the ordinary course.

Canada – Chuchi Property

The Chuchi property is located approximately 190 kilometres northwest of Prince George and 36.5 kilometres west-northwest of the Mount Milligan Mine. It comprises 16 mineral claims, centered on 55.263°N, 124.545°W, covering an area of 6,102.10 ha. The property was acquired in early 2018 through the acquisition of AuRico Metals Inc. It is located at the southeastern margin of the of the regional-scale Hogem intrusive complex in the Quesnel island arc terrane of Northcentral British Columbia. The main target on the property, historically named the BP zone, comprises an alkalic porphyry copper-gold deposit with a 12 square-kilometre alteration footprint. The BP zone was tested with drilling in the late 1980s and early 1990s with 79 holes drilled to an average depth of less than 165 m.

Canada – Max Property

The Max property is located approximately 150 kilometres northwest of Prince George and 21 kilometres south of the Mount Milligan Mine. It is 100% owned by Jama Holdings Inc. (“JAMA”) and comprises 12 claims, centered on 54.920°N, 124.067°W, covering an area of 4868.83 ha. We entered into an option agreement with JAMA dated August 14, 2018 for the Max property in the Province of British Columbia and adjacent to the Mount Milligan Mine. Pursuant to the option agreement, we have the right to acquire a 51% interest in the property by (i) making cash payments to JAMA over a four-year period from the date of the agreement totaling C$200,000; and (ii) spending or allocating work credits/portable assessment credits totaling C$4 million over the same four-year period. Thereafter, we have a further right to earn an additional 19% interest in the property by (i) making cash payments or issuing shares of Centerra, in each case, worth C$400,000 to JAMA, and; (ii) spending or allocating work credits/portable assessment credits totaling C$3 million over a three-year period from exercising this second option. Thereafter in both cases (whether the second option right is exercised or not), the parties would fund the exploration and development of the applicable property proportionally to their respective interests.

USA – Oakley Property

We entered into an option agreement with Otis Gold Corp (“Otis”) made as of the 26th of February 2020 for the Oakley property located in Idaho, USA. Pursuant to the option agreement, we have the right to earn a 51% interest in the Oakley property by making payments to Otis in the aggregate amount of $250,000 over a three-year period from the date of the agreement, and by spending a total of $4,500,000 on the Oakley property over the same three-year period. Thereafter, we would have a further right to earn an additional 19% by spending an additional $3 million within a further three-year period, and making a payment to Otis of $300,000. Thereafter in both cases (whether the second option right is exercised or not), the parties would fund the exploration and development of the applicable property proportionally to their respective interests.

Turkey – Tepköy Property

We entered into an exploration and share purchase option agreement dated the 7th of October 2019 with H.T.O. Mineral Madencilik Nak. Loj. İns Sağ Tar. İth. San. Tic. Ltd. Şti (“HTO”) and certain shareholders thereof in respect of the Tepköy property in the Niğde Province, Turkey. Pursuant to this agreement, we have the right to acquire 100% of the property
for a period of 8 years from the date of the agreement, which option will automatically extend for further 1 year period provided that the Company is working in good faith on exploration activities of the property. If we elect to exercise the option, we will then enter into a share purchase agreement for the property against consideration of $15 million and a 1% net smelter royalty. During the option term, we would be the project operator and have the sole and exclusive right to manage exploration activities. We would also be responsible for maintaining the property in good standing.

**Mexico – Tenoriba Property**

We entered into an option agreement with Mammoth Resources Corp. ("Mammoth") on December 17, 2018 for the Tenoriba property in the Province of Chihuahua, Mexico. Mammoth itself had optioned the Tenoriba property from Mr. Rodolfo Chavez Rocha and Minera Ches Mex S. de R.L. de C.V. (collectively, the "Original Owners"). We have the right to earn a 51% interest in the property by spending a total of $5 million by the third anniversary of the date of the agreement, and making rental payments to Mammoth in the amount of $350,000 on or before the fourth anniversary of the agreement date. Thereafter, we would have a further right to earn an additional 19% by spending an additional $4 million within a further three-year period, and making annual rental payments to Mammoth totaling $550,000 or issuing common shares of Centerra for such amount (at Centerra’s option). After earn-in, the interests of the parties would be subject to a 2% NSR royalty in favour of the Original Owners. Thereafter in both cases (whether the second option right is exercised or not), the parties would fund the exploration and development of the applicable property proportionally to their respective interests.

**Mexico – Los Cumbras Property**

We entered into an exploration and promise of assignment or rights agreement made as of the 14th day of June 2019 with 3 individuals resident ("Optionors") in Mexico for the Los Cumbras property (formerly known as the La India II property) in the Province of Sonora, Mexico. Pursuant to the agreement, we have the right to purchase 100% of the property by (i) making payments to the Optionors totaling $2.89 million (plus value added tax) over a period of 5.5 years from the date of the agreement; and (ii) incurring exploration expenditures on the property totaling $5 million over a 4-year period from the date of the agreement. If we fulfill these conditions, we will own an 100% interest in the property, subject to a 2% net smelter royalty which will be granted to the Optionors (on a pro rata basis relative to their interest in the property).

### 3.4 Molybdenum Properties

**Endako Mine**

The Endako Mine is an open-pit molybdenum mine, concentrator and roaster located approximately 161 km west of Prince George, British Columbia, Canada. The property currently comprises a contiguous group of 60 mineral tenures containing 34 claims and 26 leases, covering approximately 12,835.11 ha. Annual rental payment on the 26 mine lease titles is typically paid in installments in May, August, and November.

The Endako Mine is operated as a joint venture between Thompson Creek which holds a 75% interest, and Sojitz, which holds the remaining 25% interest. The Endako Joint Venture was formed on June 12, 1997 pursuant to the terms of the Endako Mine Joint Venture Agreement. We are the manager of the Endako Mine Joint Venture with overall management responsibility for operations.

Endako Mine deposit is divided into four named areas: Northwest, Denak West, Denak East and Endako. Mining has occurred in the Endako and both Denak areas. The Northwest zone is yet to be put in operation. There are no royalties, back-in rights, encumbrances on title or other agreements, other than the agreement governing the Endako Mine Joint Venture. The infrastructure at Endako Mine includes a 55,000 ton per day concentrator, a 35,000 to 40,000 pound per day roaster (and an additional non-operating roaster), tailings and reclaim water ponds, a crushing plant, waste rock dumps, an administrative building, a truck shop/warehouse, a change house, a first aid station, a laboratory, a garage and other shops. The power supply of the site is provided by a 9 km, 69 kV power line owned by B.C. Hydro from a nearby substation. Water for the milling process is re-circulated from the tailings facility while make-up water is pumped from Francois Lake, located nearby.

Starting in 2018, we initiated a review of our long-term water treatment options at the Endako Mine, as a result of ongoing discussions concerning mine reclamation obligations among regulatory and industry bodies in British Columbia. These discussions are ongoing. During 2019, we updated our technical and environmental studies for the Endako Mine. Final reports were delivery in early 2020 and we are currently reviewing the reports and working with regulators and relevant Indigenous groups to evaluate the long term water management requirements for the Endako Mine. Following this review, an increase to Endako’s asset retirement obligations may be required.
The Endako Mine has been on care and maintenance effective July 1, 2015 due to the continued weakness in the molybdenum market. As of December 31, 2019, there are approximately 10 employees at Endako Mine for care and maintenance activities.

**Thompson Creek Mine**

TC Mine is an open-pit molybdenum mine and concentrator located approximately 48 km southwest of the town of Challis, Idaho, USA. The TC Mine land holdings comprise of 1,589 patented and unpatented lode, mill site and placer claims along with fee owned property totaling approximately 9,955 ha.

All current resources are located on patented mineral claims and are not expected to be subject to any US federal government royalties that could be enacted in the future. Approximately 50% of the mineral claims are located within the boundaries of the Salmon-Challis National Forest, with the remaining 50% located within the perimeter of land managed by the United States Bureau of Land Management.

TC Mine operates a commercial molybdenum beneficiation circuit to treat molybdenum concentrates to supplement the concentrate feed sourced directly for the Langeloth Facility. This beneficiation process at TC Mine allows the Company to process high copper molybdenum concentrate purchased from third parties, which is then transported to Langeloth for processing. TC Mine has been on care and maintenance since December 2014 due to declines in the molybdenum prices.

As at December 31, 2019, TC Mine had 53 employees for care and maintenance, and beneficiation process activities.

**Langeloth Metallurgical Facility**

Our wholly-owned Langeloth Facility is located in Langeloth, Pennsylvania, approximately 40 km west of Pittsburgh, on land we own in fee simple. The facility receives molybdenum concentrate from third party producers that is either purchased for processing and re-sale or that is toll converted to finished products for third parties. The facility produces and sells ammonium perrhenate and rhenium metal pellets as well as sulfuric acid all recovered as by-products of processing the molybdenum disulfide. In addition, the Langeloth Facility calcines other metal containing materials from various third-party operations.

Up to four multiple-hearth furnaces are used for the conversion (roasting) of molybdenum concentrate into technical grade molybdenum oxide. These roasters have the annual capacity to process 36 million pounds of molybdenum contained in concentrates. The molybdenum oxide can be sold as a finished product to customers or can be upgraded at the facility to molybdenum oxide briquettes, pure molybdenum trioxide powder or various sizes of ferromolybdenum products. Additional furnaces are used to calcine non-hazardous metal containing materials that contain metals other than molybdenum.

As at December 31, 2019, the Langeloth Facility had 123 employees. The Company notes that unionized staff at its Langeloth facility went on economic strike on September 9, 2019 following the expiration of the site's collective bargaining agreement earlier in the year. As of December 31, 2019, no significant disruption or impact to operations at Langeloth or deliveries to customers resulted from the economic strike, nor are any expected to result in 2020.
4. GOVERNANCE

4.1 Directors and Officers

The following tables set out the directors and executive officers of Centerra Gold Inc. as at December 31, 2019. The term of office for each of the directors will expire at the time of our next annual shareholders meeting, scheduled for May 1, 2020. Each of the directors on the Board as of December 31, 2019 was elected to his or her present term as a director by our shareholders at the annual meeting of our shareholders held on May 1, 2019.

### Directors

<table>
<thead>
<tr>
<th><strong>DIRECTOR</strong></th>
<th><strong>BOARD COMMITTEES</strong></th>
<th><strong>PRINCIPAL OCCUPATION OR EMPLOYMENT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RICHARD W. CONNOR</strong>&lt;br&gt;Columbine Valley, Colorado, USA&lt;br&gt;70 years old&lt;br&gt;Director since June 5, 2012</td>
<td>Audit (Chair)&lt;br&gt;Risk&lt;br&gt;Human Resources and Compensation&lt;br&gt;Special</td>
<td>Corporate Director&lt;br&gt;Partner with KPMG LLP from 1980 to 2009&lt;br&gt;Other Public Company Directorships (current)&lt;br&gt;Zayo Group Holdings Inc.</td>
</tr>
<tr>
<td><strong>DUSHEN KASENOV</strong>&lt;br&gt;Bishkek, Kyrgyz Republic&lt;br&gt;62 years old&lt;br&gt;Director since May 1, 2019</td>
<td>Risk&lt;br&gt;Sustainable Operations</td>
<td>Retired Consultant&lt;br&gt;Member of the management committee of Kumtor Gold Company from 2015 to 2019&lt;br&gt;Other Public Company Directorships (current)&lt;br&gt;None</td>
</tr>
<tr>
<td><strong>MAKSAT KOBONBAEV</strong>&lt;br&gt;Bishkek, Kyrgyz Republic&lt;br&gt;41 years old&lt;br&gt;Director since May 1, 2019</td>
<td>Risk&lt;br&gt;Sustainable Operations</td>
<td>Corporate Director&lt;br&gt;Deputy General Director and Advisor to General Director for a subsidiary of the Australian gold developer Manas Resources from 2012 to 2018.&lt;br&gt;Other Public Company Directorships (current)&lt;br&gt;None</td>
</tr>
<tr>
<td><strong>STEPHEN A. LANG</strong>(1)&lt;br&gt;Columbia, Missouri, USA&lt;br&gt;64 years old&lt;br&gt;Director since June 17, 2008</td>
<td>Human Resources and Compensation&lt;br&gt;Nominating and Corporate Governance&lt;br&gt;Risk&lt;br&gt;Sustainable Operations</td>
<td>Chair of the Board of Directors of Centerra from May 2012 to October 2019&lt;br&gt;President and CEO of Centerra from June 2008 to May 2012&lt;br&gt;Vice President and Chief Operating Officer of Centerra from December 2007 to June 2008&lt;br&gt;Other Public Company Directorships (current)&lt;br&gt;Alio Gold Corp.&lt;br&gt;Bear Creek Mining Corporation&lt;br&gt;International Tower Hill Mines Ltd.&lt;br&gt;Hudbay Minerals Inc.</td>
</tr>
<tr>
<td>Director</td>
<td>Board Committees</td>
<td>Principal Occupation or Employment</td>
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<tr>
<td><strong>ASKAR OSKOMBAEV</strong>&lt;br&gt;Bishkek, Kyrgyz Republic&lt;br&gt;41 years old&lt;br&gt;Director since May 1, 2018</td>
<td>Risk&lt;br&gt;Sustainable Operations</td>
<td>Chairman of the board of directors of Kyrgyzaltyn JSC since July 2016.&lt;br&gt;Advisor to the Kyrgyz Republic Prime Minister, Head of Analytical Support Group from November 2015 to June 2016.&lt;br&gt;Expert on monitoring and evaluation, Secretariat of the National Council on Sustainable Development under the President of the Kyrgyz Republic, UNDP project from November 2014 to February 2015.&lt;br&gt;Expert on anti-corruption policy, working group of the President of the Kyrgyz Republic, OSCE project from May to September 2014.&lt;br&gt;Adviser to the Prime Minister of the Kyrgyz Republic from November 2012 to April 2014.&lt;br&gt;Other Public Company Directorships (current)&lt;br&gt;None</td>
</tr>
<tr>
<td><strong>MICHAEL S. PARRETT</strong>&lt;br&gt;Richmond Hill, Ontario, Canada&lt;br&gt;68 years old&lt;br&gt;Director since May 8, 2014</td>
<td>Human Resources and Compensation&lt;br&gt;Audit&lt;br&gt;Nominating and Corporate Governance</td>
<td>Chair of the board of directors of Centerra since October 2019&lt;br&gt;Independent Consultant and Corporate Director.&lt;br&gt;Director, Stillwater Mining Company from 2009 to 2017&lt;br&gt;Director, Pengrowth Energy Corporation from 2004 to 2016&lt;br&gt;Director of Gabriel Resources Limited from 2003 to 2010 (including Chairman from 2005-2010)&lt;br&gt;Other Public Company Directorships (current)&lt;br&gt;None</td>
</tr>
<tr>
<td><strong>JACQUES PERRON</strong>&lt;br&gt;Denver, Colorado, USA&lt;br&gt;58 years old&lt;br&gt;Director since October 20, 2016</td>
<td>Risk (Chair)&lt;br&gt;Sustainable Operations</td>
<td>Corporate Director&lt;br&gt;CEO of Thompson Creek from October 2013 to October 2016 (when we acquired Thompson Creek)&lt;br&gt;President and CEO of St. Andrew Goldfields Ltd. from 2007 to 2013&lt;br&gt;Other Public Company Directorships (current)&lt;br&gt;Victoria Gold Corp.&lt;br&gt;Aquila Resources Inc.&lt;br&gt;TMAC Resources Inc.</td>
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<tr>
<td><strong>SCOTT G. PERRY</strong>&lt;br&gt;Toronto, Ontario, Canada&lt;br&gt;43 years old&lt;br&gt;Director since December 31, 2015</td>
<td>None</td>
<td>President and CEO of Centerra Gold Inc. since January 1, 2018&lt;br&gt;CEO of Centerra Gold Inc. since November 1, 2015&lt;br&gt;CEO and Director of AuRico Gold from September 2012 to October 2015&lt;br&gt;Executive Vice President and CFO of AuRico Gold Inc. from February 2008 to September 2012.&lt;br&gt;Other Public Company Directorships (current)&lt;br&gt;None</td>
</tr>
<tr>
<td><strong>DIRECTOR</strong></td>
<td><strong>BOARD COMMITTEES</strong></td>
<td><strong>PRINCIPAL OCCUPATION OR EMPLOYMENT</strong></td>
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<tr>
<td><strong>SHERYL K. PRESSLER</strong>&lt;br&gt;Atlanta, Georgia, USA&lt;br&gt;69 years old&lt;br&gt;Director since May 7, 2008</td>
<td>Nominating and Corporate Governance (Chair)&lt;br&gt;Audit&lt;br&gt;Sustainable Operations&lt;br&gt;Special</td>
<td>Investment and Strategy Consultant&lt;br&gt;Director of Stillwater Mining Company from May 2002 to May 2013&lt;br&gt;CEO of Lending Lease Real Estate Investment – US from 2000 to 2001&lt;br&gt;Other Public Company Directorship (current) None</td>
</tr>
<tr>
<td><strong>BRUCE V. WALTER</strong>&lt;br&gt;Toronto, Ontario, Canada&lt;br&gt;62 years old&lt;br&gt;Director since May 7, 2008</td>
<td>Sustainable Operations (Chair)&lt;br&gt;Special (Chair)</td>
<td>Chairman of Nunavut Iron Ore, Inc.&lt;br&gt;Vice Chair of Centerra Gold Inc. since June 2008&lt;br&gt;Director and officer of Dynatec Corporation from 2002 to 2007 (Vice Chairman from 2002 to 2005 and President and CEO from 2005 to 2007)&lt;br&gt;Other Public Company Directorships (current) Westaim Corporation</td>
</tr>
<tr>
<td><strong>SUSAN L. YURKOVICH</strong>&lt;br&gt;Vancouver, British Columbia, Canada&lt;br&gt;54 years old&lt;br&gt;Director since May 1, 2018</td>
<td>Human Resources and Compensation (Chair)&lt;br&gt;Nominating and Corporate Governance&lt;br&gt;Sustainable Operations</td>
<td>President and CEO of the British Columbia Council of Forest Industries and President of British Columbia Lumber Trade Council&lt;br&gt;Executive Vice-President, British Columbia Hydro from 2006 to 2015&lt;br&gt;Other Public Company Directorships (current) None</td>
</tr>
</tbody>
</table>

(1) Mr. Lang is not standing for re-election at the Company’s next annual general meeting of shareholders scheduled for May 1, 2020.

**Executive Officers**

<table>
<thead>
<tr>
<th><strong>OFFICER</strong></th>
<th><strong>PRINCIPAL OCCUPATION IN PAST 5 YEARS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SCOTT G. PERRY</strong>&lt;br&gt;President &amp; Chief Executive Officer&lt;br&gt;Toronto, Ontario, Canada&lt;br&gt;43 years old</td>
<td>CEO of Centerra Gold Inc. since November 1, 2015 and President and CEO as of January 1, 2018.&lt;br&gt;CEO and Director of AuRico Gold Inc. from September 2012 to October 2015.&lt;br&gt;Executive Vice President and CFO of AuRico Gold Inc. from February 2008 to September 2012.</td>
</tr>
<tr>
<td><strong>DARREN J. MILLMAN</strong>&lt;br&gt;Vice President and Chief Financial Officer&lt;br&gt;Toronto, Ontario, Canada&lt;br&gt;42 years old</td>
<td>Vice President and CFO of Centerra since April 1, 2016.&lt;br&gt;Vice President Finance and Treasurer of Centerra from January 2015 to March 2016.&lt;br&gt;Treasurer of Centerra from January 2013 to January 2015.&lt;br&gt;General Manager Finance and Company Secretary of Ivanhoe Australia from July 2007 to December 2012.</td>
</tr>
<tr>
<td><strong>GORDON D. REID</strong>&lt;br&gt;Vice President and Chief Operating Officer&lt;br&gt;Oakville, Ontario, Canada&lt;br&gt;62 years old</td>
<td>Vice President and Chief Operating Officer of Centerra from January 2013 to retirement on December 31, 2019.&lt;br&gt;Vice President, Operations of Centerra from March 2009 to January 2013.&lt;br&gt;President, Kumtor Operating Company from 2007 to March 2009.</td>
</tr>
<tr>
<td><strong>DENNIS C. KWONG</strong>&lt;br&gt;Vice President, Business Development and Exploration&lt;br&gt;Toronto, Ontario, Canada&lt;br&gt;49 years old</td>
<td>Vice President, Business Development and Exploration of Centerra since January 2016.&lt;br&gt;Vice President, Business Development of Centerra since October 2008 to 2015.</td>
</tr>
</tbody>
</table>
Yousef Rehman  
Vice President, General Counsel & Corporate Secretary  
Burlington, Ontario, Canada  
38 years old

Vice President, General Counsel & Corporate Secretary of Centerra since January 1, 2018.  
Senior Legal Counsel of Centerra from 2014 to 2017.

Daniel Desjardins  
Vice President and Chief Operating Officer  
Toronto, Ontario, Canada  
57 years old

Vice President and Chief Operating Officer of Centerra as of January 1, 2020, following the retirement of Gordon Reid.  
President, Kumtor Gold Company from January 2015 to December 2019.

Claudia D’Orazio  
Vice President, Chief Human Resources Officer  
Toronto, Ontario, Canada  
51 years old

Vice President, Chief Human Resources Officer as of February 10, 2020.  
Vice President, Human Resources from 2017 to 2020 and Vice President, Compliance and Risk from 2012 to 2017 at Pembina Pipeline Corporation.

The following persons have become officers of Centerra in 2020:

Other Information About Our Directors and Officers

Share Ownership

As of March 24, 2020, our directors and executive officers (as a group) beneficially own, control or direct, or exercise control or direction over, directly or indirectly, 461,270 Common Shares representing approximately 0.16% of our total outstanding Common Shares (on a non-diluted basis).

Cease Trade Orders

To our knowledge as of the date of this AIF, no director or executive officer of Centerra is or has been in the last ten (10) years a director, CEO or CFO of any company that:

- was subject to an order that was issued while the director or executive officer was acting in the capacity as director, CEO or CFO, or
- was subject to an order that was issued after the director or executive officer ceased to be a director, CEO or CFO and which resulted from an event that occurred while that person was acting in the capacity as director, CEO or CFO.

For the purposes of the foregoing, order means (i) a cease trade order, (ii) an order similar to a cease trade order, or (iii) an order that denied the relevant company access to any exemption under securities legislation, in effect for a period of more than 30 consecutive days.

Bankruptcy and Insolvency

Other than as set out below, to our knowledge as of the date of this AIF, no director or executive officer of Centerra, or a shareholder holding a sufficient number of securities of Centerra to affect materially the control of Centerra:

- is or has been within the last ten (10) years a director or executive officer of any company that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets, or
- has within the last ten (10) years become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.
Mr. Parrett was a director of Mongolia Minerals Corporation (a Canadian private company involved in mining investments in Mongolia) which filed for protection under the Companies’ Creditors Arrangement Act in June, 2014. The Companies’ Creditors Arrangement Act proceedings were terminated in February 2015 and Mr. Parrett resigned.

Mr. Lang was a director Allied Nevada Gold Corp. which together with certain of its domestic direct and indirect subsidiaries, filed voluntary petitions for relief under chapter 11 of the U.S. Bankruptcy Code in the United States Bankruptcy Court for the District of Delaware on March 10, 2015. The Company changed its name to Hycroft Mining Corporation and emerged from Chapter 11 in October 2015.

Mr. Perry was a director of Lachlan Star Limited, a mining company based in Australia. He ceased being a director in October 2014. In February 2015, Lachlan Star Limited entered into voluntary administration.

**Penalties and Other Sanctions**

To our knowledge as of the date of this AIF, no director or executive officer of Centerra, or a shareholder holding a sufficient number of securities of Centerra to affect materially the control of Centerra, has been the subject of:

- 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
- 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.

**Conflicts of Interest**

Some of our directors also serve as directors and/or officers of other companies involved in natural resource exploration, development and production and consequently there exists the possibility for such directors to be in a position of conflict.

**4.2 Committees**

The Board and management believe that sound and effective corporate governance is essential to our performance. We have adopted certain practices and procedures to ensure that effective corporate governance practices are followed and that the Board functions independently of management. The Board carries out its responsibilities directly and through the following standing committees:

- Audit Committee
- Human Resources and Compensation Committee
- Nominating and Corporate Governance Committee
- Sustainable Operations Committee
- Risk Committee

The Board has also formed a Special Committee who mandate includes, among other things, overseeing the Company’s interactions with the Kyrgyz Government and Kyrgyzaltyn.

A discussion of our approach to corporate governance and other committees can be found in our management information circular prepared in connection with our most recent annual meeting of shareholders.

**Audit Committee**

The Audit Committee is responsible for assisting the Board in fulfilling its oversight responsibilities in relation to the following:

- the integrity of our financial statements
- our compliance with legal and regulatory requirements (other than with respect to health, safety and the environment)
- compliance with our Code of Ethics for employees and our international business conduct policy (anti-corruption policy)
- the qualifications and independence of our external auditor
- the design and implementation of internal controls over financial reporting and disclosure controls
• management of financial risk delegated by the Board
• related party transactions
• the performance of our internal audit function and independent auditor
• any additional matters delegated to the Audit Committee by the Board

Audit Committee Charter
A copy of the Audit Committee’s charter is attached as Schedule A to this AIF and is also available on our website at www.centerragold.com.

Composition of the Audit Committee
The Audit Committee is comprised of Richard W. Connor (Chair), Michael S. Parrett, and Sheryl K. Pressler. Each member of the Audit Committee is independent and financially literate within the meaning of National Instrument 52-110 – Audit Committees of the Canadian Securities Administrators.

Relevant educational experience
Richard W. Connor, a director and Chair of our Audit Committee, has over 25 years of experience as an audit partner with KPMG LLP in the United States, principally for publicly traded clients in a variety of industries, including Energy and Mining, and Media and Telecommunications. Mr. Connor retired from KPMG LLP in 2009, where he served as the Office Managing Partner of the KPMG Denver Office from 1996 to 2008. Mr. Connor was elected to the partnership in 1980 and was appointed to the firm’s SEC Reviewing Partners Committee in 1987. Mr. Connor earned his BS degree in Accounting from the University of Colorado. He is a member of the American Institute of Certified Public Accountants and the Colorado Society of Certified Public Accountants. Mr. Connor currently serves on the board of directors of Zayo Group LLC, a provider of bandwidth infrastructure and colocation services headquartered in Boulder, Colorado.

Michael S. Parrett, a director, is currently an independent consultant and corporate director. He served on the boards of Stillwater Mining Company from 2009 to 2017, and Gabriel Resources Limited from 2003 to 2010 (including as Chairman from 2005 to 2010), Pengrowth Energy Corporation from 2004 to 2016, and of Fording Canadian Coal Trust from 2003 to 2008. Previously, Mr. Parrett was the CFO and the President of Rio Algom Limited and, prior to that, CFO of Falconbridge Limited. Mr. Parrett is a Chartered Professional Accountant and received his Bachelor of Arts degree in Economics from York University.

Sheryl K. Pressler, a director, is currently an investment and strategy consultant in Atlanta, Georgia. From 2000 to 2001, she served as CEO of Lend Lease Real Estate Investments-United States. From 1994 to 2000, she served as Chief Investment Officer of California Public Employees’ Retirement System. Prior thereto, she was responsible for the investment management of the retirement funds for the McDonnell Douglas Corporation. Ms. Pressler received a Bachelor of Arts degree from Webster University and a Master of Business Administration degree from Washington University. Ms. Pressler served on the board of directors of Stillwater Mining Company from 2002 until 2013.

External Audit Pre-Approval Procedures
As part of our corporate governance practices, under our Audit Committee charter, the Audit Committee is required to pre-approve the audit and non-audit services performed by external auditors in accordance with applicable law.
 Fees Paid to External Auditors

Audit, tax and other fees billed by our external auditor, KPMG LLP, in respect of the years ended December 31, 2019 and December 31, 2018 are set out below.

<table>
<thead>
<tr>
<th></th>
<th>2018 ($)</th>
<th>% total fees(4) (%)</th>
<th>2019 ($)</th>
<th>% of total fees(4) (%)</th>
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<td>All other fees(3)</td>
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<td><strong>1,234,615</strong></td>
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</tr>
</tbody>
</table>

Notes:
1. Audit related fees in 2018 and 2019 included interim reviews of the consolidated financial statements and accounting assistance work.
2. Tax fees comprise amounts billed for transfer pricing advisory services, tax compliance and tax advisory services.
3. In 2018, the “all other fees” included advisory services in connection with the integration of AuRico. All non-audit services to be provided by KPMG LLP must be pre-approved by the Audit Committee.
4. Numbers do not add to 100% due to rounding.

4.3 Interest of Management and Others in Material Transactions

A description of the material transactions entered into during the three years prior to the date of this AIF or during the current financial year with any director, executive officer or shareholder of Centerra or any associate or affiliate of such person that has materially affected or is reasonably expected to materially affect Centerra can be found under the heading “Management’s Discussion and Analysis – Related Party Transactions” in our MD&A for the year ended December 31, 2019.
5. **RISK FACTORS**

Below are the risk factors that we believe can have a material effect on the profitability, future cash flow, earnings, results of operations, stated reserves and financial condition of the Company. If any event arising from these risks occurs, the Company’s business, prospects, financial condition, results of operations or cash flows could be adversely affected, the trading price of Centerra’s common shares could decline and all or part of any investment may be lost.

You should note that the following is not, however, a complete list of the potential risks we face. Additional risks and uncertainties not currently known to us, or that are currently deemed immaterial, may also materially and adversely affect the Company’s business operations, prospects, financial condition, results of operations, or cash flows.

5.1 **Strategic Risks**

**Country, Political & Regulatory**

Centerra's operations and mineral resources are subject to country political and regulatory risks

Centerra’s mining operations and exploration activities are affected in varying degrees by the political stability and government regulations relating to investment, corporate activity, and the mining business in the countries in which it operates, explores and develops properties. Operations may also be affected in varying degrees by terrorism; military conflict or repression; crime; populism; activism; labour unrest; attempts to renegotiate or nullify existing concessions, licenses, permits and contracts; unstable or unreliable legal systems; changes in fiscal regimes including taxation, and other risks arising out of sovereignty issues.

Governments have entered into contracts with Centerra and/or granted mining claims, permits, licenses or concessions that enable us to conduct operations or exploration and development activities. Notwithstanding these arrangements, Centerra’s ability to conduct operations, exploration and/or development activities at any of its properties is subject to obtaining and/or renewing permits or concessions, changes in laws or government regulations or shifts in political attitudes beyond its control.

A significant portion of the Company’s gold production and its mineral reserves and mineral resources are derived from assets located in the Kyrgyz Republic and Turkey, countries that have experienced political difficulties in recent years. There continues to be a risk of future political instability in these jurisdictions.

The Company does not currently carry political risk insurance covering its investments in any of the countries where it operates. From time to time, it assesses the costs and benefits of obtaining and maintaining such insurance. There can be no assurance that, if the Company chose to obtain it, political risk insurance would be available to it, or that particular losses the Company may suffer with respect to its foreign investments will be covered by any insurance that we may obtain in the future.

**Resource nationalism could adversely impact Centerra’s business**

Companies in the mining and metals sector continue to be targeted to raise government revenue, particularly as governments struggle with deficits and concerns over the effects of depressed economies. Many governments are continually assessing the fiscal terms of the economic rent for mining companies to exploit resources in their countries. Numerous countries, including the Kyrgyz Republic and Turkey have in the past introduced changes to their respective mining regimes that reflect increased government control or participation in the mining sector, including, but not limited to, changes of laws or governmental regulations affecting foreign ownership, taxation and royalties, labour mine safety, exchange rates, exchange controls, permitting and licensing of exploration, development and production, land use restrictions, annual fees to maintain mineral properties in good standing, price controls, export controls, export and import duties, restrictions on repatriation of income or return of capital, requirements for local processing of mineral products, environmental protection, as well as requirements for employment of local staff or contractors, and contributions to infrastructure and social support systems. The Company’s operations may be affected in varying degrees by such laws and government regulations.

There can be no assurance that industries deemed of national or strategic importance like mineral production will not be nationalized. Government policy may change to discourage foreign investment; nationalization of mining industries may occur; or other government limitations, restrictions or requirements not currently foreseen may be implemented. There can be no assurance that the Company’s assets will not be subject to nationalization, expropriation or confiscation, whether legitimate or not, by any authority or body. While there are often provisions for compensation and reimbursement of losses to investors under such circumstances, there is no assurance that such provisions would effectively restore the value of the Company’s original investment or that such restoration would occur within a reasonable timeframe. There also can be no assurance that the laws in these countries protecting foreign investments
will not be amended or abolished or that existing laws will be enforced or interpreted to provide adequate protection against any or all of the risks described above. Furthermore, there can be no assurance that the agreements the Company has with the governments of these countries will prove to be enforceable or provide adequate protection against any or all of the risks described above.

**Centerra’s ability to make payments depends on the cash flows of its subsidiaries**

Centerra conducts substantially all of its operations through subsidiaries, some of which are incorporated outside North America. The Company has no direct operations and no significant assets other than the shares of its subsidiaries. Therefore, the Company is dependent on the cash flows of its subsidiaries to meet its obligations, including payment of principal and interest on any debt it incurs or dividends. The ability of Centerra’s subsidiaries to provide the parent company with payments may be constrained by, among others, the following factors: (i) the cash flows generated by operations, investment activities and financing activities; (ii) the level of taxation and royalties, particularly corporate profits and withholding taxes, in the jurisdiction in which they operate and in Canada; and (iii) the introduction of exchange controls, repatriation restrictions (including those that may be ordered by courts) or the availability of hard currency to be repatriated.

**Changes in, or more aggressive enforcement of, laws, regulations and government practices could adversely impact Centerra’s business**

Mining operations, development activities, and exploration activities are subject to extensive laws and regulations, both in the countries where mining operations and exploration and development activities are conducted and in the mining company’s home jurisdiction. Centerra’s lenders may also impose similar requirements to Centerra’s operations. These regulations relate to production, development, exploration, exports, imports, taxes and royalties, labour standards, suppliers and contractors, occupational health, waste disposal, protection and remediation of the environment, mine decommissioning and reclamation, mine safety, toxic substances, transportation safety and emergency response, social responsibilities and sustainability, and other matters.

Compliance with these laws, regulations and lender requirements increases the costs of exploring, drilling, developing, constructing, operating and closing mines and other facilities. It is possible that the costs, delays, access to land, water, and power, and other effects associated with these laws and regulations may impact the Company’s decision as to whether to continue with operating its existing mines, ore processing and other facilities, or whether to proceed with exploration or development of properties. Since legal requirements change frequently, are subject to interpretation and may be enforced to varying degrees in practice, the Company is unable to predict the ultimate cost of compliance with these requirements or their effect on operations.

In particular, there has been a global increase in the level of local community concerns in respect of the environmental footprint of mining operations as well as concerns over the management of water resources, and mine closure plans. This may lead to governments and other stakeholders becoming increasing rigorous in their laws, regulations or requirements.

If the laws, regulations or lender requirements relating to the Company’s operations were to change, or the enforcement of such requirements were to become more rigorous, the Company could be required to incur significant capital and operating expenditures to comply, which could have a material adverse effect on its financial position and its ability to achieve operating and development targets. Changes to laws and regulations may also impact the Company’s reserves.

**Community activism may influence laws and regulations, result in increased contributory demands, or in business interruption**

Slow economic development in some of the countries in which the Company operates has resulted in an increase in community activism and expectations by local governments for resource companies to increase their contributions to local communities. Heightened global concern for the environment and water in particular, as a result of both climate change impacts as well as following certain significant industrial accidents, has led to increased scrutiny of mining operations, review of laws aimed at environmental protection, and delays in the issuance of required permits and licenses for development and operation activities.

**The Company's planned activities are dependent upon receipt and/or renewal of numerous permits and licenses**

A number of approvals, licenses and permits are required for various aspects of exploration, mine development, and operations. This includes licenses and permits, which include or cover without limitation air quality, water quality, water rights, dam safety, emergency preparedness, hazardous materials (including the transportation thereof), waste rock management, solid waste disposal and tailings operations. Changes in a mine's design, production rates, quality of material mined, milling processes or circuits, and many other matters often require submission of the proposed changes for agency approval prior to implementation (including consultations with potentially impacted Indigenous Groups), and
these may not be obtained. In addition, changes in operating conditions beyond our control, changes in agency policy and federal, provincial and state laws, litigation, community opposition or geopolitical considerations could further affect the successful permitting of operations.

Obtaining and maintaining the various permits for the Company’s exploration, mine development, and operations is complex, time-consuming and expensive. The Company has in place processes and personnel designated to obtain all necessary permits and licenses. However, its efforts are contingent upon many variables outside of its control. The Company cannot be certain that all necessary permits and licenses will be maintained or obtained on acceptable terms or in a timely manner. Any failure to obtain or maintain permits or licenses, even if inadvertent, could result in the interruption of production, exploration or development, or material fines, penalties or other liabilities.

The Company’s relationships with local communities may affect our existing operations and development projects

Having positive and constructive relationship with the communities in which the Company operates is critical to ensure the future success of our existing operations and the construction and development of our development projects. There is an increasing level of public concern relating to the real and perceived effect of mining activities on the environment and on communities impacted by such activities. Adverse publicity relating to the mining industry or the Company could have an adverse effect on the Company’s reputation or financial condition and may impact its relationship with the communities in which it operates. Reputation loss may also result in decreased investor confidence, increased challenges in developing and maintaining community relations and serve as an impediment to the Company’s overall ability to advance its projects, which could have a material adverse impact on the Company. While the Company is committed to operating in a socially responsible manner, there is no guarantee that its efforts in this regard will mitigate this potential risk.

The inability of the Company to maintain positive relationships with local communities may also result in additional obstacles to permitting, increased legal challenges, or other disruptive operational issues at any of its operating mines, and could have a significant adverse impact on the Company’s ability to generate cash flow, with a corresponding adverse impact to the Company’s share price and financial condition.

Indigenous Claims and Consultation Issues

Certain of Centerra’s properties are located in areas where various Indigenous groups have asserted rights. The interests of such groups and rights as well as related consultation issues may impact the Company’s ability to pursue exploration, development and mining at certain of its properties. Governments in many jurisdictions must consult with, or require the Company to consult with, potentially impacted Indigenous groups with respect to grants of mineral rights, the issuance or amendment of project authorizations, and the grant of necessary licenses and permits. Consultation and other rights of Indigenous groups may require accommodation including undertakings regarding employment, procurement opportunities, royalty payments and other matters. This may affect the Company’s ability to acquire within a reasonable time frame effective mineral titles, permits or licenses in these jurisdictions in which title or other rights are claimed by Indigenous peoples, and may affect the timetable and costs of development and operation of mineral properties in these jurisdictions, particularly if the Company is required to, or chooses to, enter into community development, impact benefits agreements, or other similar agreements with potentially impacted communities. These legal requirements may also affect the Company’s ability to expand or transfer existing operations or to develop new projects.

Legal and Other

Current and future litigation may impact the revenue and profits of the Company

The Company is from time to time involved in or subject to legal proceedings related to its business. These claims can be based on allegations of breach of contract, negligence, breach of statutory duty, public nuisance or private nuisance or otherwise in connection with our operations or investigations relating thereto. Such legal proceedings can be complex, costly, and highly disruptive to business operations by diverting the attention and energies of management and other key personnel. The assessment of the outcome of legal proceedings, including its potential liability, if any, is a highly subjective process that requires judgments about future events that are not within our control. The outcome of litigation, arbitration or other legal proceedings, including amounts ultimately received or paid upon judgment or settlement, may differ materially from management's outlook or estimates, including any amounts accrued in the financial statements.

Centerra’s properties may be subject to defects in title

Centerra has investigated its rights to explore and exploit all of its material properties, and to the best of its knowledge, those rights are in good standing. However, no assurance can be given that such rights will not be revoked or significantly
altered to its detriment. There can also be no assurance that the Company’s rights will not be challenged or impugned by third parties, including local governments and Indigenous groups. As a result, the Company may be constrained in its ability to operate its properties or unable to enforce its rights with respect to its properties.

Although the Company is not currently aware of any existing title uncertainties with respect to any of its properties except as discussed in the preceding paragraphs, there is no assurance that such uncertainties will not result in future losses or additional expenditures.

**Centerra may be unable to enforce its legal rights in certain circumstances**

In the event of a dispute arising at its foreign operations, the Company may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdiction of courts in Canada or in arbitration. The Company may also be hindered or prevented from enforcing its rights with respect to a governmental entity or instrumentality because of the doctrine of sovereign immunity.

The dispute resolution provisions of the Restated Investment Agreement for the Kumtor Mine stipulate that any dispute between the parties thereto is to be submitted to international arbitration. However, there can be no assurance that a particular governmental entity or instrumentality will either comply with the provisions of these or any other agreements or voluntarily submit to arbitration.

**Centerra’s largest shareholder is a state-owned entity of the Kyrgyz Government**

Centerra’s largest shareholder is Kyrgyzaltyn, which is a state-owned entity. Kyrgyzaltyn owns approximately 26% of the common shares of Centerra. Pursuant to the terms of the Restated Shareholders Agreement, to which Centerra and Kyrgyzaltyn are parties, Kyrgyzaltyn has two nominees on its board of directors. In addition, and in light of various considerations including the importance of the Kumtor Mine to Centerra, Centerra included in its proposed nominees for election at the most recent annual general shareholders’ meeting a third nominee of Kyrgyzaltyn who was elected to the Board.

There can be no assurance that the Kyrgyz Government, through its ownership and control of Kyrgyzaltyn, will not use its influence to materially change the direction of the Company either alone or in concert with third parties. Because the Kumtor Mine is located in the Kyrgyz Republic, the Kyrgyz Government’s interests may not align with those of the Company’s other shareholders.

This concentration of ownership may also have the effect of delaying or preventing a change in control of Centerra, which may deprive its shareholders of a control premium that might otherwise be offered in connection with such a change of control. The Company is aware that Kyrgyzaltyn has in the past received inquiries regarding the potential acquisition of some or all of its common shares in the Company and the sale by Kyrgyzaltyn of its shareholdings to a third party could result in a new purchasing shareholder obtaining a considerable interest in the Company. Should Kyrgyzaltyn sell some or all of its interest in Centerra, there can be no assurance that an offer would be made to the other shareholders of Centerra or that the interests of such a shareholder would be consistent with the plans of the Company or that such a sale would not decrease the value of the Common Shares.

**Centerra’s directors may have conflicts of interest**

Certain of our directors also serve as directors and/or officers of other companies involved in natural resource exploration, development and production and consequently there exists the possibility for such directors to be in a position of conflict.

**Centerra is subject to Anti-Corruption Legislation**

Centerra is subject to anti-corruption and anti-bribery laws, including Canada’s Corruption of Foreign Public Officials Act (the “Anti-Corruption Legislation”), which prohibits Centerra or any officer, director, employee or agent of Centerra or any shareholder of Centerra acting on its behalf from paying, offering to pay, or authorizing the payment of anything of value to any foreign government official, government staff member, political party, or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity. The Anti-Corruption Legislation also requires public companies to make and keep books and records that accurately and fairly reflect their transactions and to devise and maintain an adequate system of internal accounting controls. Centerra’s international activities create the risk of unauthorized payments or offers of payments by Centerra’s employees, consultants or agents, even though they may not always be subject to Centerra’s control. Centerra prohibits these practices and provides training and education to its employees and seeks confirmation of compliance from its consultants and agents. However, Centerra’s existing safeguards may prove to be less than effective, and Centerra’s employees, consultants and agents may engage in conduct for which Centerra might be held responsible. Any failure by us to adopt appropriate compliance procedures and ensure that Centerra’s employees and agents comply with the Anti-Corruption Legislation
and applicable laws and regulations in foreign jurisdictions could result in substantial penalties or restrictions on Centerra’s ability to conduct business in certain foreign jurisdictions.

**Strategy and Planning**

**Centerra’s future exploration and development activities may not be successful**

Exploration for and development of mineral properties involve significant financial risks and may be subject to political, technical and other risks that even a combination of careful evaluation, experience and knowledge may not eliminate. While the discovery of a mineral resource or mineral deposit may result in substantial rewards, few properties that are explored are ultimately developed into producing mines. The economic feasibility of development projects is based upon many factors, including the accuracy of mineral resource and reserve estimates; metallurgical recoveries; capital and operating cost estimates; government regulations relating to prices, taxes, royalties, land tenure, land use, water consumption, importing and exporting, environmental protection; and metal prices, which are highly volatile. Development projects are also subject to the successful completion of socio-environmental impact assessments, feasibility studies, issuance of necessary governmental permits and availability of adequate financing.

The Company’s ability to sustain or increase present levels of production is dependent on the successful acquisition or discovery and development of new orebodies and/or expansion of existing mining operations. The Company cannot ensure that its current exploration and development programs will result in profitable commercial mining operations or replacement of current production at existing mining operations with new mineral reserves. Also, substantial expenses may be incurred on exploration projects that are subsequently abandoned due to poor exploration results or the inability to define mineral reserves that can be mined economically.

It is also not unusual for new mining operations to experience unexpected problems during the start-up phase and to require more capital and time than anticipated.

**Centerra’s mineral reserves may not be replaced**

It the Company’s existing mineral reserves are not replaced either by the development or discovery of additional reserves and extension of the LOM at its operations, or through the acquisition or development of an additional producing mine, there could have an adverse impact on its future cash flows, earnings, results of operations and financial condition, including as a result of requirements to expend funds for reclamation and decommissioning. Although the Company is actively engaged in programs to increase mineral reserves, there can be no assurance that these programs will be successful.

**Centerra may experience difficulties with its partners**

As a result of having partners in the exploration, development and operation of the Company’s projects (Endako, Greenstone, and exploration option arrangements), the Company is subject to the risks normally associated with any partnership/joint venture arrangements. These risks include disagreement with a partner on how to explore, develop, operate and finance a project, possible litigation between us and a partner regarding matters in the agreement, and failure by the Company’s partners to abide by Centerra’s policies and procedures. This may be particularly the case when the Company is not the operator on the property.

**Centerra’s mineral reserve and resource estimates may be imprecise**

Mineral reserve and resource figures are estimates and no assurances can be given that the indicated levels of minerals will be produced or economically extracted, or that we will receive the price assumed in determining its mineral reserves. These estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry practices, and historical and forecasted costs. Valid estimates and the assumptions such estimates rely on may significantly change when new information becomes available or conditions change. While the Company believes that the mineral reserve and resource estimates included are well established and reflect management’s best estimates, by their nature mineral reserve and resource estimates are imprecise and depend, to a certain extent, upon analysis of drilling results and statistical inferences that may ultimately prove unreliable.

Furthermore, fluctuations in the market price of gold, copper and other commodities, exchange rates, as well as increased capital or production costs or reduced mining or metallurgical recovery rates may render mineral reserves uneconomic and may ultimately result in a reduction of reserves. The extent to which mineral resources may ultimately be reclassified as proven or probable mineral reserves is dependent upon the demonstration of their profitable recovery. The evaluation of mineral reserves or resources is always influenced by economic and technical factors, which may change over time.
No assurances can be given that any mineral resource estimate will ultimately be reclassified as proven or probable mineral reserves or that inferred resources will be upgraded to measured or indicated resources.

**Centerra’s production and cost estimates may be inaccurate**

Centerra prepares estimates of future production and costs for its operations. These production and cost estimates are based on historical costs and productivity experience, or technical studies in the case of new operations; however, actual production and costs may vary from estimates for a variety of reasons, including actual ore mined varying from estimates of grade, tonnage, dilution and metallurgical and other characteristics; short-term operating factors relating to the ore reserves, such as the need for sequential development of orebodies and the processing of new or different ore grades; encountering unusual or unexpected geological conditions; risks and hazards associated with mining; shortages of principal supplies needed for operations, including explosives, fuel, chemical reagents, water, equipment parts and lubricants; natural phenomena, such as inclement weather conditions, floods, earthquakes, ice or ground movements, pit wall failures and cave-ins; equipment failures; labour issues including unexpected labour shortages or strikes, and the inability to retain or attract the suitable personnel and civil action by employees; and insufficient modelling robustness. Costs of production may also be affected by a variety of factors, including: changing waste-to-ore ratios, ore grade metallurgy, labour costs, costs of supplies and services (such as, for example, fuel and power), general inflationary pressures and currency exchange rates.

**As a result of social media and other web-based applications, reputational risks have increased.**

Damage to the Company’s reputation can be the result of the actual or perceived occurrence of any number of events, including, without limitation, allegations of fraud or improper conduct, environmental non-compliance or damage, or the failure to meet the Company’s objectives or guidance. Any of these events could result in negative publicity to the Company, regardless of whether the underlying event is true or not.

Although Centerra places a great emphasis on protecting its image and reputation, the Company does not ultimately have direct control over how it is perceived by others. Reputation loss may lead to increased challenges in developing and maintaining government and community relations, decreased investor confidence and act as an impediment to the Company’s overall ability to advance its projects, or to access equity or debt financing.

**Centerra may be unable to identify opportunities to grow its business or replace depleted reserves, and it may be unsuccessful in integrating new businesses and assets that we acquire.**

As part of Centerra’s business strategy, the Company has sought and will continue to seek new operating, development and exploration opportunities in the mining industry. In pursuit of such opportunities, the Company may fail to select appropriate acquisition candidates or negotiate acceptable arrangements, including arrangements to finance acquisitions or integrate the acquired businesses into its business. The Company cannot provide assurances that it can complete any acquisition or business arrangement that it pursues, or is pursuing, on favorable terms, if at all, or that any acquisitions or business arrangements completed will ultimately benefit its business. Further, any acquisition the Company makes will require a significant amount of time and attention of the Company’s management, as well as resources that otherwise could be spent on the operation and development of its existing business.

Any future acquisitions would be accompanied by risks, such as a significant decline in assumed commodity prices; the quality of the mineral deposit acquired proving to be lower than expected; the difficulty of assimilating the operations and personnel of any acquired companies; the potential disruption of its ongoing business; the inability of management to realize anticipated synergies and maximize its financial and strategic position; the failure to maintain uniform standards, controls, procedures and policies; and the potential for unknown or unanticipated liabilities associated with acquired assets and businesses, including tax, environmental or other liabilities. There can be no assurance that any business or assets acquired in the future will prove to be profitable, that any development or exploration properties acquired will prove to be promising and eventually benefit Centerra’s business, that the Company will be able to integrate the acquired businesses or assets successfully or that the Company will identify all potential liabilities during the course of due diligence.

**The trading price of the Company’s common shares may be subject to large fluctuations and may increase or decrease in response to a number of events and factors.**

These factors may include, but are not limited to the price of gold, copper and other metals; the impact of exchange rates on our operation costs; the Company’s operating performance and the performance of competitors and other similar companies; the public’s reaction to the Company’s press releases, other public announcements and its filings with the various securities regulatory authorities; changes in earnings estimates or recommendations by research analysts who track the Company’s common shares or the shares of other companies in the resource sector; changes in

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general economic conditions; the presences or actions of a large shareholder; the arrival or departure of key personnel; and acquisitions, strategic alliances or joint ventures involving the Company or its competitors.

In addition, the market price of the Company’s shares are affected by many variables not directly related to the Company’s success and are therefore not within its control, including other developments that affect the market price and volume volatility for all resource sector shares, the breadth of the public market for the Company’s shares, and the attractiveness of alternative investments. The effect of these and other factors on the market price of the Common Shares on the exchanges in which the Company trades has historically made Centerra’s share price volatile and suggests that the Company’s share price will continue to be volatile in the future.

**Natural Phenomena**

**Centerra may experience further ground movements at the Kumtor Mine**

From time to time, the Kumtor Mine has experienced ground movement in various parts of the Central pit, which has led to an employee casualty, considerable short falls in the annual gold production, changes in mining sequences, increased expenditure on depressurization and dewatering programs, the movement of existing infrastructure and/or the redesign and construction of new infrastructure, reduced slope angles of the Central pit, and changes in waste rock dump designs. Recently, KGC experienced pit wall movement in the northwest wall of the Central Pit which required KGC to revise its mining sequence and to defer that area (a portion of cut-back 19) to the end of mine life.

Although extensive efforts are employed by Centerra to prevent and anticipate further ground movement, there is no guarantee that sudden unexpected ground movements will not recur. A future ground movement could result in a significant interruption of operations. The Company may also experience a loss of mineral reserves, a delay or suspension in operations, or a material increase in costs, if it is necessary to redesign the open pit or waste rock dumps as a result of a ground movement. The consequences of a ground movement will depend upon the magnitude, location and timing of any such movement.

**Centerra may experience unanticipated waste dump movements at the Kumtor Mine**

The Company often has to mine a significant amount of waste rock material in order to gain access to ore. At the Kumtor Mine, we place this waste rock material in three areas which have been permitted by Kyrgyz Republic authorities for such purpose: the Davidov Valley waste dump, Lysii waste dump and Sarytor waste dump. These waste dumps are continuously monitored to, among other things, ensure their stability. In 2013, a large section of the Kumtor Mine’s principal waste-rock dump, the Davidov Valley waste dump, experiencing a greater than anticipated rate of movement which required the relocation of certain mine infrastructure including workshops, administrative facilities and electrical substations. The Company expedited the relocation of the affected infrastructure to ensure continued safe operations. In December 2019, a significant rockslide incident occurred as a result of a waste rock dump failure at the Lysii waste rock dump pile located on site resulting in the deaths of two employees.

Extensive efforts are employed by the Kumtor Mine to confirm the stability of the waste dumps and to anticipate waste dump movement (some minimal movement is naturally expected to occur) including automated system monitoring, third party geotechnical reviews, and revision to the strategies for placing waste rock on the waste dumps. However, despite these effects, there are no assurances that sudden unexpected waste dump movements will not recur as they are many factors that are outside of our control that may impact the stability and movement of the waste dump. Any unanticipated waste dump movement could result in interruption of operations, result in the redesign of waste dumps which may require regulatory approval which may not be provided in a timely manner or at all, and increased production costs if we are required to temporarily or permanently use other waste dumps which are further away from the mining activity. There is also a possibility that waste dump movement may reach the tailings dam facility, which could have significant effects on the environment (see risk entitled “Water management and the oversight of our tailings management facilities are subject to regulation and risks and could result in significant damages to persons and property”). The consequences of a waste dump movement will depend upon the magnitude, location and timing of any such movement.

**Centerra will experience further ice movement at the Kumtor Mine**

Continued movement of ice from the South-East Ice Wall into the Kumtor Central pit above the high-grade SB Zone section requires the mining of ice and waste to maintain its planned production of ore.

During 2012, a substantial acceleration of ice movement, which was exacerbated by a 10-day illegal strike which occurred in early February 2012, required us to revise the Kumtor Mine plan to maintain safe access to the Kumtor Central pit. Under the new mine plan, mining of cut-back 12B, where ore for the second quarter of 2012 was to be released, was stopped to permit pre-stripping of ice and waste in the southwest portion of the pit (cut-back 14B) and
unloading of ice and waste material from the high movement area to provide access to the southeast section of the Kumtor Central pit. The changes to the mine plan and the delayed release of ore from cut-back 12B resulted in a seven-week shutdown of the Kumtor process plant and required us to revise its 2012 production and cost guidance.

In February 2014, increased movement of the South arm of the Davidov glacier required the construction of a buttress to ensure continued safe mining in the open pit.

Although the Company is employing extensive efforts to manage further waste and ice movements, there is no guarantee that such efforts will be successful or that further waste and ice movements will not adversely affect operations at the Kumtor Mine. Future movements could result in a significant interruption of operations, impede access to ore deposits, or require redeployment of mobile equipment away from mining of ore. The Company may also experience a loss of mineral reserves or a material increase in costs if it is necessary to redesign the open pit and surrounding infrastructure as a result of waste and ice movements. The consequences of further ice movement into the Kumtor Central pit will depend upon the extent, location and timing of any such movement.

Natural or Man-Made Disasters

The Company’s operations are subject to adverse events brought on by both natural and man-made disasters including but not limited to severe weather conditions, forest fires, earthquakes and avalanche. These events could damage or destroy or adversely affect the operations at our physical facilities and similar events could also affect the facilities of our suppliers. Any such damage or destruction could adversely affect our financial results, future cash flows and earnings as a result of the reduced availability of supplies, decreased production output or increased operating costs.

While the risks were taken into account when determining the design criteria for our operations, there can be no assurance that the Company’s operations will not be adversely affected by this kind of activity. Although we believe we have reasonable insurance arrangements in place to cover certain of such incidents related to damage or destruction, there can be no assurance that these arrangements will be sufficient to fully protect us against such losses.

Competition

Centerra’s future prospects may suffer due to increased competition for mineral acquisition opportunities

Significant and increasing competition exists for mineral acquisition opportunities throughout the world, particularly for opportunities in jurisdictions considered politically safer. As a result of this competition, some of which is with large, better established mining companies with substantial capabilities and greater financial and technical resources, the Company may be unable to acquire rights to exploit additional attractive mining properties on terms we consider acceptable. Accordingly, there can be no assurance that the Company will acquire any interest in additional operations that would yield mineral reserves or result in commercial mining operations. The Company’s inability to acquire such interests could have an adverse impact on its future cash flows, earnings, results of operations and financial condition. Even if the Company does acquire such interests, the resulting business arrangements may not ultimately prove beneficial to its business.

5.2 Financial Risks

Commodity Market

Centerra’s business is sensitive to the volatility of gold and copper prices

The value of the Company’s mineral resources and future operating profit and loss is largely dependent on the world market price of gold and copper, which are volatile and are affected by numerous factors beyond its control. A reduction in the price of gold or copper may prevent the Company’s properties from being economically mined or result in the write down of assets whose value is impaired as a result of low metal or commodity prices. The price of gold or copper may also have a significant influence on the market price of Centerra’s common shares. The price of gold and copper are subject to many factors which are beyond the control of the Company, including global supply and demand; central bank lending, sales and purchases; expectations for the future rate of inflation; the level of interest rates; the strength of, and confidence in, the U.S. dollar; market speculation; the availability and cost of substitute materials; and global or regional political and economic events, including the performance of Asia’s economies.

If the market prices fall and remain below production costs of any of the Company’s mining operations for an extended period, losses would be sustained, and, under certain circumstances, there may be a curtailment or suspension of some or all of the Company’s mining, development and exploration activities. The Company would also have to assess the economic impact of any sustained lower metal prices on recoverability and, therefore, the cut-off grade and level of our mineral reserves and resources.
We enter into provisionally-priced sales contracts, which could have a negative impact on our revenues if prices decline.

In connection with the Company’s Mount Milligan Mine operations, it enters into provisionally-priced sales contracts, whereby the contracts settle at prices to be determined at a future date. The future pricing mechanism of these agreements constitutes an embedded derivative, which is bifurcated and separately marked to estimated fair value at the end of each period. Changes to the fair value of embedded derivatives related to sales agreements are included in sales revenue in the determination of net income. To the extent final prices are higher or lower than what was recorded on a provisional basis, an increase or decrease to sales, respectively, is recorded each reporting period until the date of final pricing. Accordingly, in times of falling commodities prices, the Company’s revenues and cash flow are negatively impacted by lower prices received for contracts priced at current market rates and also from a decrease related to the final pricing of provisionally-priced sales pursuant to contracts entered into in prior years; in times of rising commodities prices, the opposite occurs.

We rely on a few key customers for our projects and the loss of any one key customer could reduce our revenues.

Centerra sells all of its gold doré produced from the Kumtor Mine to Kyrgyzaltyn pursuant to the Restated Gold and Silver Sale Agreement. Gold doré produced from the Öksüt Mine is sold at market prices on the Borsa İstanbul (stock exchange), subject to a right of first refusal by the Central Bank of the Republic of Turkey. The Company has also entered into three multi-year concentrate sales agreements for the sale of copper-gold concentrate produced at Mount Milligan Mine. Pursuant to these agreements for Mount Milligan Mine, the Company has agreed to sell an aggregate of approximately 150,000 tonnes in 2019, 40,000 tonnes in 2020; and 40,000 tonnes in 2021.

A breach of any agreement by us or any customer, a significant dispute with one of these customers, a force majeure event affecting the parties' respective performances under the agreement, a bankruptcy event experienced by the customer, early termination of the agreement, disruptions to the Company’s logistics, trucking or rail networks or any other event significantly and negatively impacting the contractual relationship with one of these customers could harm the Company’s financial condition. If, in such an event, the Company is unable to sell the affected concentrate volume to another customer, or the Company sells the affected concentrate to another customer on terms less advantageous terms to it, the Company’s revenues could be negatively impacted.

Our commodity hedging activities may reduce the realized prices we receive for our copper and gold (as it relates to Mount Milligan Mine), and involve market risk for the fair value of the derivatives, credit risk that our counterparties may be unable to satisfy their obligations to us, and financial risk due to fluctuations in the fair value of the derivatives.

In order to manage our cash flow exposure to copper and gold price volatility in selling production from Mount Milligan Mine, the Company enters into commodity derivatives from time to time for a portion of its expected production from the Mount Milligan Mine. Additionally, the Company receives cash provisional payments in selling production for the Mount Milligan Mine, thus requiring that it purchases gold or copper in order to satisfy its obligation to pay Royal Gold in gold and copper (as the case may be). The Company enters into commodity derivatives from time to time in order to manage its gold and copper price risk that arises when physical purchase and concentrate sales pricing periods do not match. The Company currently has in place unsecured hedging lines with various banks and trading companies in order to manage these exposures.

Commodity derivatives may limit the prices the Company actually realizes and therefore could reduce the Company’s copper and gold revenues in the future. The Company’s commodity hedging activities could impact its earnings in various ways, including recognition of certain mark- to-market gains and losses on derivative instruments. The fair value of the Company’s derivative instruments could fluctuate significantly between periods.

The Company’s commodity derivatives may expose it to significant market risk, which is the risk that the fair value of a commodity derivative might be adversely affected by a change in underlying commodity prices or a change in its expected production, which may result in a significant financial loss on the derivative. The Company mitigates the potential market risk by establishing trading agreements with counterparties under which the Company is not required to post any collateral or make any margin calls on our derivatives. The Company’s commodity derivatives also expose it to credit risks that counterparties may be unable to satisfy their obligations to the Company.

The Company mitigates the potential credit risk by entering into derivatives with a number of counterparties, limiting the amount of exposure to any one counterparty, and monitoring the financial condition of the counterparties. If any of the Company’s counterparties were to default on its obligations to the Company under the derivative transaction or seek bankruptcy protection, it could result in a larger percentage of the Company’s future production being subject to commodity price changes which may have a significant adverse effect on the Company’s cash flow, earnings and financial condition. The risk of counterparty default is heightened in a poor economic environment.


**Centerra’s operations are sensitive to fuel price volatility**

The Company is also exposed to price volatility in respect of key inputs, the most significant of which is fuel. Increases in global fuel prices can materially increase operating costs, erode operating margins and project investment returns, and potentially reduce viable reserves. Conversely, a significant and sustained decline in world oil prices may offset other costs and improve returns. While the Company has entered into hedge arrangements to minimize its risk to fluctuating fuel prices, there are no assurances that such arrangements will be successful.

**The Company's operations are subject to currency fluctuations that may adversely affect the financial position of the Company**

The Company’s earnings and cash flow may also be affected by fluctuations in the exchange rate between the U.S. dollar and other currencies, such as the Kyrgyz som, Canadian dollar and Turkish Lira. The Company’s consolidated financial statements are expressed in U.S. dollars. The Company’s sales of gold and copper are denominated in U.S. dollars, while production costs and corporate administration costs are, in part, denominated in Kyrgyz soms, Canadian dollars and Turkish Lira and other currencies. Fluctuations in exchange rates between the U.S. dollar and other currencies may give rise to foreign exchange currency exposures, both favourable and unfavourable.

Centerra does not currently use a hedging program to limit the adverse effects of foreign exchange rate fluctuations except for the Canadian dollar. We cannot hedge the Kyrgyz som because it is not freely traded but, as the Company’s exposure to other currencies increases, including the Turkish Lira with the operation of the Öksüt Mine, the Company may decide to engage in foreign exchange hedging transactions to reduce the risks associated with fluctuations in foreign exchange rates (to the extent available), but there are no assurances that any such hedging program will be successful.

**Economy, Credit and Liquidity**

**Global Financial Conditions**

Global financial conditions are beyond the Company’s control. A significant disruption in the credit and capital markets could adversely affect our ability to obtain equity or debt financing in the future on favourable terms and could cause permanent decreases in our asset values, which may result in impairment losses. These factors could also increase the Company’s exposure to financial counterparty risk, adversely impact commodity prices, exchange rates, interest rates and impact the trading price of Centerra’s common shares.

**Centerra may experience reduced liquidity**

Centerra may not continue to generate cash flow from operations in the future sufficient to service its debt or make necessary or planned capital expenditures, including the further development and exploration of its mineral properties, including the Kemess and Greenstone Gold Properties. If the Company is unable to generate such cash flow, it may be required to adopt one or more alternatives, such as selling assets, borrowing additional funds, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive, cancelling or deferring capital expenditures and/or suspending or curtailing operations. Such actions may impact production at mining operations and/or the timelines and cost associated with development projects.

**Centerra may have difficulty in obtaining future financing**

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

Many of the Company’s principal operations and development projects are located in under-developed areas that may have experienced past economic and political difficulties and may be perceived as unstable. This perceived increased country or political risk may make it more difficult for Centerra to obtain debt or equity financing. Failure to obtain additional financing on a timely basis may cause us to postpone development plans, forfeit rights in our properties or reduce or terminate our operations.

**Centerra’s ESG practices and reporting may be considered inadequate which may impact our ability to obtain financing**

There exist many environmental and social governance (“ESG”) analytics companies that review and report on the Company’s response to ESG matters, including climate change but also other matters relating to sustainable operations and governance. ESG factors, including climate change, are increasingly becoming a metric for institutional shareholders to review and assess the performance of the Company and a significant factor in their investment decisions. We have robust systems in place to management ESG matters at our operations, and to ensure proper and complete reporting thereof. However, there are no assurances that our efforts will be sufficient or meet the standards...
set by ESG analysts or institutional or other investors or that our efforts will accurately be reported on, which can adversely impact on our reputation and potentially our ability to access to capital.

In order to finance future operations, Centerra may raise funds through the issuance of shares or the issuance of debt instruments or other securities convertible into shares.

Centerra cannot predict the potential need or size of future issuances of Common Shares or the issuance of debt instruments or other securities convertible into shares or the effect, if any, that this would have on the market price of our Common Shares. Any transaction involving the issuance of shares, or securities convertible into shares, could result in dilution, possibly substantial, to present and prospective security holders.

Restrictive covenants in Centerra’s credit facilities may impact business activities

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

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

Insurance

Centerra may not be adequately insured for certain risks

Although the Company maintains insurance to cover some of the operational risks and hazards in amounts it believes to be reasonable, insurance may not provide adequate coverage or may not be available in all circumstances. No assurance can be given that insurance will continue to be available at economically feasible premiums or that it will provide sufficient coverage for losses related to these or other risks and hazards.

The Company may also be subject to liability or sustain losses in relation to certain risks and hazards against which the Company cannot insure or for which it may elect not to insure. The occurrence of operational risks and/or a shortfall or lack of insurance coverage could have an adverse impact on the Company’s future cash flows, earnings, results of operations and financial condition.

Tax

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

Centerra has operations and conducts business in a number of different jurisdictions and is accordingly subject to the taxation laws of each such jurisdiction, as well as tax reviews and assessments in the ordinary course. In some jurisdictions, such as Turkey, the Company is eligible for certain investment incentive programs which provide tax benefits for companies making investments in the relevant country. Participation in such programs requires continued oversight and compliance with the applicable program, which can be time consuming and require the input of third party contractors.

The Company’s international operations are also subject to the Organization of Economic and Co-operative Development’s Base Erosion and Profit Shifting Action Plan, which mandates global businesses to conduct themselves in a manner that ensures taxes are paid in jurisdictions in which income arises.

Taxation laws are complex, subject to interpretation and subject to change. Any such changes in taxation law or reviews and assessments could result in higher taxes being payable by the Company, which could adversely affect its profitability. Taxes may also adversely affect the Company’s ability to repatriate earnings and otherwise deploy its assets.
Counterparty

Short-term investment risks

The Company may, from time to time, invest some excess cash balances in short-term instruments issued by highly rated global financial institutions. The failure of any such financial institutions could have a negative effect on the liquidity of the Company’s investments.

In connection with the Strategic Agreement, the Company has agreed to move a portion of the investments held in the Kumtor Reclamation Trust Fund into investments guaranteed by the Government of the Kyrgyz Republic. We believe that such investments would not be as secure as those issued by highly rated global financial institutions.

5.3 Operational Risks

Centerra’s business is subject to production and operational risks that could adversely affect its business and insurance may not cover these risks and hazards adequately or at all.

Mining and metals processing involve significant production and operational risks, some of which are outside of our control, including but not limited to the following: unanticipated ground and water conditions; shortages of water for processing activities; adjacent or adverse land or mineral ownership that results in constraints on current or future mine operations; geological problems, including earthquakes and other natural disasters; metallurgical and other processing problems; unusual or unexpected mineralogy or rock formations; ground or slope failures; pit flooding; tailings design or operational issues, including dam breaches or failures; structural cave-ins, wall failures or rock-slides; flooding or fires; equipment failures or performance problems; periodic interruptions due to inclement or hazardous weather conditions or operating conditions and other force majeure events; lower than expected ore grades or recovery rates; accidents; delays in the receipt of, or failure to receive, necessary government permits; the results of litigation, including appeals of decisions; delays in transportation; interruption of energy supply; labour disputes; inability to obtain satisfactory insurance coverage; the availability of drilling and related equipment and supplies in the area where mining operations will be conducted; and the failure of equipment or processes to operate in accordance with specifications or expectations.

These risks could result in damage to, or destruction of, the Company’s mines, mills and roasting facilities, resulting in partial or complete permanent shutdowns, sterilization of mineral reserves, personal injury or death, environmental or other damage to our properties or the properties of others, delays in mining, reduced production, monetary losses and potential legal liability. Processing operations are subject to hazards, such as equipment failure or failure of retaining dams around tailings disposal areas that may result in personal injury or death, environmental pollution and consequential liabilities.

The Company’s insurance will not cover all the potential risks associated with our operations. In addition, although certain risks are insurable, the Company may be unable to maintain insurance to cover these risks at economically feasible premiums. Moreover, insurance against risks such as environmental pollution or other hazards as a result of exploration and production is not generally available to the Company or to other companies in the mining industry on acceptable terms. The Company might also become subject to liability for pollution or other hazards that may not be insured against or that it may elect not to insure against because of premium costs or other reasons. Losses from these events may cause the Company to incur significant costs that could have a material adverse effect upon its business. Furthermore, should the Company be unable to fund fully the cost of remediating an environmental problem, it might be required to suspend operations or enter into interim compliance measures pending completion of the required remedy.

Health, Safety and Environment

Centerra is subject to environmental, health and safety risks

Centerra expends significant financial and managerial resources to comply with a complex set of environmental, health and safety laws, regulations, guidelines and permitting requirements (for the purpose of this paragraph, “laws”) drawn from a number of different jurisdictions. The Company believes it is in material compliance with these laws. The historical trend that the Company observes is toward stricter laws, and the Company expects this trend to continue. The possibility of more stringent laws or more rigorous enforcement of existing laws exists in the areas of worker health and safety, the disposition of wastes, the decommissioning and reclamation of mining sites, restriction of areas where exploration, development and mining activities may take place, consumption and treatment of water, and other environmental matters, each of which could have a material adverse effect on the Company’s exploration activities, operations and the cost or the viability of a particular project.
Water management and the oversight of our tailings management facilities are subject to regulation and risks and could result in significant damages to persons and property.

The water collection, treatment and disposal operations at the Company’s mines are subject to substantial regulation and involve significant environmental risks. The extraction process for gold and other metals can produce tailings, which are the sand like materials which remain from the extraction process. Tailings are stored in engineered facilities which are designed, constructed, operated and closed in conformance with local requirements and best practices.

If collection or our management systems (including our physical tailings management facilities or tailings dams) were to fail, overflow or not operate properly (including through matters beyond our control or ability to predict and mitigate, such as extreme weather, seismic event, or other incident), untreated water or other contaminants could spill onto nearby properties or into nearby streams and rivers, causing damage to persons or property, injury to aquatic life and economic damages. Such failures could result in immediate suspension of mining operations by government authorities and cause significant expenses, write offs of material assets and recognize provisions for remediation, which affect the balance sheet and income statement. The Company could also be held liable for claims for natural resource damages, fines or penalties from governmental authorities, and claims relating to exposure to hazardous and toxic substances. In addition, any such failure would involve a lengthy clean-up.

Environmental and regulatory authorities in the applicable jurisdictions of operation conduct periodic or annual inspections of the relevant mine. As a result of these inspections, the Company is from time to time required to modify its water management program, complete additional monitoring work or take remedial actions with respect to the operations as it pertains to water management.

Liabilities resulting from non-compliance, damage, regulatory orders or demands, or similar, could adversely and materially affect the Company’s business, results of operations and financial condition. Moreover, in the event that the Company is deemed liable for any damage caused by overflow, the Company’s losses or consequences of regulatory action might not be covered by insurance policies.

Centerra’s operations may be exposed to local epidemic and/or widespread pandemic

A major global pandemic (e.g. COVID-19) could have material adverse impacts on our ability to operate due to employee absences, global supply chain disruptions, information technology system constraints, government interventions, market volatility and overall economic uncertainty.

Centerra’s operations are located in areas relatively remote from local towns and village. We rely on various modes of transportation to move around our people, our product and the necessary supplies for our operations.

At many of our sites, we have a high concentration of personnel working and residing in close proximity to one another at the Mine site (camps). Should an employee or visitor become infected with a serious illness that has the potential to spread rapidly, this could place Centerra’s workforce at risk. The Company takes every precaution to strictly follow industrial hygiene and occupational health guidelines, and medical services are in place along with pandemic management protocols. There can be no assurance that this virus or another infectious illness will not impact Centerra personnel and ultimately its operations.

Centerra’s operations use cyanide

The Kumtor Mine and Öksüt Mine operations employ sodium cyanide, which is a hazardous material, to extract gold from ore. There is inherent risk of unintended discharge of hazardous materials in the operation of leach pads.

If any spills or discharges of sodium cyanide were to occur (at site or during transport), the Company could become subject to liability for remediation costs, which could be significant and may not be insured against. In addition, production could be delayed or halted to allow for remediation, resulting in a reduction or loss of cash flow. Finally, increased sensitivity in respect to the use of cyanide and the potential and perceived environmental impacts of cyanide use in mining operations could exacerbate potential reputational damage to the Company in the event of a cyanide release. While the Company takes appropriate steps to prevent discharges and accidental releases of sodium cyanide and other hazardous materials into the ground water, surface water and the downstream environment, there is inherent risk in the operation of gold processing facilities and there can be no assurance that a release of hazardous materials will not occur.

We must remove and reduce impurities and toxic substances naturally occurring in copper, gold and molybdenum ores and comply with applicable law relating thereto, which could result in remedial action and other costs.

Mineral ores and mineral products, including copper, gold and molybdenum ore and products, contain naturally occurring impurities and toxic substances. Although the Company has implemented procedures that are designed to
identify, isolate and safely remove or reduce such impurities and substances, such procedures require strict adherence and no assurance can be given that employees, contractors or others will not be exposed to or be affected by such impurities and toxic substances, which may subject us to liability. Standard operating procedures may not identify, isolate and safely remove or reduce such substances.

Even with careful monitoring and effective control, there is still a risk that the presence of impurities or toxic substances in the Company’s products may result in such products being rejected by the Company’s customers, penalties being imposed due to such impurities or the products being barred from certain markets. Such incidents could require remedial action and could result in curtailment of operations. Legislation requiring manufacturers, importers and downstream users of chemical substances, including metals and minerals, to establish that the substances can be handled and used without negatively affecting health or the environment may impact the Company’s operations and markets.

**We require permits to raise our tailings dams which may refused and/or delayed.**

The tailings dam design for both the Kumtor Mine and the Mount Milligan Mine require additional approvals and permits to reach the height required for their respective life of mine plans. While the Company has received in the past approvals to raise the tailings dam when required, there are no assurances that such approvals will continue to apply in the future, or that the Company will receive further approvals required to raise the tailings dam to its final height. If all necessary approvals are not maintained or obtained, delays in, or interruptions or cessation of the Company’s production from the applicable mine may occur.

**The Company’s mining production depends on the availability of sufficient water supplies.**

The Company’s operations require significant quantities of water for mining, ore processing and related support facilities. Continuous production at the Company’s mines depends on its ability to maintain its water rights and claims. The failure to obtain needed water permits, the loss of some or all water rights for any of its mines, in whole or in part, or shortages of water to which the Company has rights due to weather, equipment issues or other factors could require the Company to curtail or close mining production and could prevent it from pursuing expansion opportunities.

In December 2017, the Mount Milligan Mine mill operations were temporarily suspended due to a lack of available water for processing. The Mount Milligan Mine experienced a drier than normal spring and summer during 2017 with a limited amount of spring snow melt. This resulted in lower than expected reclaim water volumes in the TSF at the Mount Milligan Mine which is used for processing operations. The water shortage was exacerbated by unanticipated extremely cold temperatures at the Mount Milligan Mine, which resulted in a greater than expected loss of water volumes in the TSF due to ice formation. The Company restarted mill operations at the Mount Milligan Mine in early February 2018 after completing a number of steps to increase the flow of water into the TSF, including adding pumps to existing water wells, increasing pump sizes to increase the flow rate, maximizing tailing placement and drilling additional wells. The Company has also received regulatory approvals to access additional surface water and groundwater for milling operations until November 2021 and has now started the necessary studies, and commenced consultation with potentially impacted Indigenous groups to work toward a further, longer-term water solution for the Mount Milligan Mine.

There are no assurances that this long-term solution will be successful, be obtained prior to expiry of current approvals to access surface water or groundwater (November 2021) or that the long-term solution will supply sufficient water resource for the continuous operation of the mill. The failure to find a long-term solution to the lack of available water resources at the Mount Milligan Mine, or the re-occurrence of any water availability issues at the Mount Milligan Mine, including due to drier than expected weather conditions, extreme temperatures, or for any other reason, could adversely impact on the Company’s future cash flows, earnings, results of operations and financial condition.

**Regulation of greenhouse gas emissions effects and climate change issues may adversely affect our operations and markets.**

Global climate change continues to attract considerable public, scientific and regulatory attention, and greenhouse gas emission regulation is becoming more commonplace and stringent. As energy, including energy produced from the combustion of carbon-based fuels, is a significant input to the Company’s mining and processing operations, it must also comply with emerging climate change regulatory requirements, including programs to reduce greenhouse gas emissions. The Company’s principal energy sources are electricity, purchased petroleum products and natural gas. In addition, the Company’s processing facilities and mobile mining equipment emit carbon dioxide.

A number of governments or governmental bodies have introduced or are contemplating regulatory changes in response to the potential impacts of climate change. Where legislation already exists, regulation relating to emission levels and energy efficiency is becoming more stringent. The changes in legislation and regulation will likely increase the
Company’s compliance costs. The Company also may be subject to additional and extensive monitoring and reporting requirements.

In addition, the potential physical impacts of climate change on the Company’s operations are highly uncertain and may be particular to the unique geographic circumstances associated with each of its facilities. These may include extreme weather events, changes in rainfall patterns, water shortages, and changing temperatures. These physical impacts could require the Company to curtail or close mining production and could prevent the Company from pursuing expansion opportunities. The Company has taken measures to mitigate the impact of weather on its operations, including ensuring that extreme weather conditions are included in its emergency response plans. However, there are no assurances that extreme weather events such as severe cold temperature or drought conditions will not adversely impact the cost, production and financial performance of the Company’s operations.

**Centerra faces substantial decommissioning and reclamation costs**

The Company is required to establish at each of its mine sites and development projects a decommissioning and reclamation plan. Provision must be made for the cost of decommissioning and reclamation for operating sites. These costs can be significant and are subject to change depending on the requirements of regulatory authorities, changes in legislation, changes in the understanding of what reclamation activities are required at our operations, and changes in best practices for reclamation. We provide financial assurances, whether through cash deposits or bonds, with applicable regulatory authorities. However, there is no way to predict what level of decommissioning and reclamation may be required in the future. If the Company is required to comply with significant additional regulations or if the actual cost of future decommissioning and reclamation is significantly higher than current estimates, this could have an adverse impact on the Company’s future cash flows, earnings, results of operations and financial condition. For example, we are currently reviewing water treatment costs at our Endako Mine which may result in significant increases in closure costs.

**Development and construction risks**

Centerra has two properties in the development phase: a 100% interest in the Kemess project and a 50% in the Greenstone Gold Property. In making a decision to commence construction of a development property, the Company must consider many factors including future metal prices and exchange rates, which can change significantly over the long period of time often needed to develop and construct the mine. The capital expenditures and time required to develop and construct mines are considerable and changes in cost or construction schedules can also significantly increase both the time and capital required to build the project.

Construction costs and timelines can be impacted by a wide variety of factors, many of which are beyond our control. These include, but are not limited to, weather conditions, ground conditions, performance of the mining fleet and availability of appropriate materials required for construction, availability and performance of contractors and suppliers, delivery and installation of equipment, design changes, accuracy of estimates, global capital cost inflation, local in-country inflation and availability of accommodations for the workforce. Project development schedules are also dependent on obtaining the governmental approvals necessary for the operation of a project. The timeline to obtain these government approvals is often beyond the control of the Company. A delay in start-up or commercial production would increase capital costs and delay receipt of revenues.

While the Company believes that it has the expertise to develop the project within budget and on schedule, there can be no assurances. Any increase in the capital costs or delay in the project development timeline may adversely impact the Company’s future cash flow, earnings, results of operations and financial conditions.

**Asset Management**

**Centerra may experience mechanical breakdowns**

The Company’s mines (whether operating or currently on care and maintenance) use expensive, large mining and processing equipment that requires a long time to procure, build and install. Although the Company conducts extensive preventive maintenance programs, there can be no assurance that the Company will not experience mechanical breakdowns of mining and processing equipment. In the past, the Company has experienced such mechanical breakdowns, which have resulted in unplanned mill shutdowns and reduced mill capacity. In addition, obtaining replacement components for the equipment can take considerable time which may also impact production. Any extended breakdown in mining or processing equipment could have an adverse impact on the Company’s future cash flows, earnings, results of operations and financial conditions.
Human Resources

Certain of our projects are unionized and may be subject to labour disturbances

Production at the Company’s operations depends on the efforts of its employees. The Company has unionized environments at our Kumtor Mine, Kemess project and Langeloth metallurgical facility, and therefore employees are subject to collective agreements which require frequent renegotiations.

There can be no assurance that, when such agreements expire, there will not be any delays in the renewal process, that negotiations will not prove difficult or that Centerra will be able to renegotiate the collective agreement on satisfactory terms, or at all. The renewal of the collective agreement could result in higher on-going labour costs, which could have a material adverse impact on Centerra’s future cash flows, earnings, results of operations and financial condition. Centerra could be subject to labour unrest or other labour disturbances including strikes as a result of any failure of negotiations which could, while ongoing, have a material adverse impact on Centerra, including the achievement of any annual production guidelines and costs estimates. Existing collective agreements may not prevent a strike or work stoppage, and any such work stoppage could have a material adverse impact on the Company.

There is also a possibility that the Company’s employees at its other projects, including the Mount Milligan Mine, could organize and certify a union in the future.

Centerra’s success depends on its ability to attract and retain qualified personnel

Recruiting and retaining qualified personnel is critical to the Company’s success. The number of persons skilled in the acquisition, exploration and development of mining properties is limited and competition for these resources is intense. As the Company’s business activity grows, it will require additional key financial, administrative and mining personnel as well as additional operations staff. Certain jurisdictions in which the Company operates may limit the number of foreign nationals that can be employed at the mining site. For example, the Restated Concession Agreement relating to the Kumtor Mine operations requires two thirds of all administrative or technical personnel to be citizens of the Kyrgyz Republic. However, it has been necessary to engage expatriate workers for the Company’s operations in the Kyrgyz Republic because of the shortage locally of trained personnel. Furthermore, large-scale projects in northern and central British Columbia compete for talent with the Company’s operations. Although the Company believes that it will be successful in attracting, training and retaining qualified personnel, there can be no assurance of such success.

Supply Chain

Centerra’s properties are located in remote locations and require a long lead time for equipment and supplies

Some of the Company’s properties are in remote locations and depend on an uninterrupted flow of materials, supplies and services to those locations. Any interruptions to the procurement of equipment, or the flow of materials, supplies and services to the Company’s properties could have an adverse impact on its future cash flows, earnings, results of operations and financial condition.

Centerra’s operations may be impacted by supply chain disruptions

The Company’s operations depend on uninterrupted supply of key consumables, equipment and components, which may be impacted by matters outside of the Company’s control or ability to mitigate. These conditions may include global events such as the COVID-19 pandemic which may our operations globally, and local events affecting a specific operation. For example, the Company’s Kyrgyz Republic operations are limited with respect to alternative suppliers of fuel, and any disruption at supplier facilities could result in curtailment or suspension of operations. In addition, major equipment and components and certain key consumables are imported. Recent and potential future economic sanctions imposed on Russia by the U.S. and European Union in 2014 and 2016, may impact delivery of goods and services to the Kumtor Mine operation. The accession of the Kyrgyz Republic to the Eurasian Economic Union may also impact the Kumtor Mine supply chains. Any disruption in the transportation of or restriction in the flow of these goods or the imposition of customs clearance requirements may result in production delays.

Information Technology Systems

Centerra’s critical operating systems may be compromised

Cyber threats have evolved in severity, frequency and sophistication in recent years, and target entities are no longer primarily from the financial or retail sectors. Individuals engaging in cybercrime may target corruption of systems or data, or theft of sensitive data. Centerra is dependent on information technology systems in the conduct of its operations. The Company’s mines and mills are automated and networked such that Centerra could be adversely affected by network disruptions from a variety of sources, including, without limitation, computer viruses, security breaches, cyber-attacks, natural disasters and defects in design. Centerra’s operations also depend on the timely
maintenance, upgrade and replacement of networks, equipment information technology systems and software, as well as pre-emptive expenses to mitigate the risk of failure.

Given the unpredictability of the timing, nature and scope of information technology disruptions, a corruption of the Company’s financial or operational data or an operational disruption of its production infrastructure as a result of any of these or other events could result, among other things, in: (i) production downtimes; (ii) operational delays; (iii) destruction or corruption of data; (iv) increases in capital expenditures; (v) loss of production or accidental discharge; (vi) expensive remediation efforts; (vii) distraction of management; (viii) damage to our reputation or our relationship with customers; or (ix) in events of noncompliance, which events could lead to regulatory fines or penalties. Any of the foregoing could have a material adverse effect on the Company’s business, results of operations and financial condition.
6. INVESTOR INFORMATION

6.1 Description of Share Capital

Our authorized share capital consists of an unlimited number of Common Shares, an unlimited number of Class A non-voting shares and an unlimited number of preference shares, issuable in series. There are no constraints on the ownership of our shares, except as set out in the restated shareholders agreement dated as of June 6, 2009 entered into between Centerra and Kyrgyzaltyn (the “Restated Shareholders Agreement”). See “Restated Shareholders Agreement” below. The following summary does not purport to be complete and reference is made to our articles of incorporation, as amended, which can be found on www.sedar.com.

Common Shares

Each common share of Centerra ("Common Shares") is entitled to:

- one vote at meetings of shareholders, except for meetings at which only holders of another specified class or series of shares are entitled to vote separately as a class or series;
- receive dividends if, as, and when declared by the Board; and
- participate in any distribution of our net assets upon liquidation, dissolution or winding-up on an equal basis per share but subject to the rights of the holders of preference shares.

There are no pre-emptive, redemption, purchase or conversion rights attached to our Common Shares.

The Board, at a meeting held on May 9, 2006, approved a three-for-one stock split of our outstanding Common Shares, which was affected by way of a stock dividend. Shareholders of record at the close of business on May 29, 2006 received two additional Common Shares for each Common Share held. Our Common Shares began trading on a split basis on May 25, 2006 on the TSX.

As at December 31, 2019, there were 293,690,456 Common Shares issued and outstanding (on a non-diluted basis).

As at March 24, 2020, there were 293,814,618 Common Shares issued and outstanding (on a non-diluted basis) and 4,142,782 options to acquire Common Shares outstanding under its stock option plan and 1,029,201 units outstanding under its restricted share unit plan (exercisable on a 1:1 basis for common shares).

Class A Non-Voting Shares

The Class A non-voting shares have the same terms and conditions as our Common Shares, except:

- they will be non-voting; and
- they will not be entitled to any dividends or distributions that can be attributed reasonably to KGC or its assets or operations

There are currently no Class A non-voting shares outstanding as they have been created solely for the purposes of the insurance risk rights plan described below.

Preference Shares

Preference shares may be issued at any time or from time to time in one or more series as may be determined by the Board. The Board is authorized to fix before issue: the number, the consideration per share and the designation of and, subject to the special rights and restrictions attached to all preference shares, the rights and restrictions attached to the preference shares of each series. The preference shares of each series rank on a parity with the preference shares of each other series with respect to the payment of dividends and the return of capital on liquidation, dissolution or winding-up. The preference shares are entitled to a preference over the Common Shares and any other shares ranking junior to the preference shares with respect to the payment of dividends and the return of capital.

The special rights and restrictions attaching to the preference shares as a class may not be amended without any approval as may then be required by law, subject to a minimum approval requirement of at least two thirds of the votes cast at a meeting of the holders of preference shares to be called and held for that purpose.

There are currently no preference shares outstanding.

Political Risk Insurance Rights Plan

As a prerequisite to acquiring political risk insurance for our Kumtor mining operations, we adopted an insurance risk rights plan as of June 21, 2004. Our political risk insurance policy expired in November 2012, but our insurance risk
rights plan still remains in effect. The insurance risk rights plan applies if an event occurs relating to KGC or its assets or operations at a time when Kyrgyzaltyn is controlled by the Kyrgyz Government and the event is caused by that Kyrgyz Government and results in a payment to us under the political risk insurance coverage. In this event, the following will occur:

- Each holder of our Common Shares will be entitled to exchange its shares for Class A non-voting shares. Kyrgyzaltyn has irrevocably elected to exchange all of its Common Shares for Class A non-voting shares and it is expected that no other shareholders would elect to do this.
- The holders of our Common Shares (but not Class A non-voting shares) will be entitled to acquire additional Common Shares for C$0.01 per share, with the aggregate number of Common Shares available determined by a formula designed to provide for the holders of Class A non-voting shares to be diluted by an amount that approximates the proceeds received under the political risk insurance.
- Following the exercise of the rights to acquire additional shares by our Common Shareholders, the Class A non-voting shares will convert back into Common Shares.

Kyrgyzaltyn has also agreed that, following the determination by the Board that an event has occurred that could reasonably result in this plan being triggered and for so long as such event continues or until the process described above has been completed, it will not transfer its shares or exercise any voting rights in respect of its shares or be entitled to receive any dividends or distributions on its shares that can be attributed reasonably to KGC or its assets or operations or distributions from KGC during such period. The plan will continue in effect until terminated by the Board based on a determination that it is no longer necessary or desirable having regard to, among other things, the extent of our operations based in the Kyrgyz Republic. A copy of the plan can be found on SEDAR at www.sedar.com.

### 6.2 Market for Our Securities

We completed our initial public offering on June 30, 2004. Our Common Shares are listed on the TSX under the symbol CG.

#### Trading Price and Volume

The table below shows the high and low prices and total monthly trading volume for our Common Shares on the TSX in 2019. All prices listed below are in Canadian dollars.

<table>
<thead>
<tr>
<th>2019</th>
<th>High ($)</th>
<th>Low ($)</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>6.95</td>
<td>5.64</td>
<td>12,292,995</td>
</tr>
<tr>
<td>February</td>
<td>7.20</td>
<td>6.61</td>
<td>10,766,977</td>
</tr>
<tr>
<td>March</td>
<td>7.58</td>
<td>6.36</td>
<td>14,418,599</td>
</tr>
<tr>
<td>April</td>
<td>7.49</td>
<td>6.58</td>
<td>7,326,905</td>
</tr>
<tr>
<td>May</td>
<td>7.88</td>
<td>7.07</td>
<td>12,859,086</td>
</tr>
<tr>
<td>June</td>
<td>9.61</td>
<td>7.95</td>
<td>17,836,164</td>
</tr>
<tr>
<td>July</td>
<td>11.15</td>
<td>8.87</td>
<td>16,400,114</td>
</tr>
<tr>
<td>August</td>
<td>12.88</td>
<td>10.07</td>
<td>20,594,299</td>
</tr>
<tr>
<td>September</td>
<td>12.58</td>
<td>10.09</td>
<td>20,107,860</td>
</tr>
<tr>
<td>October</td>
<td>13.00</td>
<td>10.42</td>
<td>17,645,484</td>
</tr>
<tr>
<td>November</td>
<td>11.53</td>
<td>10.16</td>
<td>10,907,563</td>
</tr>
<tr>
<td>December</td>
<td>10.71</td>
<td>8.60</td>
<td>15,067,817</td>
</tr>
</tbody>
</table>

On December 31, 2019, the closing price of our Common Shares on the TSX was C$10.33.

#### Registrar and Transfer Agent

The transfer agent and registrar for our Common Shares is the AST Trust Company (Canada) at its principal office in Toronto, Ontario, Canada.

### 6.3 Dividend Policy

In July 2010, we adopted a dividend policy whereby the decision to pay dividends, the timing and the quantum thereof is to be determined by the Board from time to time based on, among other things, our cash balance, operating cash flows, anticipated capital requirements for future growth and the yields of comparable companies’ dividend rates.

On December 9, 2016, we announced the suspension of future quarterly dividends. This decision was made by the Board in light of the restrictions relating to funds held at our wholly-owned Kyrgyz Republic subsidiary, KGC. As
discussed elsewhere in this AIF, these restrictions were removed in September 2017 as part of the Kumtor Strategic Agreement.

Pursuant to the terms of our Corporate Facility with a syndicate of lenders entered into in February 1, 2018, we are only permitted to declare and pay cash distributions to our shareholders in any fiscal quarter in an aggregate amount not to exceed $30 million and only if there is no event of default occurring.

6.4 Material Contracts

The following are the only material contracts, other than contracts entered into in the ordinary course of business not otherwise required to be disclosed, that we have entered into within the most recently completed fiscal year or before the most recently completed fiscal year but still in effect.

Corporate Credit Facility

The Company has entered a $500 million four-year secured revolving credit facility with a lending syndicate led by The Bank of Nova Scotia and National Bank of Canada.

Mount Milligan Streaming Arrangement

As part of the Acquisition of Thompson Creek, we negotiated amendments to Thompson Creek’s existing gold streaming arrangements Royal Gold. See “Marketing and Distribution – Royal Gold Streaming Arrangement” for a description of the agreement and the amendments.

Restated Investment Agreement

Centerra, KOC, KGC, the Kyrgyz Government and Kyrgyzaltyn entered into a Restated Investment Agreement dated as of June 6, 2009. The Restated Investment Agreement and related agreements set out the terms and conditions applicable to our ongoing operation and development of the Kumtor Mine, including providing for a comprehensive tax regime applicable to the Kumtor Mine. The Restated Investment Agreement has a term lasting until the earlier of 2042 or when the deposits comprising the Kumtor Mine are exhausted and mining is completed. For further information, see the section of this AIF entitled “Centerra’s Properties – Producing Properties – Kumtor Mine”.

Restated Shareholders Agreement

The Restated Shareholders Agreement was entered into among Centerra and Kyrgyzaltyn as of June 6, 2009 and sets out the rights and obligations of Centerra and Kyrgyzaltyn with respect to their respective ownership of our shares.

The Restated Shareholders Agreement provides that, in the event that Kyrgyzaltyn wishes to initiate a distribution of our Common Shares (whether by private placement or public offering) we shall furnish all reasonable assistance in preparing the required disclosure documents. We are obliged to provide such assistance to Kyrgyzaltyn only once in any 12-month period and the costs of this assistance is for the account of Kyrgyzaltyn. Also, if we propose to issue any of our Common Shares by private placement or public offering, we will provide Kyrgyzaltyn with an opportunity to sell its shares as part of the offering provided that our reasonable capital needs take priority.

So long as Kyrgyzaltyn and its affiliates continue to hold 10% or more of our outstanding Common Shares, we will include in our proposed slate of directors nominated for election at each annual or special meeting two Board nominees designated by Kyrgyzaltyn, one of whom must be independent of the Kyrgyz Government. Should Kyrgyzaltyn’s interest constitute less than 10% but more than 5% of our outstanding Common Shares, Kyrgyzaltyn’s right to Board nominee is limited to one.

We also entered into a separate agreement with Kyrgyzaltyn confirming that we will use commercially reasonable efforts to have at least one representative of Kyrgyzaltyn elected as Chairman of the KGC Board of Directors, a member of the KGC Management Committee and a member of the KGC Auditing Committee.

Restated Concession Agreement

The Restated Concession Agreement is described under the heading “Centerra’s Properties – Producing Properties – Kumtor Mine – Property Description, Location and Concession”.

Insurance Risk Rights Plan Agreement

The insurance risk rights plan agreement is described above under the heading “Description of Share Capital – Political Risk Insurance Rights Plan”.
6.5 Legal Proceedings and Regulatory Actions

Other than the proceedings discussed elsewhere in this document we are not a party to, or the subject of, any legal proceedings or regulatory actions that are outside of the ordinary course of business or that we would anticipate would result in a material adverse impact on our financial position or our results of operations, and no such proceedings or actions are known to be contemplated.

6.6 Interests of Experts

Our auditor, KPMG LLP, is independent in accordance with applicable rules of professional conduct of the Institute of Chartered Accountants of Ontario.

The individuals who are qualified persons for the purposes of NI 43-101 are listed under the section of this AIF entitled “Technical Information”. As a group, they beneficially own, directly or indirectly, less than 1% of any class of the outstanding securities of Centerra and our associates and affiliates.
# Glossary of Geological and Mining Terms

The following is a glossary of technical terms and abbreviations that appear in this AIF:

**ADR plant**

“Adsorption – Desorption – Regeneration (ADR) plant which generally follows the CIL/CIP or heap leach process. ADR, covers the adsorption of precious metals on active carbon, stripping the carbon with strong cyanide solution, recovery of the metals through the electrowinning, pouring the precious metals as nuggets from the melting pot as well as regenerating the carbon to activate and reuse.

**alluvial**

Relating to deposits made by flowing water, washed away from one place and deposited in another.

**assay**

An analysis to determine the presence, absence or concentration of one or more chemical components.

**ball mill**

A large steel cylinder containing steel balls into which crushed ore is fed. The ball mill is then rotated, causing the balls to cascade and grind the ore.

**belt**

An area characterized by a particular assemblage of mineral deposits, or by one or more characteristic types of mineralization.

**bench**

A ledge that, in open pit mines and quarries, forms a single level of operation above which minerals or waste materials are excavated from a contiguous bank or bench face. The mineral or waste is removed in successive layers, each of which is a bench.

**blast hole**

A hole drilled for the purpose of inserting an explosive charge in a material to be blasted.

**block model**

A model that utilizes a three-dimensional block grid of a fixed or variable size to estimate in-situ resources and reserves.

**breccia**

Rock consisting of fragments, more or less angular, in a matrix of finer-grained or cementing material.

**capping**

Individual assays above this assay grade value are limited to prior grade interpolation. Also referred to as high-grade top cutting.

**carbon-in-leach (CIL)**

A recovery process in which a slurry of gold ore, carbon granules and cyanide are mixed together in a leach tank. The cyanide dissolves the gold, which is then absorbed by the carbon. The carbon is subsequently separated from the slurry and the gold removed from the carbon.

**carbon-in-pulp (CIP)**

Similar process as CIL (above) except that the leaching takes place in tanks dedicated for leaching followed by adsorption into carbon in tanks dedicated for adsorption.

**circuits**

Facilities for removing valuable minerals from ore so that it can be processed and sold.

**concentrate**

A product containing valuable metal from which most of the waste material in the ore has been eliminated.

**concession**

Grants made under a system whereby the state or the private owner has the right to grant concessions or leases to mine operators subject to certain general restrictions. Concession systems are used in almost every mining country in the world except the United States.

**cut-off grade**

The minimum metal grade at which a tonne of rock can be economically mined and processed.

**cuttings**

The particles of rock produced in a borehole by the abrasive or percussive action of a drill bit.

**cyanidation**

A method of extracting gold or silver by dissolving it in a weak solution of sodium cyanide.
**deposit**
A mineralized body that has been physically delineated by sufficient drilling, trenching and/or underground work and found to contain a sufficient average grade of metal or metals to warrant further exploration and/or development expenditures; such a deposit does not qualify as a commercially mineable orebody or as containing mineral reserves until final legal, technical and economic factors have been resolved.

**depressurization**
The mechanical process of lowering or removing hydraulic water pressure from a geological structure or unit without the complete removal of the contained water.

**dewatering**
The mechanical process of removing or controlling water contained within a geological structure, unit or excavated opening such as an open pit or underground working.

**diamond drill**
A type of rotary drill that cuts by abrasion rather than percussion. The cutting bit is set with diamonds and is attached to the end of long hollow rods through which water is pumped to the cutting face. The drill cuts a core of rock which is recovered in long cylindrical sections, approximately two centimetres or more in diameter.

**dip**
The angle at which a bed, stratum or vein is inclined from the horizontal, measured perpendicular to the strike and in the vertical plane.

**dilution**
The effect of waste or low-grade ore being included in mined ore, increasing tonnage mined and lowering the overall ore grade.

**doré**
Unrefined gold and silver bullion bars usually consisting of approximately 90% precious metals that will be further refined to almost pure metal.

**drill core**
A long cylindrical sample of rock, approximately two centimetres in diameter, brought to the surface by diamond drilling.

**electrowinning**
Recovery of a metal from ore by means of electro-chemical processes.

**facies**
A term of wide application, referring to such aspects of rock units as rock type, mode of origin, composition, fossil content or environment of deposition.

**fault**
A fracture in the earth’s crust, along which there has been displacement of the two sides relative to one another and parallel to the fracture. The displacement may be a few inches or many miles long.

**feasibility study**
A comprehensive study of a deposit in which all geological, engineering, operating, economic and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production.

**fire assay**
The assaying of metallic ores, in particular gold and silver, at high temperatures with an assay furnace.

**flotation**
A milling process by which some mineral particles are induced to become attached to bubbles of froth and float. Others are left to sink so that the valuable minerals are concentrated and separated from the remaining rock or mineral material.

**fresh**
Rock surface that has not been subjected to or altered by surface weathering, such as a rock newly exposed by fracturing.

**g/t**
Grams per tonne.

**geotechnical drilling**
Drilling for the purpose of collecting information to be used in rock stability analyses.

**grade**
The amount of mineral in each tonne of ore.

**gravimetric**
Of or relating to measurement by weight.

**gravity concentration**
The separation of grains of minerals using a concentration method based on the different densities of those minerals.

**host rock**
The body of rock in which mineralization of economic interest occurs.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrothermal alteration</td>
<td>Alteration of rocks or minerals by the reaction of hydrothermal water with pre-existing solid phases.</td>
</tr>
<tr>
<td>infill drilling</td>
<td>Drilling within a defined mineralized area to improve the definition of the known mineralization.</td>
</tr>
<tr>
<td>intrusive</td>
<td>Rock which, while molten, penetrated into or between other rocks but solidified before reaching the surface.</td>
</tr>
<tr>
<td>IsaMill</td>
<td>A high intensity, stirred mill used in the fine grinding of mineral ores. It was developed by Mount Isa Mines in the 1990s.</td>
</tr>
<tr>
<td>kriging</td>
<td>A commonly used method to compute resources using a weighted moving average to interpolate values (grades) from a sample data set onto a grid.</td>
</tr>
<tr>
<td>leach</td>
<td>To extract minerals or metals from ore with chemicals.</td>
</tr>
<tr>
<td>lens</td>
<td>A body of ore or rock that is thick in the middle and converges toward the edges, resembling a convex lens.</td>
</tr>
<tr>
<td>matrix</td>
<td>The non-valuable minerals in an ore.</td>
</tr>
<tr>
<td>micron</td>
<td>Former term for micrometer, meaning a unit of length equal to one-millionth of a metre.</td>
</tr>
<tr>
<td>mill</td>
<td>A processing facility where ore is finely ground and thereafter undergoes physical or chemical treatment to extract the valuable metals.</td>
</tr>
<tr>
<td>mineral reserves</td>
<td>The economically mineable part of a measured or indicated mineral resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A mineral reserve includes diluting materials and allowances for losses that may occur when the material is mined.</td>
</tr>
<tr>
<td></td>
<td><strong>Proven mineral reserve</strong>: The economically mineable part of a measured mineral resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.</td>
</tr>
<tr>
<td></td>
<td><strong>Probable mineral reserve</strong>: The economically mineable part of an indicated mineral resource, and in some circumstances a measured mineral resource, demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.</td>
</tr>
<tr>
<td>mineral resources</td>
<td>A concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge.</td>
</tr>
</tbody>
</table>
**Measured mineral resources**: That part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

**Indicated mineral resources**: That part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

**Inferred mineral resources**: That part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

- **mineralization**: The concentration of minerals within a body of rock.
- **net smelter return ("NSR") royalty**: A royalty payment made by a producer of metals, normally to a previous property owner, based on gross mineral production from the property, less deduction of certain costs.
- **nugget effect**: Grade variation due to measurement errors and short-range special variation at short distances.
- **open pit mine**: A mine that is entirely open to the surface.
- **ore**: A metal or mineral, or a combination of these, of sufficient quality and quantity to enable it to be mined at a profit.
- **ounces (oz)**: Troy ounces = 31.103 grams.
- **oxidation**: A chemical reaction caused by exposure to oxygen that results in a change in the chemical composition of a mineral.
- **pit design**: An open pit contour surface based on an optimized pit shell that has been engineered in detail by adding access ramps and by smoothing of the pit walls. Pit designs are supported by detailed mining plans.
- **pit shell**: A non-engineered open pit contour surface produced by optimization software at a particular gold price, without consideration to equipment access and mining plans.
- **placer**: A deposit of sand or gravel that contains particles of gold or other heavy, valuable minerals. The common types are stream gravels and beach sands.
- **preg-robbing**: When leaching ore, a dilute cyanide solution is used to dissolve the gold to produce a pregnant solution. When carbon mineralization is present in the ore it may re-absorb some of the gold from the pregnant solution. This process is referred to as preg-robbing.
- **pulp**: A mixture of ground ore and water capable of flowing through suitably graded channels as a fluid.
pyrite  An iron sulfide mineral, normally of little value and sometimes referred to as fool's gold.

recovery  The proportion of valuable material obtained as a result of processing an ore. It is generally stated as a percentage of valuable metal in the ore that is recovered compared to the total valuable metal present in the ore.

refractory ore/material  Ore from which it is difficult to recover valuable substances. Refractory material must be pre-treated before gold can be recovered from it through conventional cyanidation.

reserves  Means mineral reserves.

resources  Means mineral resources.

roasting  A method of oxidizing refractory ore using very high temperatures to thermally decompose the sulphide minerals encapsulating the gold, which is ultimately recovered using conventional cyanide leaching.

schist  A strongly foliated crystalline rock that can be readily split into thin flakes or slabs due to the well-developed parallelism of more than 50% of the minerals present in it.

sedimentary rocks  Secondary rocks, such as lime, shale and sandstone, formed from material derived from other rocks.

semi-autogenous (SAG) grinding  A method of grinding rock into fine sand, in which the grinding media consist of larger chunks of rock and steel balls.

shear key  The removal of weak materials in a specified area and replacement with engineered fills to provide improved shear resistance and impermeability in the foundation of a dam.

shearing  Deformation resulting from stresses that cause, or tend to cause, contiguous parts of a body to slide relative to each other.

slurry  A suspension of fine solid particles in a liquid, not thick enough to consolidate as a sludge.

stockwork  A mineral deposit consisting of a three-dimensional network of planar to irregular veinlets closely enough spaced that the whole mass can be mined.

strike  The horizontal direction or trend of a geologic structure.

strip (or stripping) ratio  The tonnage or volume of waste material that must be removed to allow the mining of one tonne of ore in an open pit.

tailings  The material that remains after recoverable metals or minerals of economic interest have been removed from ore through milling.

tailings dam  A natural or man-made confined area suitable for depositing tailings.

tellurides  Ores of the precious metals (chiefly gold) containing tellurium, a semi-metallic, trigonal mineral.

thrust  An overriding movement of one crustal unit over another.

vein  A sheet-like body of minerals formed by fracture filling or replacement of host rock.

waste  Barren rock in a mine, or mineralized material that is too low in grade to be mined and milled at a profit.
SCHEDULE A -  
AUDIT COMMITTEE CHARTER

PURPOSE

The purpose of the Audit Committee is to assist the Board in fulfilling its oversight responsibilities in relation to (a) the external auditor, (b) the internal auditor, (c) financial reporting, (d) compliance with legal and regulatory requirements related to financial reporting and certain corporate policies, and (e) internal controls over financial reporting and disclosure controls.

COMPOSITION

The members of the Audit Committee and its Chair shall be appointed annually by the Board on the recommendation of the Nominating and Corporate Governance Committee. The Audit Committee shall consist of at least three and not more than six members. Each member will be independent and financially literate (as such terms are defined in National Instrument 52-110 – Audit Committees, as amended from time to time).

MEETINGS

The Audit Committee will meet at least four times annually and as many additional times as the Audit Committee deems necessary to carry out its duties effectively. The Audit Committee will meet privately with each of the external auditor, the internal auditor and management at each regularly scheduled meeting. Notice of every meeting will be given to each member, the Chair of the Board, the external auditor and the internal auditor.

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

The Audit Committee may invite such officers, directors and employees of the Corporation and such other persons as it may see fit from time to time to attend meetings of the Audit Committee and assist in the discussion and consideration of any matter.

A meeting of the Audit Committee may be convened by the Chair of the Audit Committee, a member of the Audit Committee, the external auditor or the internal auditor.

DUTIES AND RESPONSIBILITIES

Financial Reporting

1. Review and recommend to the Board for approval the audited annual financial statements and related management’s discussion and analysis.
2. Review and recommend to the Board for approval all interim financial statements and quarterly reports and related management’s discussion and analysis.
3. Before the release of financial statements and related disclosures to the public, obtain confirmation from the CEO and CFO as to the matters addressed in the certifications required by the securities regulatory authorities.
4. Review and recommend to the Board for approval all other press releases containing financial information based upon the Corporation’s financial statements prior to their release.
5. Review and recommend to the Board for approval all other financial statements that require approval by the Board before they are released to the public, including financial statements for use in prospectuses or other offering or public disclosure documents and financial statements required by regulatory authorities.
6. Review status of significant accounting estimates and judgments (e.g., reserves) and special issues (e.g., major transactions, changes in the selection or application of accounting policies, off-balance sheet items, effect of regulatory and financial initiatives).
7. Review management’s assessment and management of financial risks (e.g., hedging, insurance, debt).
8. Review any litigation, claim or other contingency that could have a material effect on the financial statements.
9. Discuss with the external auditor the quality, not just the acceptability, of the Corporation’s accounting principles as applied in its financial reporting.

10. Discuss with the external auditor any (i) difference of opinion with management on material auditing or accounting issues and (ii) any audit problems or difficulties experienced by the external auditor in performing the audit.

11. Discuss with management and the external auditor any significant financial reporting issues considered and the method of resolution.

External Auditor

12. Recommend to the Board the external auditor to be nominated for appointment or re-appointment by the shareholders.

13. Evaluate the external auditor’s qualifications, performance and independence.

14. Review the Corporation’s policies for hiring employees and former employees of the external auditor.

15. Review and approve the external auditor’s plans for the annual audit and interim reviews including the auditor’s fees.

16. Review and pre-approve all non-audit service engagement fees and terms in accordance with applicable law.

17. Consider any matter required to be communicated to the Audit Committee by the external auditor under applicable generally accepted auditing standards, applicable law and listing standards, including the auditor’s report to the Audit Committee (and management’s response thereto).

18. Require, in accordance with applicable law, that the external auditor report directly to the Audit Committee.

Internal Auditor

19. Review and approve the appointment or removal of internal auditor.

20. Review and approve the mandate of internal auditor and the scope of the internal auditor’s annual work plan.

21. Require that the internal auditor report directly to the Audit Committee.

22. Review significant audit findings and status updates on recommendations.

23. Review the internal auditor’s ongoing assessments of the Corporation’s business processes and system of internal controls.

24. Review the effectiveness of the internal audit function.

Compliance

25. Review procedures adopted by the Corporation to ensure that all material statutory deductions have been withheld by the Corporation and remitted to the appropriate authorities.


27. Review with legal counsel any legal matters that could have a significant effect on the Corporation’s financial statements.

28. Review with legal counsel the Corporation’s compliance with applicable laws and regulations and inquiries received from regulators and governmental agencies to the extent they may have a material impact on the financial position of the Corporation.

29. Oversee procedures in the Code of Ethics Policy for (i) the receipt, retention and treatment of complaints regarding accounting, internal accounting controls or auditing matters and (ii) the confidential, anonymous submission by employees of concerns regarding such matters.

30. Review reports of compliance with the Corporation’s Financial Risk Management Policy and report to the Board thereon, and recommend to the Board any amendments to such policy.

31. Review and approve financial risk management programs.
Internal Controls and Disclosure Controls

32. Oversee management’s review of the adequacy of the internal controls that have been adopted by the Corporation to safeguard assets from loss and unauthorized use and to verify the accuracy of the financial records.

33. Review any special audit steps adopted in light of material control deficiencies.

34. Review the controls and procedures that have been adopted by the Corporation to confirm that material information about the Corporation and its subsidiaries that is required to be disclosed under applicable law or stock exchange rules is disclosed.

Other

35. Review a report, at least annually, from the Reserves Committee on the Corporation’s mineral reserves and resources.

36. Review and pre-approve all proposed related party transactions and situations involving a director's, a senior officer's or an affiliate's potential or actual conflict of interest that are not required to be dealt with by an independent committee pursuant to securities law rules, other than routine transactions and situations arising in the ordinary course of business, consistent with past practice.

37. Review the appointment of the CFO and review with the CFO the qualifications of new key financial executives involved in the financial reporting process.

38. In conjunction with Human Resources and Compensation Committee, review succession plans for the CFO and the Controller.

39. Review on an annual basis expenses submitted for reimbursement by the CEO.

40. Provide orientation for new members and continuing education opportunities for all members to enhance their expertise and competencies with finance and accounting.

REPORTING

The Audit Committee will report regularly to the Board on all other significant matters it has addressed and with respect to such other matters that are within its responsibilities.

REVIEW AND EVALUATION

The Audit Committee will annually review and evaluate the adequacy of its mandate and recommend any proposed changes to the Nominating and Corporate Governance Committee. It will also participate in an annual performance evaluation by the Nominating and Corporate Governance Committee.

CHAIR

Each year, the Board will appoint one member to be Chair of the Audit Committee. If, in any year, the Board does not appoint a Chair of the Audit Committee, the incumbent Chair will continue in office until a successor is appointed.

REMOVAL AND VACANCIES

Any member of the Audit Committee may be removed or replaced at any time by the Board and shall cease to be a member of the Audit Committee upon ceasing to be a director. The Board may fill vacancies on the Audit Committee by appointment from among its members. If and whenever a vacancy shall exist on the Audit Committee, the remaining members may exercise all its powers so long as a quorum remains in office. Subject to the foregoing, each member of the Audit Committee shall remain as such until the next annual meeting of shareholders after that member's election.

ACCESS TO OUTSIDE ADVISORS

The Audit Committee may, without seeking approval of the Board or management, select, retain, terminate, set and approve the fees and other retention terms of any outside advisor, as it deems appropriate. The Corporation will provide for appropriate funding, for payment of compensation to any such advisors, and for ordinary administrative expenses of the Audit Committee.