NEWS RELEASE

June 4, 2019 **TSX: JAG**
FOR IMMEDIATE RELEASE

Jaguar Mining Announces Additional Near-Term Production Growth Opportunities and Corrego Brandão Project's Auger Drilling Extends Key Intersection to 21.32 g/t Au over 12.8m

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Toronto, June 4, 2019 – Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG) is pleased to announce additional near-term production growth opportunities have been identified following positive exploration results at both the Turmalina and Pilar Gold mines. In addition, the recently announced Corrego Brandão Exploration Project has continued Auger drilling which has resulted in an extension the Discovery Auger Hole intersection. These opportunities are expected to support the Jaguar strategy for organic growth by filling the Company's operating processing plants to capacity.

Key Growth Opportunities

- **Pilar: Access development in the lowermost operational level provides growth potential from higher-grade BIF Hosted Mineralization within the Sao Jorge Syncline over a 40m strike length**

- **Turmalina: New potential fourth mining area based on a higher-grade shoot on Orebody B that has been re-defined following recent exploration success at Orebody C-Central (refer news release February 27 and May 14, 2019)**

- **Corrego Brandão Exploration Project: Discovery Auger Hole intersection extended to 21.32gt Au over 12.8m (including 60.08 g/t Au over 3.0m) – refer table 1 from previously reported 38.71 g/t Au over 5.80 m (refer new release May 14, 2019)**

Ben Guenther Interim CEO, Jaguar Mining commented: "The exploration results highlighted today support Jaguar's organic growth strategy to double the Company's gold production within five years by filling current operating processing plants to capacity while also reducing unit costs."

"Pilar initiated a program in 2019 to develop and drill the Sao Jorge, SW, Torre, and BA structures, which are all close to mine infrastructure and have historical production. Exploration activities are focused on increasing ounces/vertical-meter that will allow for increased production rates and mining flexibility. Pilar has accessed gold mineralization within the Sao Jorge Syncline, close to existing operational areas and the main ramp. Intercept grades have ranged between 2.8 to 12.8 g/t. The Sao Jorge Structure was previously mined by open pit and there is evidence that mineralization extends from surface to the deepest level currently being mined approximately 800m vertically below."

"Corrego Brandão has near-surface open pit potential to add feedstock to the Caeté processing plant. A shallow auger and trenching program are well underway. The depth, thickness and grade of the intercept received to date is very encouraging. Once completed, we will be positioned to fast track the evaluation and permitting process while we fully evaluate the size and grade potential of the project."

"At Turmalina, following successful results in Orebody C-Central earlier this year, a re-evaluation of Orebody B identified an additional opportunity to increase near-term economic grade production from a possible forth mining area. Orebody B can be accessed from existing Orebody A infrastructure. Development of Orebody B could start to positively impact production from 2020 onward and supports our organic production growth strategy."

Jon Hill, Expert Advisor, Geology and Exploration, commented: “We are pleased with encouraging results that have identified additional opportunities to increase production growth. Lateral exploration at both the Pilar and Turmalina Operations via both drilling and development continues to return positive results.”

“We have confirmed the extension of the previously un-exploited gold mineralization at Pilar within the Sao Jorge Syncline from surface to the deepest operational levels in the mine. These results highlight the potential already exhibited by the ongoing access and evaluation of the BA, Torre, and SW mineralization throughout the mine.”

“At Turmalina, the knowledge gained from detailed geological structural mapping programs, both in-mine and more regionally on surface, enabled constrained plunge controls on high grade mineralization on an orebody, mine and regional scale. These constrained parameters have been applied to drill targeting and the re-evaluation of existing drilling and development channel sampling data with immediate success on the C-Orebodies and now Orebody B.”

“Corrego Brandão Project results are highly encouraging, and we look forward to systematically exploring this emerging new project as a priority as part of the company’s high-quality project pipeline.”

Pilar Exploration Highlights - Sao Jorge Syncline

- The Sao Jorge Syncline occurs some 150m west along strike within the same structure and BIF package which hosts the currently exploited Pilar orebodies (BA, BF and BF2 which are associated with antiforms). Please refer to figure 1A, 1B, 1C, 2, and 3.

- The Sao Jorge Syncline was previously exploited at surface via open pit by Jaguar early in the Pilar Mine´s history but has to date not been exploited from underground. The structure hosting Sao Jorge as well as the other currently defined and producing orebodies extends further west where the BIF package is also mineralized along the trend known as SW.

- The Mineralization within the plunging Sao Jorge Syncline is similar in nature to the epigenetic BIF hosted replacement style of mineralization seen in the antiformal related BIF hosted orebodies further along strike, (BF2, BF and BA).

- Development channel sampling has been undertaken where the mineralized BIF has been partially exposed over a strike length of some 40m with potentially economic grades and thicknesses reported. Estimated average true widths for the mineralized BIF intersected in the development achieved to date through the Sao Jorge Zone is 3-5m.

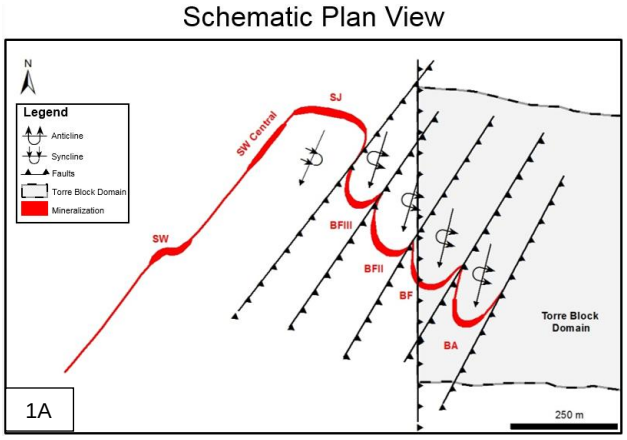
- Preliminary channel sampling and diamond drilling results are presented below in figure 4.

- The best channel sampling intersection result reported to date is 12.78 g/t Au over 3.04m (close to true width).

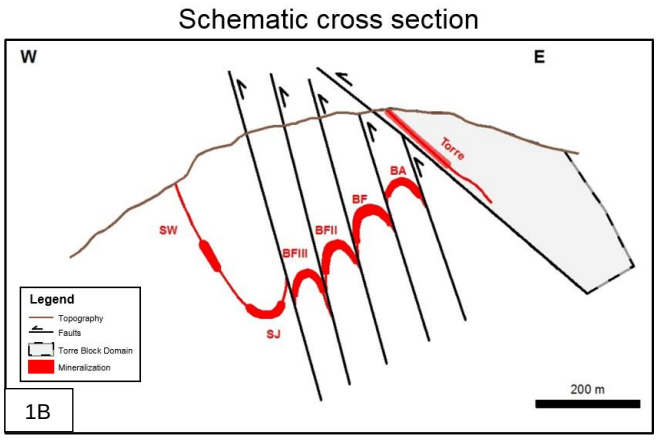
- The best diamond drilling intersection sampling result reported to date is 11.22 g/t Au over 2.05m (partial BIF intersection – true width unknown)

Definitions: ETW – estimated true width, g/t Au – grams per tonne gold, m – metres, Grade (g/t Au) x Thickness (m) = GM (gram – meters)

Figure 1A, 1B, 1C. Pilar Mine – Schematic Plan (A), Section (B) and Oblique (C) Views showing the relative geological settings and location of Pilar Orebodies BA, BF, BF2, Torre, SW and Sao Jorge.



Schematic map showing the main structures in the Pilar mine. The Torre block that hosts the Torre mineralization is thrust over the Pilar domain.



Schematic cross section showing the main structures in the Pilar mine and the BA, BF, and BF2 sequence of BIF hosted orebodies within antiforms. At Torre mineralization is associated will fine grained arsenopyrite disseminated with sericite-quartz

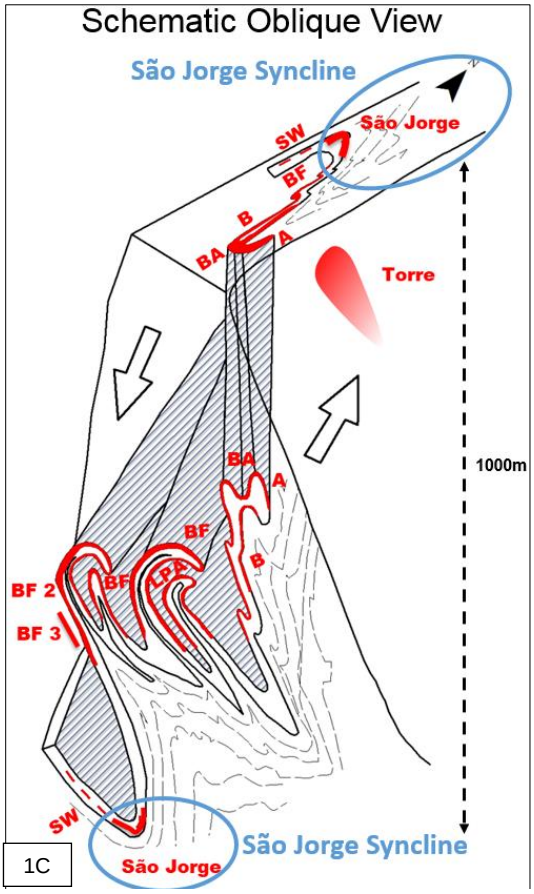


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Figure 2. Pilar Long Section showing location of Sao Jorge Syncline at surface and close to 13 level where it was intersected by development relative to the BIF Orebodies (BF2, BF, and BA).

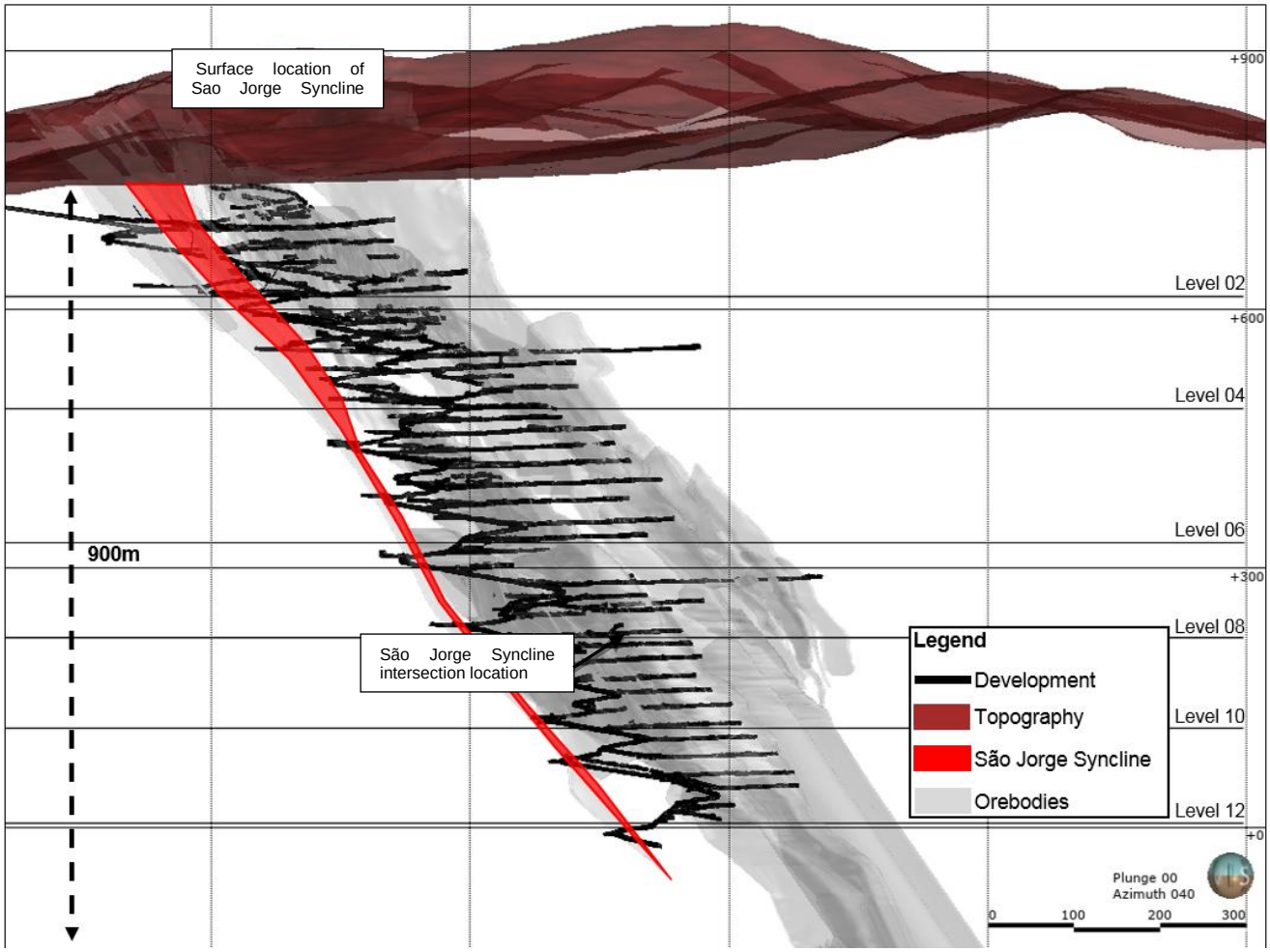

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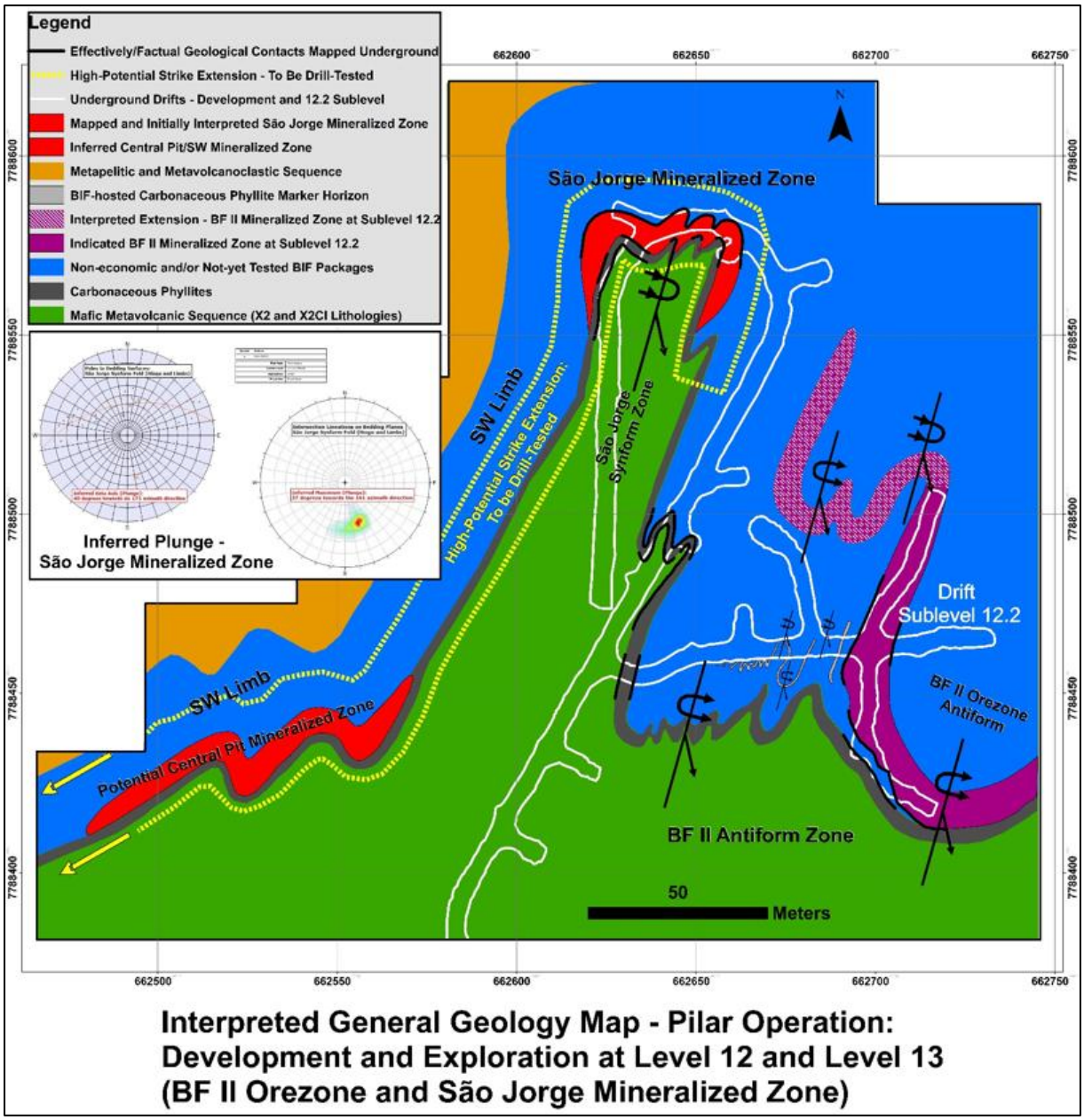
Figure 3. Plan View showing the location of the Sao Jorge Syncline at Pilar Mine relative to the SW trend, the BF2, BF and BA orebodies and current mine operational areas on levels 12- 13.



Interpreted General Geology Map - Pilar Operation: Development and Exploration at Level 12 and Level 13 (BF II Orezone and São Jorge Mineralized Zone)

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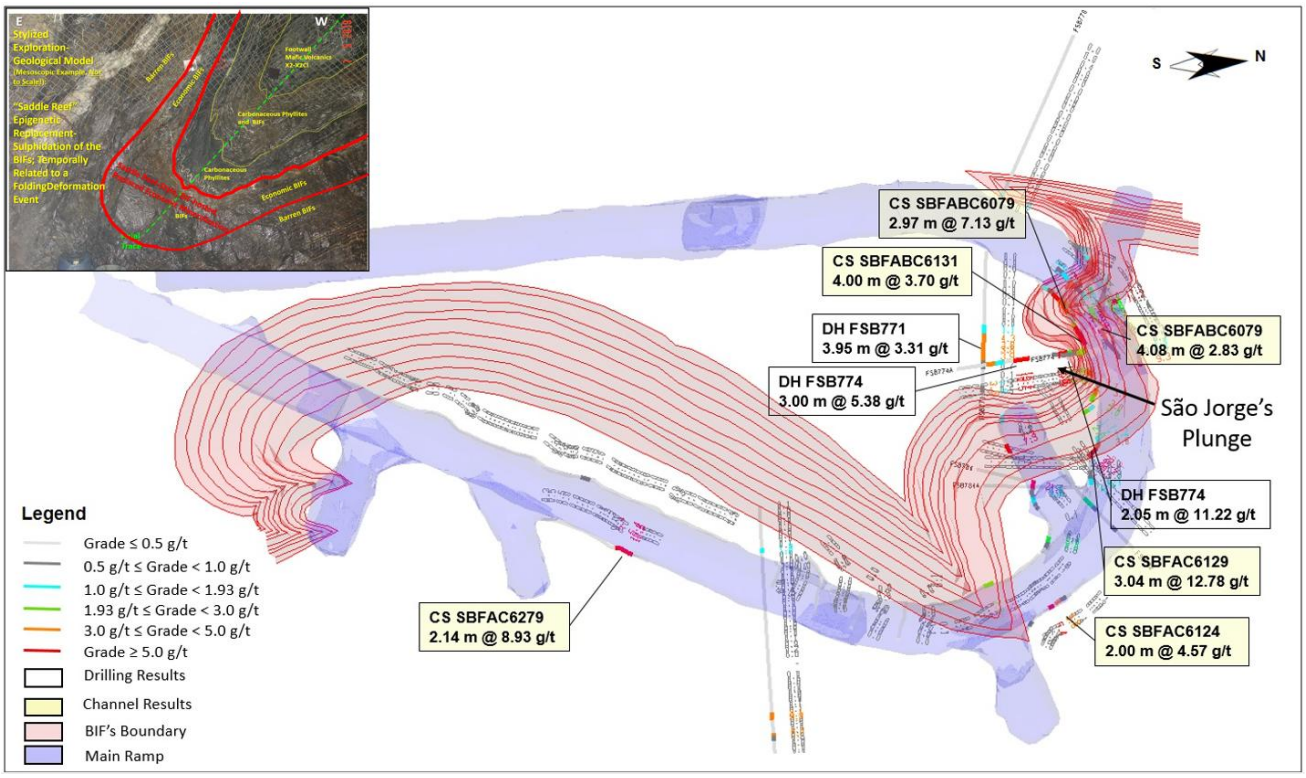
Figure 4. Plan showing development channel sampling, diamond drill hole location and assay results.



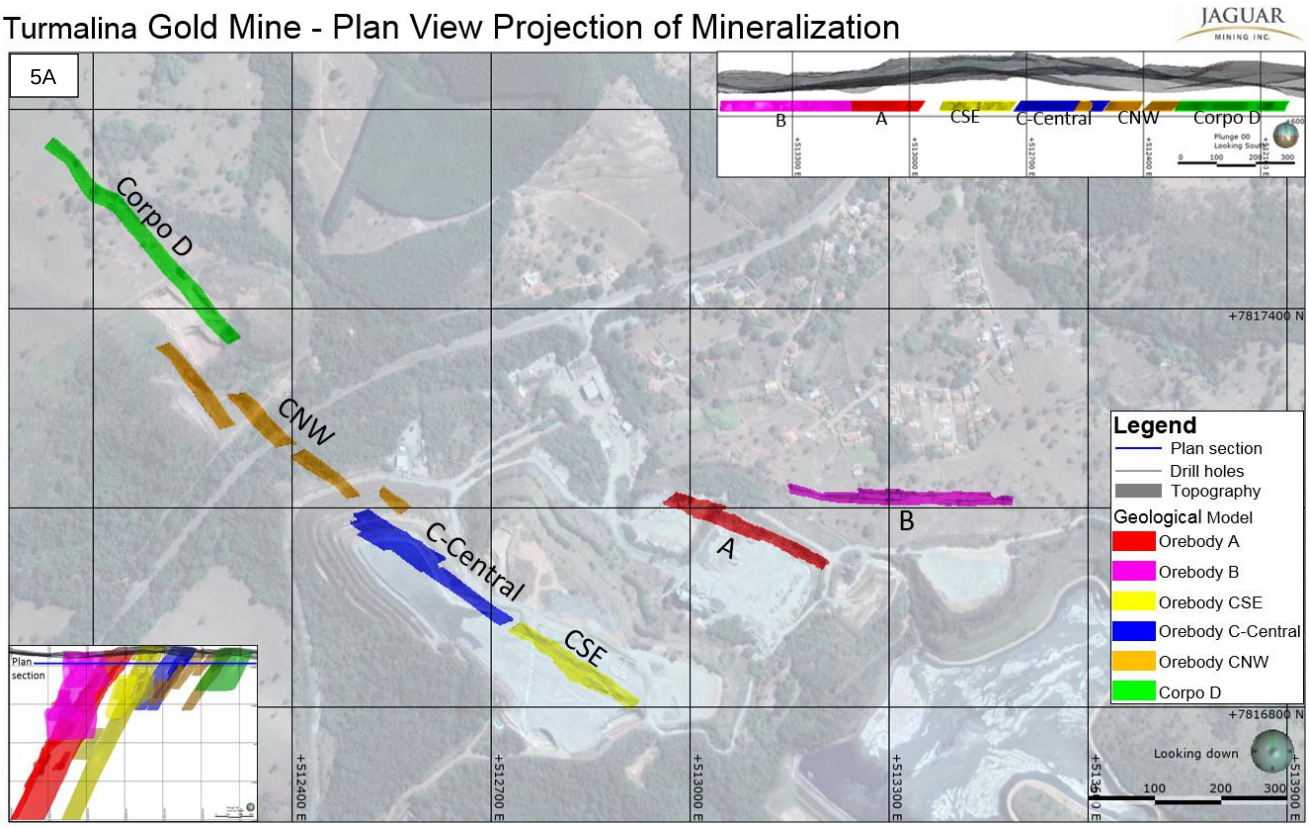
Turmalina Exploration Highlights – Orebody B

- The newly re-defined higher grade payshoot is plunge persistent and extends some 100m along strike, some 750m in vertical extent, has an average width of 3-4m and an average grade of 4.5 g/t. The plunge of the higher grade shoot approximates that of the Orebody A and Orebody C higher grade shoots.

- This area is being evaluated as potentially a forth, near term production area (2020) as the high grade shoot is within 50-100m from Orebody A development from which it can be accessed and already has existing ventilation infrastructure from prior mining activities. (refer news release May 28, 2019).

- Orebody B Measured Mineral Resources totaled 353 kt at 3.34 g/t containing 38,000 ounces and Indicated Mineral Resources totaled 192 kt at 4.26 g/t containing 26,000 ounces at December 31, 2018. Orebody B, which is outside the current mine plan and does not have Proven and Probable Reserves, has the potential to provide increased mine flexibility and production capability in 2019. (Refer to the Press Release dated March 1, 2019 for more information on Mineral Reserves and Mineral Resources.)

Figure 5A and 5B. Plans showing relative location of Turmalina Orebodies A, B, and C-SE, C-Central and C-NW at surface, and Orebody Wireframes projected to surface.



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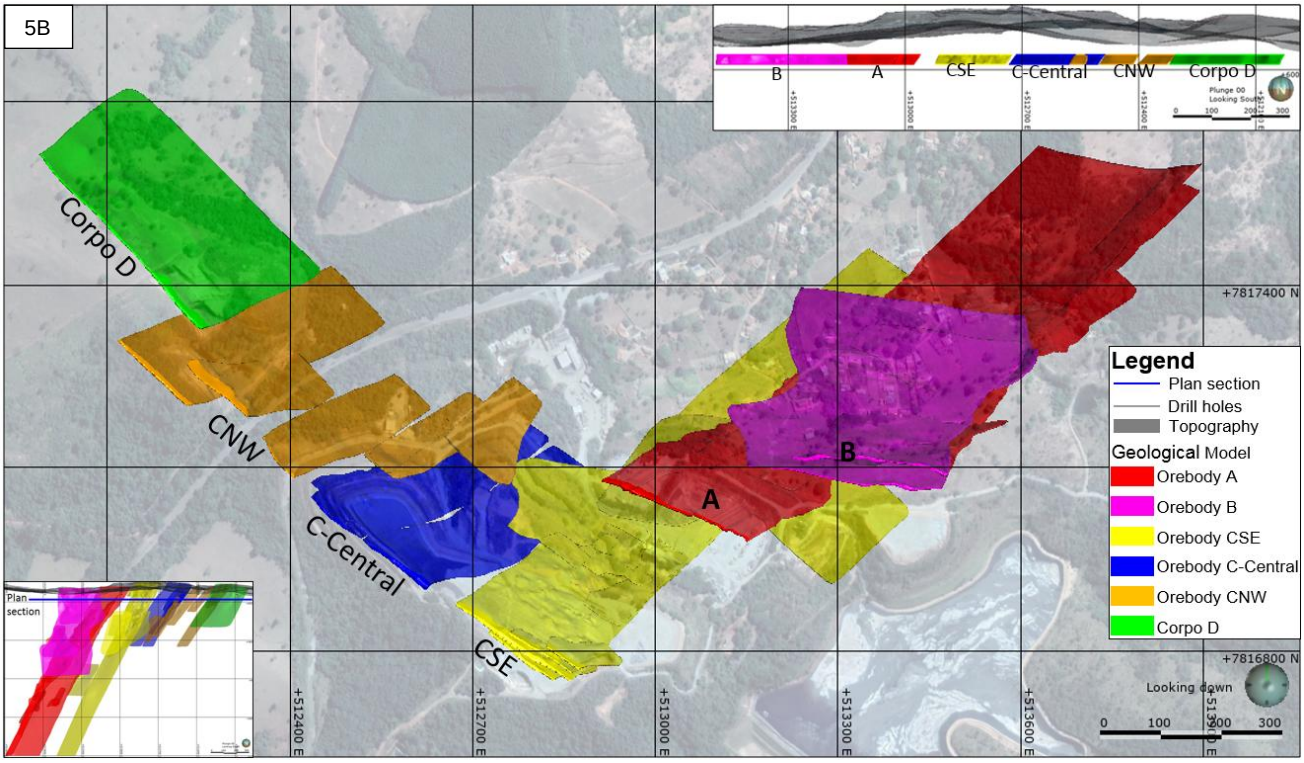


Figure 6A and 6B. Long Sectional Grade Block Model (A) and Grade – Thickness Views (B) of Orebody B showing position and extent of higher grade shoot and plunge control direction.

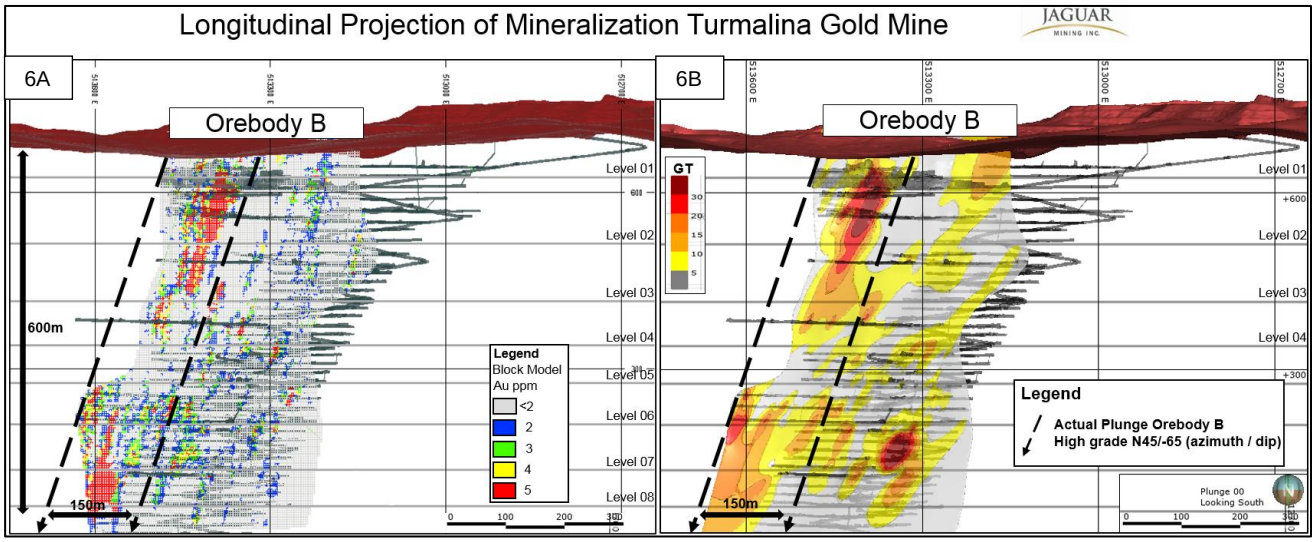
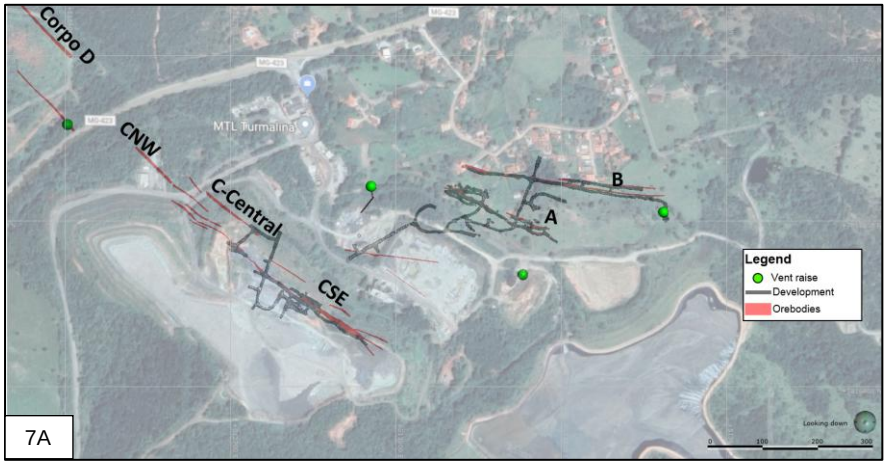
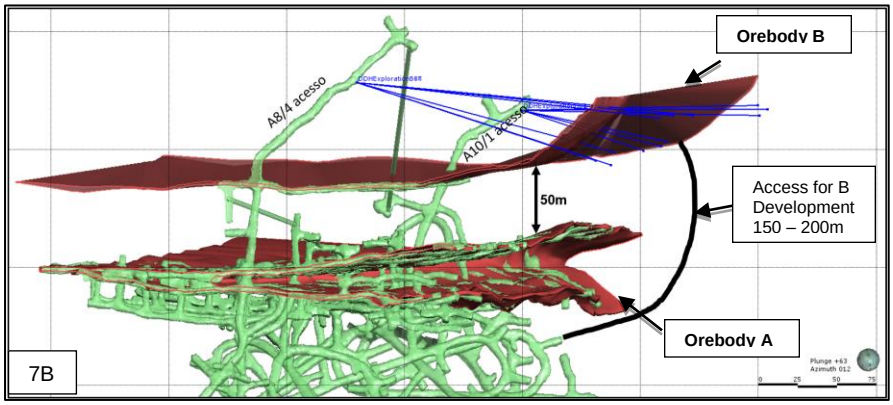


Figure 7A and 7B. Plan view of Turmalina showing the position of Orebody B relative to Orebodies A and C, C-SE, C-Central and C - NW and possible mining access options from development relative to Orebody A. Figure 7A shows mine development at level 3 showing the proximity of Orebody B to Orebody A and showing location of ventilation raises on both orebodies. Figure 7B shows a closer view of the position of Orebody B in the hanging wall to and relative to Orebody A and showing a potential access drift position from Orebody A to Orebody B





Corrego Brandão Highlights

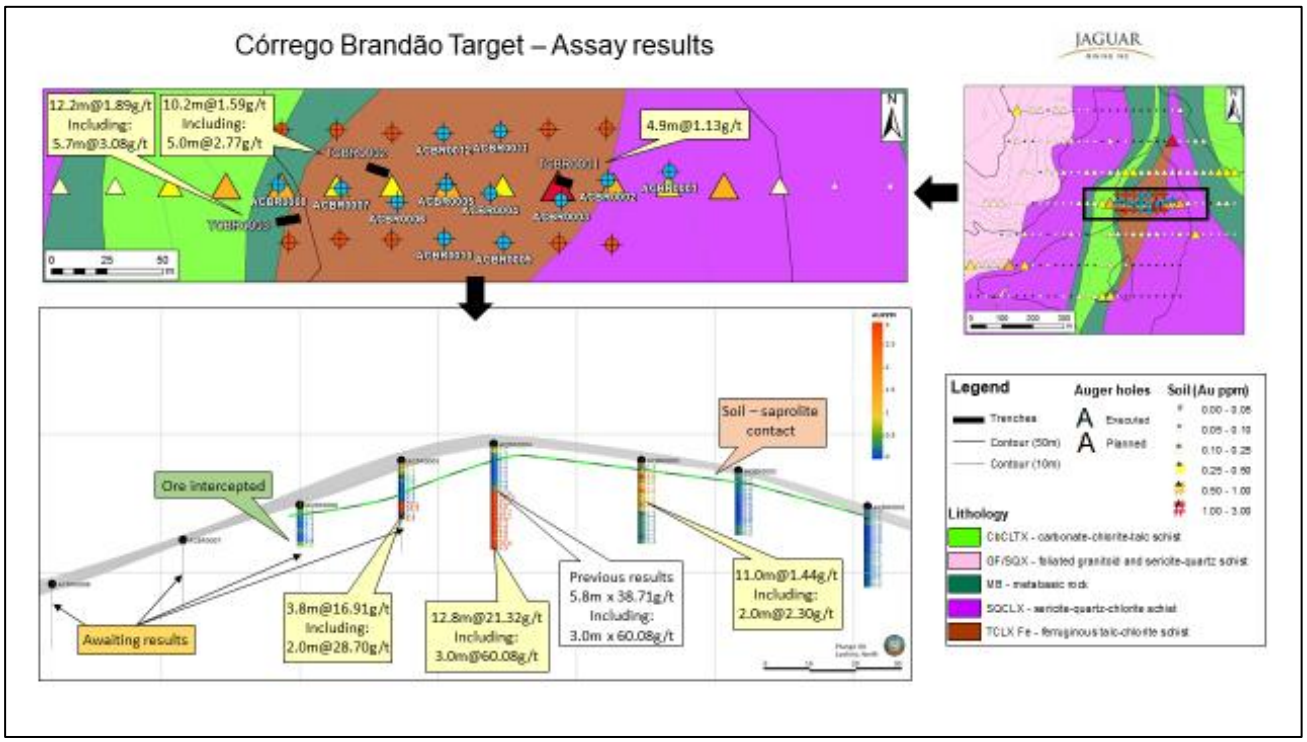
- Discovery Shallow Auger drilling intercept previously reported (May 14, 2019) of 38.71 g/t Au over 5.80m (including 60.08 g/t Au over 3.0m) was extended to 21.32 g/t Au over 12.8m. (Including 60.08 g/t Au over 3.0m).

- To date a total of 12, vertical 25m spaced Auger holes have been completed at the project with a combined meterage of 198m from a planned program of 22 holes. Results are pending.

Table 1. Exploration Results. Corrego Brandão Target – Auger Drill Holes

Hole	Sample #	From	To	Length	Au (ppm)	GT
ACBR0003	1	0	1	1	1.20	1.2
	2	1	2	1	0.28	0.3
	3	2	3	1	1.55	1.6
	4	3	4	1	3.04	3.0
	5	4	4.3	0.3	0.76	0.2
	6	4.3	4.8	0.5	0.55	0.3
	7	4.8	6	1.2	1.06	1.3
	8	6	7	1	2.56	2.6
	9	7	8	1	1.23	1.2
	10	8	9	1	0.81	0.8
	11	9	10	1	2.17	2.2
	12	10	11	1	1.23	1.2
ACBR0004	12	10	11	1	17.55	17.6
	13	11	12	1	131.50	131.5
	14	12	13	1	31.20	31.2
	15	13	14	1	4.78	4.8
	16	14	15	1	13.70	13.7
	17	15	15.8	0.8	32.20	25.8
	18	15.8	17	1.2	8.79	10.5
	19	17	18	1	6.36	6.4
	20	18	19	1	4.04	4.0
	21	19	20	1	3.53	3.5
	22	20	20.7	0.7	2.64	1.8
	23	20.7	22	1.3	10.85	14.1
	24	22	22.8	0.8	9.89	7.9
ACBR0005	10	9	9.8	0.8	29.00	23.2
	11	9.8	11	1.2	28.50	34.2
	12	11	12	1	0.15	0.2
	13	12	12.8	0.8	8.38	6.7

Figure 8. Córrego Brandão Target - Exploration Results.



Qualified Person

Scientific and technical information contained in this press release has been reviewed and approved by Jonathan Victor Hill, BSc (Hons) (Economic Geology - UCT), FAUSIMM, Senior Expert Advisor Geology and Exploration to the Jaguar Mining Management Committee, who is also an employee of Jaguar Mining Inc., and is a "qualified person" as defined by National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("NI 43-101").

Quality Control

Jaguar continues to use a quality-control program that includes insertion of blanks and commercial standards in order to ensure best practice in sampling and analysis.

HQ, NQ, and BQ size drill core is sawn in half with a diamond saw. Samples are selected for analysis in standard intervals according to geological characteristics such as lithology and hydrothermal alteration. All diamond drill hole collars are accurately surveyed using a Total Station instrument and down-hole deviations are surveyed using non-magnetic equipment (SPT Stockholm Precision Tools with GyroMaster™ Solid State North Seeker) and a Reflex Gyrosmart 642.

Mean grades are calculated using a variable lower grade cut-off (generally 0.5g/t Au). No upper gold grade cut has been applied to the data.

Half of the sawed sample is forwarded to the analytical laboratory for analysis while the remaining half of the core is stored in a secure location. Auger, trench and drill core samples from exploration drillholes, auger holes and trenches are transported in securely sealed bags and sent for physical preparation to the independent ALS Brazil (subsidiary of ALS Global) laboratory located in Vespasiano, Minas Gerais, Brazil.

The analysis is conducted at ALS Global's respective facilities (fire assay are conducted by ALS Global in Lima, Peru, and multi-elementary analysis are conducted by ALS Global in Vancouver, Canada). ALS has accreditation in a global management system that meets all requirements of international standards ISO/IEC 17025:2005 and ISO 9001:2015. All major ALS geochemistry analytical laboratories are accredited to ISO/IEC 17025:2005 for specific analytical procedures.

The drilling results presented on this news release are from drill holes completed by Jaguar Mining Inc´s own drilling machines. The infill samples are transported for physical preparation and analysis in securely sealed bags to the Jaguar in-house laboratory located at the Roça Grande Mine, Caeté, Minas Gerais. 10 – 15% of samples are submitted to ALS for check assay analysis. Please refer to Appendices 2 and 3 for check-assay results.

For a complete description of Jaguar's sample preparation, analytical methods and QA/QC procedures, please refer to the *"Technical Report on the Roça Grande and Pilar Operations, Minas Gerais State, Brazil*", a copy of which is available on the Company's SEDAR profile at www.sedar.com.

The Iron Quadrangle

The Iron Quadrangle has been an area of mineral exploration dating back to the 16th century. The discovery in 1699–1701 of gold contaminated with iron and platinum-group metals in the southeastern corner of the Iron Quadrangle gave rise to the name of the town Ouro Preto (Black Gold). The Iron Quadrangle contains world-class multi-million-ounce gold deposits such as Morro Velho, Cuiabá, and São Bento. Jaguar holds the second largest gold land position of a gold producer in the Iron Quadrangle with just over 25,000 hectares.

About Jaguar Mining Inc.

Jaguar Mining Inc. is a Canadian-listed junior gold mining, development, and exploration company operating in Brazil with three gold mining complexes and a large land package with significant upside exploration potential from mineral claims covering an area of approximately 64,000 hectares. The Company's principal operating assets are located in the Iron Quadrangle, a prolific greenstone belt in the state of Minas Gerais and include the Turmalina Gold Mine Complex and Caeté Mining Complex (Pilar and Roça Grande Mines, and Caeté Plant). The Company also owns the Paciência Gold Mine Complex, which has been on care and maintenance since 2012 and the Roça Grande Mine has been on care and maintenance since April 2018. Additional information is available on the Company's website at www.jaguarmining.com.

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Forward-Looking Statements

Certain statements in this news release constitute "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking statements and information are provided for the purpose of providing information about management's expectations and plans relating to the future. All of the forward-looking information set forth in this news release is qualified by the cautionary statements below and those made in our other filings with the securities regulators in Canada. Forward-looking information contained in forward-looking statements can be identified by the use of words such as "are expected", "is forecast", "is targeted," "approximately," "plans," "anticipates," "projects," "continue," "estimate," "believe," or variations of such words and phrases or statements that certain actions, events or results "may," "could," "would," "might," or "will" be taken, occur or be achieved. All statements, other than statements of historical fact, may be considered to be or include forward-looking information. These forward-looking statements are made as of the date of this news release and the dates of technical reports, as applicable. This news release contains forward-looking information regarding potential and, among other things, expected future mineral resources, potential mineral production opportunities, geological and mineral exploration statistics, ore grades, current and expected future assay results, and definition/delineation/exploration drilling at the Pilar Gold Mine and the Turmalina Gold Mine in Brazil, as well as forward-looking information regarding costs of production, capital expenditures, costs and timing of the development of projects and new deposits, success of exploration, development and mining activities, capital requirements, project studies, mine life extensions, and continuous

improvement initiatives. The Company has made numerous assumptions with respect to forward-looking information contained herein, including, among other things, assumptions about the estimated timeline and for the development of the drill program at the Pilar Gold Mine (and its expanded exploration footprint) and the Turmalina Gold Mine; its mineral properties; the supply and demand for, and the level and volatility of the price of, gold; the accuracy of reserve and resource estimates and the assumptions on which the reserve and resource estimates are based; the receipt of necessary permits; market competition; ongoing relations with employees and impacted communities; and political and legal developments in any jurisdiction in which the Company operates being consistent with its current expectations including, without limitation, the impact of any potential power rationing, tailings facility regulation, exploration and mine operating licenses and permits being obtained and renewed and/or there being adverse amendments to mining or other laws in Brazil and any changes to general business and economic conditions. Forward-looking information involves a number of known and unknown risks and uncertainties, including among others: the risk of Jaguar not meeting its plans regarding its operations and financial performance; uncertainties with respect to the price of gold, labor disruptions, mechanical failures, increase in costs, environmental compliance and change in environmental legislation and regulation, weather delays and increased costs or production delays due to natural disasters, power disruptions, procurement and delivery of parts and supplies to the operations; uncertainties inherent to capital markets in general (including the sometimes volatile valuation of securities and an uncertain ability to raise new capital) and other risks inherent to the gold exploration, development and production industry, which, if incorrect, may cause actual results to differ materially from those anticipated by the Company and described herein. In addition, there are risks and hazards associated with the business of gold exploration, development, mining and production, including without limitation environmental hazards, tailings dam failures, industrial accidents and workplace safety problems, unusual or unexpected geological formations, pressures, cave-ins, flooding, chemical spills, and gold bullion thefts and losses (and the risk of inadequate insurance, or the inability to obtain insurance, to cover these risks). Although we have attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information.