



**MANAGEMENT'S DISCUSSION AND ANALYSIS**

**FOR THE THIRD QUARTER ENDED  
SEPTEMBER 30, 2017**

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## MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE THIRD QUARTER ENDED SEPTEMBER 30, 2017

*This Management's Discussion and Analysis ("MD&A") should be read in conjunction with the condensed interim consolidated financial statements for the three and nine months ended September 30, 2017, and related notes thereto which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board (IASB). For further information on Jaguar Mining Inc., reference should be made to its public filings (including its most recently filed annual information form ("AIF") which is available on SEDAR at [www.sedar.com](http://www.sedar.com)). Information on risks associated with investing in the Company's securities and technical and scientific information under National Instrument 43-101 concerning the Company's material properties, including information about mineral resources and reserves, are contained in the Company's most recently filed AIF and technical reports.*

*All amounts included in this MD&A are in United States dollars ("\$"), unless otherwise specified. References to C\$ are to Canadian dollars and R\$ are to Brazilian Reals. This report is dated as at November 7, 2017.*

*Where we say "we," "us," "our," the "Company" or "Jaguar," we mean Jaguar Mining Inc. or Jaguar Mining Inc. and/or one or more or all of its subsidiaries, as it may apply. The following abbreviations are used to describe the periods under review throughout this MD&A:*

Abbreviation	Period	Abbreviation	Period
<b>YTD 2017</b>	January 1, 2017 – September 30, 2017	<b>YTD 2016</b>	January 1, 2016 – September 30, 2016
<b>Q1 2017</b>	January 1, 2017 – March 31, 2017	<b>Q1 2016</b>	January 1, 2016 – March 31, 2016
<b>Q2 2017</b>	April 1, 2017 – June 30, 2017	<b>Q2 2016</b>	April 1, 2016 – June 30, 2016
<b>Q3 2017</b>	July 1, 2017 – September 30, 2017	<b>Q3 2016</b>	July 1, 2016 – September 30, 2016

### OUR BUSINESS

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. The Company's principal operating assets are located in the state of Minas Gerais and include the Turmalina Gold Mine Complex ("MTL") and Caeté Gold Mine Complex ("MSOL"). The Company also owns the Paciência Gold Mine Complex ("Paciência"), which has been on care and maintenance since 2012.

Led by a proven and experienced senior management team in Brazil, our operating philosophy focuses on creating excellent shareholder value through the execution of a safe and sustainable operating plan, prudent cost management practices, generating free cash flow, and increasing Mineral Reserves and Resources through exploration growth projects.

We benefit from the exploration and development of the Company's existing brownfield land package and from mineral concessions comprising approximately 26,000 hectares, proximal to current operations, in the Iron Quadrangle mining district of Brazil, a prolific greenstone belt located near the city of Belo Horizonte in the State of Minas Gerais. In addition, approximately 35,000 hectares in the State of Ceará, where the Company's Pedra Branca Project is located, provide future upside potential. On September 17, 2017, the Company announced that it had entered into an accelerated earn-in agreement with Avanco Resources Limited ("Avanco"), pursuant to which Avanco will acquire a 100% interest in Gurupi. The Company may consider the acquisition, exploration, development, and operation of other gold properties.

## Q3 2017 FINANCIAL & OPERATING SUMMARY

(\$ thousands, except where indicated)	For the three months ended		For the nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
<b>Financial Data</b>				
Revenue	\$ 26,062	\$ 33,618	\$ 78,606	\$ 90,278
Operating costs	16,116	16,191	53,614	51,657
Depreciation	5,898	9,509	17,271	25,599
Gross profit	4,048	7,918	7,721	13,022
Gross profit (excluding depreciation) <sup>1</sup>	9,946	17,427	24,992	38,621
Loss on change in fair value of notes payable	-	31,672	-	77,616
Net loss	(7,664)	(31,648)	(18,861)	(73,515)
Per share ("EPS")	(0.02)	(0.22)	(0.06)	(0.60)
EBITDA <sup>1</sup>	(507)	(17,802)	3,949	(41,710)
Adjusted EBITDA <sup>1,2</sup>	6,094	14,394	14,020	30,299
Adjusted EBITDA per share <sup>1</sup>	0.02	0.10	0.04	0.25
Cash operating costs (per ounce sold) <sup>1</sup>	809	645	867	713
All-in sustaining costs (per ounce sold) <sup>1</sup>	1,168	1,011	1,249	1,092
Average realized gold price (per ounce) <sup>1</sup>	1,276	1,328	1,250	1,251
Cash generated from operating activities	7,509	9,353	9,583	29,314
Adjusted operating cash flow <sup>1</sup>	6,076	11,275	15,002	23,289
Free cash flow <sup>1</sup>	2,212	2,972	(7,118)	9,055
Free cash flow (per ounce sold) <sup>1</sup>	108	117	(113)	125
Sustaining capital expenditures <sup>1</sup>	4,624	6,370	15,233	19,246
Non-sustaining capital expenditures <sup>1</sup>	1,138	1,152	3,401	2,781
Total capital expenditures	5,763	7,522	18,634	22,027

<sup>1</sup> Average realized gold price, sustaining and non-sustaining capital expenditures, cash operating costs and all-in sustaining costs, adjusted operating cash flow, free cash flow, EBITDA and adjusted EBITDA, adjusted EBITDA per share, and gross profit (excluding depreciation) are non-IFRS financial performance measures with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A.

<sup>2</sup> Adjusted EBITDA excludes non-cash items such as impairment and write downs. For more details refer to the Non-IFRS Performance Measures section of the MD&A.

	For the three months ended		For the nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
<b>Operating Data</b>				
Gold produced (ounces)	20,781	25,782	62,842	71,201
Gold sold (ounces)	20,422	25,316	62,909	72,167
Primary development (metres)	932	1,353	2,666	4,371
Secondary development (metres)	922	1,182	3,292	3,545
Definition, infill, and exploration drilling (metres)	11,592	6,749	34,525	28,126

## **Financial Summary**

### ***Revenue, Operating Costs, Gross Profit, Net Income (Loss), and Adjusted EBITDA***

- Gold ounces sold for the three and nine months ended September 30, 2017 were 20,422 ounces and 62,909 ounces, respectively, compared with 25,316 ounces and 72,167 ounces sold for the comparative periods due to lower production.
- Revenue for Q3 2017 decreased 22% to \$26.1 million, compared with \$33.6 million in Q3 2016, due to 19% lower sales.
- Operating costs for Q3 2017 remained stable with the same period of 2016 at \$16.1 million.
- Gross profit for the three and nine months ended September 30, 2017 was \$4.0 million and \$7.7 million, respectively, compared to \$7.9 million and \$13.0 million for Q3 2016 and YTD 2016, respectively.
- Net loss for the three and nine months ended September 30, 2017 was \$7.7 million and \$18.9 million, respectively, compared to net loss of \$31.6 million and \$73.5 million for the comparative 2016 periods, mainly reflecting the impairment of the Gurupi asset.
- Adjusted EBITDA for Q3 2017 was \$6.1 million compared to \$14.3 million for Q3 2016, while adjusted EBITDA for the first nine months of 2017 was \$14.0 million compared to \$30.3 million for the first nine months of 2016.

### ***Cash Operating Costs, All-In-Sustaining Costs ("AISC"), Capital Expenditures, and Adjusted Operating Cash Flow***

- Cash operating costs increased 25% to \$809 per ounce of gold sold for Q3 2017, compared to \$645 per ounce sold during Q3 2016, mainly due to lower production at the Turmalina mine. Cash operating costs have decreased 6% in Q3 2017 compared to \$857 per ounce sold in Q2 2017 due to the cost cutting measures.
- AISC increased 16% to \$1,168 per ounce of gold sold in Q3 2017, compared to \$1,011 per ounce sold during Q3 2016, largely as a result of lower production. AISC improved 8% in Q3 2017 compared to \$1,262 per ounces sold in Q2 2017.
- In Q3 2017, sustaining capital expenditures totaled \$4.6 million and focused on primary development and exploration drilling, compared to \$6.4 million in Q3 2016.
- Operating cash flow was \$7.5 million for Q3 2017, compared to \$9.4 million in Q3 2016. Adjusted operating cash flow was \$6.0 million in Q3 2017 and \$14.9 million for YTD 2017 based on operating cash flow adjusted for changes in working capital, compared to \$11.3 million and \$23.3 million for the comparative 2016 periods.
- Free cash flow was \$2.2 million for Q3 2017 based on operating cash flow less sustaining capital expenditures, compared to \$2.9 million in Q3 2016. Free cash flow was \$108 per ounce sold in Q3 2017 compared to \$117 in Q3 2016.

### ***Foreign Exchange***

- The average exchange rate during Q3 2017 declined 3% to R\$3.16 per US dollar compared to R\$3.25 per US dollar in Q3 2016. The closing exchange rate as at September 30, 2017 was R\$3.17 per US dollar compared to R\$3.26 per US dollar as at December 31, 2016. For every R\$0.20 movement in the Brazilian Real against the US dollar, the impact on the US dollar reported cash operating costs is approximately \$50 per ounce.

### ***Cash Position, Working Capital, Sprott Facility, and Private Placement***

- As at September 30, 2017, the Company had a cash balance of \$19.2 million, compared to a cash balance of \$20.7 million, as at June 30, 2017. During the third quarter, the Company received \$2 million from Avanco for the first installment of the Accelerated Earn-in Agreement signed for the Gurupi Project on September 17, 2017.
- In addition to the regular repayment of financing obligations of \$3.2 million during the quarter, the Company used the initial proceed from the Gurupi/Avanco transaction to make an additional debt repayment of \$2 million, for part of the high cost Brazilian debt, thus reducing the future debt servicing and improving the working capital.
- Working capital was \$23.2 million as at September 30, 2017 compared to \$11.3 million as at December 31, 2016 mainly due to the reclassification of Gurupi asset as Asset Held for Sale as part of current assets. Working capital is net of \$6.0 million in loans from Brazilian banks that are mature every six months and are expected to continue to be rolled forward. Adjusted working capital (excluding the reclassification of Gurupi) was \$5.9 million.

## Operational Summary

### *Tonnes Processed and Average Grade*

- Total processing was 213,000 tonnes in Q3 2017 (Q3 2016 – 231,000 tonnes) at an average head grade of 3.36 g/t (Q3 2016 – 3.83 g/t).
  - In Q3 2017, Turmalina processed 107,000 tonnes (Q3 2016 – 128,000 tonnes) at an average head grade of 3.10 g/t (Q3 2016 – 4.36 g/t). Increasing gold production from Orebody C, while the mining cycle is normalized in Orebody A and until access to lower Orebody C containing higher grades can be established, is expected to continue to impact consolidated grade in the short term.
  - Caeté processed 106,000 tonnes in Q3 2017 (Q3 2016 – 103,000 tonnes) at an average head grade of 3.62 g/t (Q3 2016 – 3.17 g/t). New record grade at Pilar Gold Mine (“Pilar”) of 3.77 g/t Au for the quarter as mining activity increased into the higher-grade BFII ore body, resulting in 9,674 ounces of gold produced in Q3 2017, an increase of 26% quarter over quarter. September gold grade for Pilar was 4.48 g/t Au. The higher average head grade and lower tonnage reduced consolidated “COC” per ounce sold in Q3 2017. Increasing grade at Roça Grande Mine (“Roça Grande” or “RG”) of 2.89 g/t Au contributed to gold production of 1,491 ounces, which was 25% higher compared to Q2 2017. Improved performance and operational efficiencies, including optimization of working shifts from four to two per day, resulted in positive operational cash flows for Roça Grande.
- Total production for YTD 2017 was 643,000 tonnes (average head grade of 3.35 g/t), as compared to 644,000 tonnes processed in the first nine months of 2016 (average head grade of 3.79 g/t).

### *Gold Production, Recovery, and Primary and Secondary Development*

- Consolidated gold production decreased 19% to 20,781 ounces in Q3 2017 compared to 25,782 ounces in Q3 2016. Consolidated gold production for YTD 2017 was 62,842 ounces compared to 71,202 ounces for YTD 2016.
- Gold recovery of 90.5% in Q3 2017 compared to 91.3% in Q3 2016 and 90.7% in Q2 2017.
- Pilar production was 9,674 ounces in Q3 2017 compared to 7,923 ounces produced in Q3 2016; however, production improvements in the later part of the quarter started to reflect the advancing ore development into the higher-grade Orebodies BF and BFII.
- Turmalina produced 9,616 ounces in Q3 2017 compared to 16,304 ounces in Q3 2016; however, with the mining issues encountered at level 9 during Q1 and Q2 2017, the Company is completing the review of the upper levels of the mine in Orebody A to identify areas of high-grade blocks that can be recovered. Several areas have already been identified and two mining blocks within these areas are expected to be recovered by year-end.
- The Company completed 932 metres and 2,666 metres of primary development during the three and nine months ended September 30, 2017, respectively, compared to 1,353 metres and 4,371 metres in the comparative 2016 periods.
- The Company also completed 922 metres and 3,292 metres of secondary development during Q3 2017 and YTD 2017, respectively, compared to 1,182 metres and 3,545 metres in Q3 2016 and YTD 2016.

### *Major Growth Exploration Initiative; Increase in Turmalina Mineral Resources*

- The Company completed 11,592 metres and 34,525 metres of definition, infill, and exploration drilling during the three and nine months ended September 30, 2017, respectively (Q3 2016 and YTD 2016 – 6,749 metres and 28,126 metres, respectively) focused on key targets at Turmalina and Pilar.
- The Company provided an update on its Exploration Growth Program (see news release dated September 20, 2017) and announced the acquisition of a new strategic land position (see news release dated June 21, 2017) located 4.5 kilometres west of the Caeté Mill, increasing the total registered Roca Grande concession by 1,000 hectares.
- Recent results from Pilar included drill results that continued to intersect high-grade visible gold mineralization down-plunge of current resources. Key intercepts included 15.9 g/t Au over 11.8 metres (estimated true width (“ETW”) 9.6 metres), 25.3 g/t Au over 6.0 metres (ETW 5.2 metres) and 5.3 g/t Au over 49.3 metres (ETW 38.7 metres) and confirm the thick, high-grade intercepts from earlier holes, previously reported in August 2017, which included 10.8 g/t Au over 29.3 metres (ETW 22.5 metres). A further 3,200 metres of infill diamond drilling at Pilar aimed at increasing drilling

density in these areas for inclusion in updated Mineral Resource and Ore Reserve estimates for this operation are scheduled for release in early 2018. This drilling commenced with one rig in the last week of September 2017.

- At Turmalina, three diamond drill rigs commenced 11,355 metres of growth exploration drilling in July 2017 which are targeting down-plunge extensions to the high-grade Orebody A at depth, and shallower extensions of Orebody C. Approximately 40% of the planned program has been completed to date including fourteen holes (eleven holes for Orebody A and three holes for Orebody C) with a combined meterage totaling 4,520 metres.

### **Corporate and Strategic Updates**

- The Company continues to advance several initiatives towards executing its growth strategy to become an annual 200,000 ounce gold producer, while also continuing to restore and grow the production profile at Turmalina from its historic levels during 2016.
- Key growth exploration drilling programs completed to date at Pilar and Turmalina have generated excellent results are expected to support the sustainability of the core assets for future production. Pilar's recent strong performance and increased gold production demonstrates that the investments made over the last 12 months, to access the new higher-grade mining fronts from the BF II orebody, were necessary to drive increased production and also a key component of the Company's growth Strategy. The ounce per vertical meter profile at Pilar is very encouraging and has reached over 2,000 ounces per vertical meter.
- The Company is currently exploring options and solutions to an operating agreement as a first step effort to resume operations at the Paciência gold mine. Paciência mine produced 66,671 oz and 59,287 oz in 2009 and 2010 respectively before being placed on care and maintenance in Q3 2012. Once an acceptable solution is found for the operating agreement, the company will begin a growth exploration drilling program to explore the down plunge extension of the main deposits near the mine.
- The Company is also conducting reviews at the Roca Grande Gold Mine in an effort to solve the complex issues due to a perched water table at the RG2 orebody. This orebody has delineated over 500,000 ounces in Mineral Resources but was abandoned in 2010 due to the water issues. The sizable mineral resource was the reason the Caeté Plant was built and expanded in 2010.
- The company continues to advance the two key growth exploration programs at Pilar and Turmalina. Deep drilling at Pilar has successfully confirmed (announced on September 20, 2017) the down plunge extension of the main BFII and BF ore bodies. There are three growth exploration diamond drills working at Turmalina drilling the down plunge extensions to Orebody A and Orebody C and the company anticipates releasing drilling results within the Q4 2017.

### **Appointment of New Board Director**

The Company also announces the appointment of Ben Guenther to its Board of Directors as independent non-executive director. Mr. Guenther is a Mining Engineer with a wide range of management and executive experience and over 40 years in the global mining industry. Mr. Guenther graduated from the Colorado School of Mines. Mr. Guenther's appointment as an independent Board member reflects the Company's commitment to best practices in corporate governance.

## BACKGROUND

Jaguar is a junior gold producer focused on the operation and development of gold assets in Brazil. The Company has two operating units: the Turmalina and Caeté Gold Mine Complexes. The Paciência Gold Mine Complex, comprised of one processing facility and one mine, is on care and maintenance. The Company also owns an early stage development project, Gurupi, in northern Brazil. In 2017, the Company and Avanco Resources Limited (“Avanco”) entered into an Accelerated Earn-In Agreement (“Accelerated Agreement”), pursuant to which Avanco will acquire a 100% ownership in the Gurupi mineral exploration asset to Avanco and holds a first right of refusal to acquire the Paciência Processing Plant.

Management believes there is excellent potential to decrease the operating cost profile of Jaguar in a reasonable timeframe; however, success is dependent on the prudent deployment of capital spending to advance drilling and development ahead of operations. Management’s belief is supported by confidence in the geological endowment of the Company’s existing land positions surrounding its current operating units.

The Company is focused on optimizing existing mining operations through increasing confidence in the geological models to deliver positive and sustainable operational and financial performance. Over time and through exploration and development, the Company will focus on prudently increasing production and taking advantage of the underutilized processing capacity currently installed.

## REVIEW OF OPERATING AND FINANCIAL RESULTS

### Turmalina Gold Mine Complex

#### Turmalina Quarterly Production

(\$ thousands, except where indicated)	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016	Q2 2016	Q1 2016	Q4 2015
Tonnes of ore processed ('000)	<b>107,000</b>	112,000	113,000	122,000	128,000	124,000	128,000	100,000
Average head grade (g/t) <sup>1</sup>	<b>3.10</b>	3.37	3.79	4.39	4.36	4.10	4.29	4.79
Average recovery rate (%)	<b>91%</b>	91%	91%	93%	92%	91%	90%	91%
Gold (ozs)								
Produced	<b>9,616</b>	10,870	12,736	16,101	16,304	15,083	15,772	14,449
Sold	<b>9,082</b>	10,815	13,536	16,024	15,945	15,035	16,635	15,527
Cash operating cost (per oz sold) <sup>2</sup>	<b>\$ 749</b>	\$ 695	\$ 738	\$ 562	\$ 528	\$ 586	\$ 590	\$ 483
Cash operating cost (R\$ per tonne) <sup>2</sup>	<b>\$ 201</b>	\$ 216	\$ 278	\$ 243	\$ 214	\$ 249	\$ 299	\$ 288

<sup>1</sup> The 'average head grade' represents the recalculated head-grade milled.

<sup>2</sup> Cash operating costs is a non-IFRS financial performance measure with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A.

During the third quarter of 2017, Turmalina produced 9,616 ounces of gold compared to 16,304 ounces in the corresponding 2016 period, a decrease of 41% or 6,688 ounces. The decrease in ounces produced was a result of a 16% decrease in the tonnes processed from 128,000 in Q3 2016 to 107,000 in Q3 2017 and an 29% decrease in the average head grade from 4.36 g/t in Q3 2016 to 3.10 g/t in Q3 2017. Mining activities in one section of Orebody A were interrupted during the first half of 2017 to conduct ground control rehabilitation work. During Q3 2017, the Company increased the number of working areas in an effort to stabilize the mining cycles in order to have a consistent gold production. This included increasing gold production from Orebody C while the mining cycle is normalized in Orebody A and until access to lower Orebody C containing higher grades can be established. Production from Orebody C is expected to continue to impact consolidated grade in the short term. The Company is also completing the review of the upper levels of the mine in Orebody A to identify areas of high-grade blocks that can be recovered. Several areas have already been identified and two mining blocks within these areas are expected to be recovered by year-end.



The cash operating cost per ounce sold for the third quarter of 2017 increased by 42%, or \$221 per ounce, as compared to the same period in 2016, mainly due to a 29% decrease in the average head grade, which was marginally offset by certain cost control measures in operations that resulted in a decrease in the cash operating costs per tonne in Brazilian Real from R\$214 in Q3 2016 to R\$201 in Q3 2017.

#### *Operational Excellence Program*

In April 2016, Jaguar Mining and Instituto Aquila (“Aquila”), a Brazilian management consultancy group with a presence in 16 countries and previous experience in mining companies around the world, signed a two year partnership to initiate process improvement work at Turmalina. At the beginning of 2017, Jaguar extended the contract to cover all operations as part of the Company’s Mining for Excellence (M4X) Initiative.

Initially established only for Turmalina, but expanded to the Pilar mine and Caeté plant in Q1 2017, Aquila has been helping to develop and sustain a continuous improvement program focused on results through the Operational Excellence Program, by eliminating waste and rework, lowering cost and increasing productivity. The key to success is to build culture from mine to management where everyone can understand and seek excellence. The ultimate goal is aligning everyone to deliver results and growing in a sustainable and safe way to achieve long-term production.

By evaluating current processes and establishing its value chain, processes and KPIs were mapped, bottlenecks were identified in order to implement the Excellence Teams (multifunctional teams with aligned goals and financial impact defined) guided by a systematic routine follow-up.

Jaguar’s teams have been training, implementing and monitoring the program – through OJT (On the Job Training) and formal trainings that cover the PDCA (Plan, Do, Check, Act) approach, Microsoft Excel, and ICAM (Incident Cause Analysis Methodology) with more than 150 employees at all levels directly, and an additional 250 employees through indirect involvement with the program.

Jaguar Excellence Teams have been covering improvements on primary processes at mine development, such as scaling, blast efficiency, haulage process improvements on equipment efficiency and better loading to maximize the capacity usage. Additionally, we are reducing operational expenditures by managing electricity consumption and ventilation efficiency.

Jaguar has also implemented a program of cost reductions at the mines to improve overall costs. Efficiency initiatives at Pilar and Turmalina are yielding tangible results. Operating improvements include initiatives such as management of ventilation shut offs to reduce electrical consumption, increasing fandrill efficiency by metres drilled per shift, tracking of full load haul trucks and increasing drill and blast efficiency of jumbo drills to achieve more break per metre drilled.

## Turmalina Capital Expenditures

(\$ thousands)	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
Sustaining capital <sup>1</sup>				
Primary development	\$ 1,948	\$ 1,992	\$ 5,321	\$ 7,349
Brownfield exploration	109	114	552	506
Mine-site sustaining	159	1,101	1,400	2,640
<b>Total sustaining capital<sup>1</sup></b>	<b>2,216</b>	<b>3,207</b>	<b>7,273</b>	<b>10,495</b>
<b>Total non-sustaining capital<sup>1</sup></b>	<b>715</b>	<b>763</b>	<b>1,763</b>	<b>1,786</b>
<b>Total capital expenditures</b>	<b>\$ 2,931</b>	<b>\$ 3,970</b>	<b>\$ 9,036</b>	<b>\$ 12,281</b>

<sup>1</sup> Sustaining and non-sustaining capital are non-IFRS financial measures with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A. Capital expenditures are included in our calculation of all-in sustaining costs and all-in costs.

(metres)	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
Primary development	443	605	1,313	2,502
Secondary development	337	623	1,383	2,154
<b>Total development</b>	<b>780</b>	<b>1,228</b>	<b>2,696</b>	<b>4,656</b>
Definition drilling	380	318	1,378	2,418
Infill drilling	2,524	1,225	11,253	8,262
Exploration drilling	5,451	1,250	6,480	2,056
<b>Total definition, infill, and exploration drilling</b>	<b>8,355</b>	<b>2,793</b>	<b>19,111</b>	<b>12,736</b>

Primary development at Turmalina totalled 443 metres and 1,313 metres for the three and nine months ended September 30, 2017, respectively, compared to 605 metres and 2,502 metres in the comparative 2016 periods. In July 2016, the Company demobilized the development contractor at Turmalina, thereby bringing 100% of the development activities in-house. On a per metre basis, the cost of primary development for Q3 2017 increased compared to Q3 2016 mainly due to lower mining activity and therefore higher allocation of fixed overheads to development.

### Mining

The mining method utilized at the Turmalina underground mine is sublevel open stoping with backfill. Our priority is to reduce costs by focusing on ore grade control, minimizing dilution and minimizing the extraction of non-profitable or marginal material. A focus on further improvements to monthly planning, as well as control of drilling and blasting, has commenced along with a number of process initiatives, and are intended to lower cash operating costs per ounce and improve the overall operating performance. Cost reduction initiatives include decreasing the length of development needed from the primary ramp to access ore, postponing the mining of low grade narrow ore bodies that may require additional development, and extraction of high-grade ore by the selective removal of pillars. There is also a push to improve stope blasting techniques to reduce dilution.

The previous mining design of stopes separated by rib pillars (developed prior to 2015) resulted in significant quantities of ore being left behind and not mined. With footwall drifts and primary and secondary stopes being installed in 2015 below Level 8, there is now a need for cemented backfill in the primary stopes. There were some concerns regarding fill rates with cemented rock fill ("CRF") underground, but a trial carried out in Level 9 of the mine showed that rapid fill rates could be achieved and the filling of other primary stopes and mining of secondary stopes with CRF on both sidewalls has confirmed that good quality CRF can be installed quickly and efficiently. During 2015 and 2016, primary and secondary stopes were not

tight filled leaving some areas of large open voids in the stopes, which has resulted in some instability on the footwall drift of Level 9.

In February 2017, Turmalina started having stability issues on one of the sublevels of the Level 9 block in Orebody A. The Level 9 block and the top two sublevels of the Level 10 block were the planned stopes for much of 2017's mining. When the stability issues started, approximately two-thirds of the top two sublevels of Level 9 were mined out (sublevels 4 and 3). Rock stability is normally very good at Turmalina and the problem was interpreted to be caused by developing along a brittle dyke. Mining plans were rearranged to mine from lower blocks in Level 9 and, after an adjustment period in early March, mining tonnage started to return to normal.

Near the middle of March 2017, further rock stability issues on Level 9 led to a more detailed investigation. Dr. Dermot Ross-Brown from Tierra Group International Limited came to the site to review the mine. Dr. Ross-Brown informed Jaguar that the rock mass in the mine was good to very good but that the failures were related to induced stresses in the rock. The mine plans were reviewed in detail in the three-dimensional model and the problem was identified as relaxing ground and collapse adjacent to the Level 9 escapeways which were located between the footwall drifts and the main ramp.

In 2015, Orebody A mining was changed from retreat mining of the sublevels, to mining in a primary and secondary sequence via transverse access to the thick centre portion of Orebody A, requiring additional footwall accesses developed in waste. Each primary or secondary stope is 15 metres along strike, with no pillars. The primary stopes were planned to be filled with CRF or paste-fill prior to mining of the secondary stopes. The design change was planned to increase the number of available workplaces, and to unlink the narrow, lower-productivity ends from the center. Additionally, the ramp was moved closer to the orebody to shorten the lengths of the level access drifts.

The resulting design moved the ramp closer to the orebody and within 25 metres of the stopes on Level 9 sublevel 3, requiring the footwall drift and emergency escapeway to be installed in the 25 metre pillar between the ramp and the stope. The large number of open stopes, drifts, and the escapeway raise resulted in stability issues in the rock between the top of Level 9 sublevel 4 to sublevel 3 as well as between sublevel 2 to the top of Level 10, sublevel 4. During 2016, the design was reviewed and the ramp had been moved away from the orebody for development of Level 10, which allows more room for the infrastructure development.

A system for producing filter cake from detoxified tailings and then re-mixing to paste was installed at startup, but to ensure consistent quality paste, a batching process with a controlled shear mixer is expected to be commissioned in Q4 2017. CRF will be used to fill the bulk of the primary stopes while paste will mainly be used in the upper stope of the sub-levels to allow for the 100% extraction of stopes immediately below the sill pillars.

On February 8, 2017, the Company announced multiple high-grade drill intercepts generated from 36 infill drill holes (5,393 metres) designed to test the current indicated and inferred mineral resource envelope of Orebody A and Orebody C at Turmalina. The drill intercepts completed confirm the continuation of high-grade gold mineralization down-plunge of Orebody A, and confirm the widening of the mineralization below current workings. Drill intercepts at Orebody C confirm a number of high-grade gold mineralized intercepts, which suggests higher mineralization at depth, and could potentially increase mining production at Turmalina. The Turmalina drill program continues to increase the confidence in the geological model of both orebodies through increased drill density.

During July 2017, three drill rigs commenced a program of approximately 11,355 metres of growth exploration drilling. This program is targeting down-plunge extensions to the high grade Orebody A at depth while also targeting extensions of Orebody C at shallower depths. Drilling is being undertaken from a hanging wall development drive specifically prepared and completed for this program on Level 10 sublevel 1. Drilling is intended to reach levels 12 to 16, up to 420 metres vertically below the current development and 300 metres below the current inferred resource. Drilling will also target down-plunge extensions to Orebody C which, once confirmed, will allow access for mining from existing infrastructure between levels 4 and 10. By October 17, 2017, over 40% of the planned program had been completed, including a total of eleven holes in Orebody A and three holes in Orebody C for a total of 4,520 metres.

Emerging from the second quarter, Turmalina successfully transitioned mining activities to Level 10 in Orebody A. This transition follows Management's decision to leave Level 9 as a result of challenging ground conditions previously disclosed. Management is focused on supporting current and future production targets at Turmalina by achieving certain key milestones, including:

- Increasing the number of working areas in an effort to stabilize the mining cycles in order to have consistent gold production. As of October 2017, Turmalina has four active mining stopes in Level 10 and three in Level 11.
- Increasing mine production from Orebody C while the mining cycle is normalized in Orebody A and until access to lower Orebody C containing higher grades can be established. Production from Orebody C is expected to impact consolidated grade in the short term.
- Completing the review of the upper levels of the mine in Orebody A to identify areas of high-grade blocks that can be recovered. Several areas have already been identified and two mining blocks within these areas are expected to be recovered by year-end.
- Completing the newly designed paste-fill plant, currently in the finalization stages. Commissioning is expected to begin at the end of Q4 2017.

The completion and sustaining of the key milestones outlined above is critical to ensuring the flexibility and consistency in the production plan at Turmalina and realizing the full potential of the higher grades in Orebody A. During the second and third quarters of 2017, efforts were made at Turmalina to manage overall cash costs even though the mine continued to struggle short of targets. Plans to manage cash costs have resulted in similar cash costs to those prior to the reduction in production experienced during 2017.

#### *Processing*

Ore produced at the Turmalina mine is transported to the adjacent Carbon-In-Leach ("CIL") processing plant. The Turmalina plant consists of three ball mills, of which two were operating since January 2016 (Mills #1 and #2) at a capacity of 1,500 – 1,600 tonnes per day. During Q3 2017, the plant processed 107,000 tonnes at an average grade of 3.10 g/t compared to 128,000 tonnes at 4.36 g/t in Q3 2016. Overall, the processing plant maintained a recovery rate of 90.5% during Q3 2017, a slight decrease from the 91.8% recovery rate for Q3 2016. On January 5, 2017, the Company announced the successful recommissioning of Mill #3 with an estimated installed capacity of 1,600 tonnes per day. Using only Mill #3, Turmalina will be able to achieve the entire throughput of the plant with a lower operating cost, through electricity consumption savings, compared to using both Mills #1 and #2 in 2016. Mills #1 and #2 have been taken off-line for maintenance and will be kept on standby mode.

## Caeté Gold Mine Complex

### Caeté Quarterly Production

(\$ thousands, except where indicated)	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016	Q2 2016	Q1 2016	Q4 2015
Tonnes of ore processed (t)	<b>106,000</b>	104,000	101,000	115,000	103,000	93,000	68,000	116,000
Average head grade (g/t) <sup>1</sup>	<b>3.62</b>	2.97	3.17	2.79	3.17	3.30	2.83	2.59
Average recovery rate (%)	<b>90%</b>	90%	91%	91%	91%	91%	90%	90%
Gold (ozs)								
Produced	<b>11,164</b>	8,899	9,556	9,307	9,479	9,139	5,425	8,720
Sold	<b>11,339</b>	7,638	10,498	9,085	9,372	8,935	6,246	8,889
Cash operating cost (per oz sold) <sup>2</sup>	<b>\$ 856</b>	\$ 1,087	\$ 1,165	\$ 1,041	\$ 842	\$ 1,049	\$ 1,146	\$ 888
Cash operating cost (R\$ per tonne) <sup>2</sup>	<b>\$ 290</b>	\$ 257	\$ 381	\$ 267	\$ 249	\$ 354	\$ 411	\$ 262

<sup>1</sup> The 'average head grade' represents the recalculated head-grade milled.

<sup>2</sup> Cash operating costs is a non-IFRS financial performance measure with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A.

The Caeté Gold Mine Complex has two underground mines: Pilar and Roça Grande ("RG"). Pilar primarily uses sub-level open stoping with backfill, while Roça Grande exclusively uses the mechanized horizontal cut and fill mining method. The Pilar mine provides 1,000 tonnes per day, or two-thirds of the Caeté complex ore, while the Roça Grande mine provides 500 tonnes per day from the underground RG-1 deposit.

Ore produced from the Pilar mine is transported to the 2,200 tonnes per day gravity, flotation and CIL treatment of flotation concentrate processing plant adjacent to the Roça Grande mine, a total distance of approximately 40 kilometres by road from the Pilar mine. This haulage expense is a significant cost, and Management continues to investigate and complete feasibility work for an XRF Ore Sorting system for waste removal to reduce haulage costs for the Pilar mine. During Q3 2017, the Caeté plant achieved gold recovery of 90.3% utilizing gravity, flotation, and CIL treatment of flotation concentrate. Optimization of the plant offers opportunities for both increased gold extraction and reduced unit processing costs. Various options are being explored and evaluated to better use the currently underutilized processing facility.

### Pilar Quarterly Production

(\$ thousands, except where indicated)	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016	Q2 2016	Q1 2016	Q4 2015
Tonnes of ore processed (t)	<b>88,000</b>	85,000	84,000	84,000	78,000	72,000	56,000	77,000
Average head grade (g/t) <sup>1</sup>	<b>3.77</b>	3.16	3.39	3.11	3.51	3.62	2.89	2.83
Average recovery rate (%)	<b>90%</b>	90%	91%	91%	91%	91%	90%	90%
Gold (ozs)								
Produced	<b>9,674</b>	7,702	8,485	7,569	7,923	7,804	4,552	6,278
Sold	<b>9,820</b>	6,625	9,422	7,326	7,821	7,622	5,369	6,389
Cash operating cost (per oz sold) <sup>2</sup>	<b>\$ 804</b>	\$ 1,033	\$ 1,092	\$ 942	\$ 762	\$ 958	\$ 1,096	\$ 822
Cash operating cost (R\$ per tonne) <sup>2</sup>	<b>\$ 284</b>	\$ 259	\$ 437	\$ 271	\$ 248	\$ 356	\$ 410	\$ 262

<sup>1</sup> The 'average head grade' represents the recalculated head-grade milled.

<sup>2</sup> Cash operating costs is a non-IFRS financial performance measure with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A.

During the third quarter of 2017, Pilar produced 9,674 ounces of gold compared to 7,923 ounces in Q3 2016, an increase of 22% due to the net impact of a 7% increase in average head grade, slight decrease in recovery, and a 13% increase in tonnes processed. Production increased 26% from Q2 2017 to Q3 2017 mainly as a result of a 19% increase in average head grade. Pilar has been using a specialized development contractor to advance primary development. Due to congestion at the bottom of the ramp, the contractor also completes some secondary waste and ore development which, for 2017, is approximately equal to that done by Jaguar. Development ore that is produced by the contractor is more expensive per tonne than when

produced by the Company. As the primary ramp advances ahead, the amount of secondary ore development completed by the contractor is reducing.

The cash operating cost per ounce sold for the third quarter of 2017 increased 6% as compared to Q3 2016 primarily as a result of higher tonnage processed and a stronger Brazilian Real year over year by 3%. Due to the impact of certain cost control measures, as well as stronger grade, cash operating cost decreased by 22% as compared to Q2 2017.

#### Pilar Capital Expenditures

(\$ thousands, except where indicated)	Three months ended		Nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
Sustaining capital <sup>1</sup>				
Primary development	\$ 1,545	\$ 2,720	\$ 4,634	\$ 5,878
Brownfield exploration	124	159	424	565
Mine-site sustaining	669	173	1,839	1,169
<b>Total sustaining capital<sup>1</sup></b>	<b>2,338</b>	<b>3,052</b>	<b>6,897</b>	<b>7,612</b>
<b>Total non-sustaining capital<sup>1</sup></b>	<b>262</b>	<b>92</b>	<b>1,196</b>	<b>156</b>
<b>Total capital expenditures</b>	<b>\$ 2,600</b>	<b>\$ 3,144</b>	<b>\$ 8,093</b>	<b>\$ 7,768</b>

<sup>1</sup> Sustaining and non-sustaining capital are non-IFRS financial performance measures with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A. Capital expenditures are included in our calculation of all-in sustaining costs and all-in costs.

(metres)	Three months ended		Nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
Primary development	471	741	1,159	1,654
Secondary development	518	284	1,709	575
<b>Total development</b>	<b>989</b>	<b>1,025</b>	<b>2,868</b>	<b>2,229</b>
Definition drilling	740	298	2,216	802
Infill drilling	971	2,351	4,432	5,310
Exploration drilling	1,526	162	8,013	2,436
<b>Total definition, infill, and exploration drilling</b>	<b>3,237</b>	<b>2,811</b>	<b>14,661</b>	<b>8,548</b>

Primary development totalled 471 metres and 1,159 metres in the three and nine months ended September 30, 2017, respectively, compared to 741 metres and 1,654 metres in the comparative 2016 periods. Total definition, infill, and exploration drilling increased 15% in Q3 2017 compared to Q3 2016, and 72% in YTD 2017 compared to YTD 2016, as part of the Company's major growth exploration program as announced in Q4 2016.

#### *Mining*

Pilar continued to focus on improvements in minimizing dilution of the grade and profitability, continuing on the initiatives to reduce dilution from overbreak. Pilar is focused predominantly on infill and exploration drilling in 2017, trying to improve the percentage of ore mined from the measured category on a monthly basis. A new wireframe model is being completed to better reflect the geology and lithology at Pilar, which will improve the estimation process.

Based on the strong exploration drilling results and increased reserves and resources, primary and secondary development that had been suspended during Q4 2014 was resumed at Pilar during Q1 2016. A specialized development contractor arrived on site in March 2016 to accelerate the main ramp below Level 10 to open up additional resources. The contractor continued to assist with primary and secondary development at Pilar in the first nine months of 2017. During the second and third quarters of 2017 efforts have been made at Pilar to increase monthly production in a sustainable way and to lower overall cash costs. Production has been increasing at Pilar with 3,881 ounces produced in September, which is the highest production from the mine since March 2013, while a new record grade of 3.77 g/t for the quarter as mining activity increased into the higher grade BFII orebody. September gold grade for Pilar was 4.48 g/t Au. During the third quarter a 33 tonne haul truck was added to the fleet at Pilar, replacing two older trucks, which will improve equipment availability and lower operating costs.

During the third quarter, drilling at Pilar continued to intersect high-grade visible gold mineralization, down-plunge of current resources. Key intercepts include 15.9 g/t Au over 11.8 metres (ETW 9.6 metres), 25.3 g/t Au over 6.0 metres (ETW 5.2 m) and 5.3 g/t Au over 49.3 m (ETW 38.7 m) (see Jaguar press release dated September 20, 2017) and confirm the thick, high-grade intercepts from holes drilled earlier this year, (see Jaguar press release dated August 16, 2017), which included 10.8 g/t Au over 29.3 m (ETW 22.5 m). Drilling results confirm the down-plunge continuity of the principal mineralized Banded Iron Formation Orebodies between levels 11 to 16, up to approximately 350 m vertically below the current development and 250 m below the current Inferred Resources at Pilar.

The presence of visible gold in these thick, higher-grade intercepts confirm drilling is intersecting the major and important controlling fold hinge structures, which define the main Orebodies at Pilar. These down-plunge results show increasing thickness of the high-grade Banded Iron Formation mineralization within the principal Orebodies and have the potential to significantly increase our Mineral Resources and expected mine life at Pilar. The mineralization is open for continued expansion down-plunge. A further 3,200 metres of diamond drilling has been approved at Pilar aimed at increasing drilling density for inclusion in an updated Mineral Resource and Mineral Reserve estimate expected in early 2018.

#### *Ore Transport*

In December 2016, the main public road from Pilar to the Roça Grande mill was shut down due to a safety concern where the road transits Vale's Gongo Soco Pit. From December 2016 through June 2017, the ore from Pilar had been transported through various routes in order to deliver the ore to the mill, including along the highway through the City of Caeté, a 93 kilometre one way trip, and then once some roadwork was completed through the town of Rancho Novo, a one-way trip of 42 kilometres, which used part of the old public road. During this period, negotiations were held with landowners and the City of Caeté to acquire a right of way that would bypass Rancho Novo and become the permanent road for ore transport. The new route would be a 40 kilometre one-way trip. During Q2 2017, negotiations were completed for the right of way, and construction started on the new road.

This new road is completed and has been operating since July 2017. The renegotiated haulage costs for ore from the Pilar mine to the Caeté mill, combined with a new, shorter distance access road is expected to decrease future operating costs of the Pilar mine by approximately \$20-25 per ounce of gold sold.

#### *Processing*

During Q3 2017, the Caeté plant processed 88,000 tonnes from Pilar at an average grade of 3.77 g/t compared to 78,000 tonnes at 3.51 g/t in Q3 2016. Recovery for the quarter was 90.4%, which was marginally lower than the Q3 2016 recovery of 90.6%.

## Roça Grande Quarterly Production

(\$ thousands, except where indicated)	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016	Q2 2016	Q1 2016	Q4 2015
Tonnes of ore processed (t)	18,000	19,000	17,000	31,000	25,000	21,000	12,000	39,000
Average head grade (g/t) <sup>1</sup>	2.89	2.15	2.12	1.93	2.12	2.18	2.53	2.11
Average recovery rate (%)	90%	90%	91%	91%	91%	91%	90%	90%
Gold (ozs)								
Produced	1,491	1,197	1,071	1,738	1,556	1,335	873	2,442
Sold	1,520	1,013	1,076	1,759	1,551	1,313	877	2,500
Cash operating cost (per oz sold) <sup>2</sup>	\$ 1,195	\$ 1,439	\$ 1,787	\$ 1,454	\$ 1,249	\$ 1,578	\$ 1,454	\$ 1,058
Cash operating cost (R\$ per tonne) <sup>2</sup>	\$ 319	\$ 247	\$ 224	\$ 272	\$ 252	\$ 346	\$ 415	\$ 261

<sup>1</sup> The 'average head grade' represents the recalculated head-grade milled.

<sup>2</sup> Cash operating costs is a non-IFRS financial performance measure with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A.

During the third quarter of 2017, Roça Grande produced 1,491 ounces of gold compared to 1,556 ounces in the corresponding 2016 period, a decrease of 4% or 65 ounces. Operational delays have occurred due to the shortage of developed stopes as the primary focus has been on infill drilling and development in an effort to extend mine life.

The cash operating cost per ounce sold for Q3 2017 decreased 4% compared to Q3 2016 due to the net impact of a decrease in secondary development, improvement in average head grade and cost control measures.

## Roça Grande Capital Expenditures

(\$ thousands, except where indicated)	Three months ended		Nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
Sustaining capital <sup>1</sup>				
Primary development	\$ 52	\$ 33	\$ 784	\$ 717
Brownfield exploration	18	78	161	318
Mine-site sustaining	-	-	118	104
<b>Total sustaining capital<sup>1</sup></b>	<b>70</b>	<b>111</b>	<b>1,063</b>	<b>1,139</b>
<b>Total non-sustaining capital<sup>1</sup></b>	<b>1</b>	<b>17</b>	<b>165</b>	<b>47</b>
<b>Total capital expenditures</b>	<b>\$ 71</b>	<b>\$ 128</b>	<b>\$ 1,228</b>	<b>\$ 1,186</b>

<sup>1</sup> Sustaining and non-sustaining capital are non-IFRS financial performance measures with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A. Capital expenditures are included in our calculation of all-in sustaining costs and all-in costs.

(metres)	Three months ended		Nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
Primary development	18	7	194	215
Secondary development	67	275	201	816
<b>Total development</b>	<b>85</b>	<b>282</b>	<b>395</b>	<b>1,031</b>
Definition drilling	-	-	-	-
Infill drilling	-	894	557	5,390
Exploration drilling	-	251	196	1,452
<b>Total definition, infill, and exploration drilling</b>	<b>-</b>	<b>1,145</b>	<b>753</b>	<b>6,842</b>



Primary development restarted in Q1 2016 in order to provide access to the orebody, with a focus on proving up the higher grade/thickness targets. Primary development for Q3 2017 and YTD 2017 was 18 metres and 194 metres, respectively, compared to 7 metres and 215 metres in the comparative 2016 periods.

### *Mining*

The Roça Grande mining activity has historically focused on surface exposures of gold deposits, where the orebody outcropped. The outcrops were mined using open-pit mining techniques, with exploration focused solely on the immediate down-dip projection of gold mineralization, and minimal exploration along strike between the outcrops.

Underground, the Roça Grande operations team continues to evaluate more effective methods to mine the 1-2 metre wide veins without excessive dilution, using a frontal-attack mechanized cut-and-fill mining method. A targeted exploration program has helped identify sufficient resources to continue mining to the end of 2017. Ore in Q1 2016 was generated primarily from ore development but, for the rest of 2016 and for the first half of 2017, stoping returns were the dominant ore source.

At the start of June 2017, underground staff was reduced from four crews working three shifts per day on seven days per week basis to two crews working two shifts Monday through Friday. Mining tonnage rates have reduced by 9% comparing January through May to June through September but, with 6,473 tonnes mined in September, it was the third best tonnage month for the year. Grades at RG have gone up 18% comparing January through May to June through September, and the average grade of 2.89 g/t is the best since Q1 2013. Overall cost cutting measures have been effective in bringing cash costs down at the mine.

The exceptional exploration potential along strike and in the down-dip extension of related multiple orebodies, which have thus far only been mined by open pits, justifies treating the Roça Grande operation as an 'incremental ore' producer until the other orebodies can be brought into production.

In Q3 2017, mine production was 18,000 tonnes at an average grade of 2.89 g/t compared to 25,000 tonnes at 2.12 g/t in Q3 2016. Definition, infill, and exploration drilling totalled 753 metres for the nine months ended September 30, 2017, compared to 6,842 metres during the same period in 2016 and 1,145 metres in Q3 2016.

### *Processing*

During Q3 2017, the Caeté plant processed 18,000 tonnes from Roça Grande compared to 25,000 tonnes in Q3 2016. Recovery for the quarter was 90.4%, which was marginally lower than the Q3 2016 recovery of 90.7%.

## CONSOLIDATED FINANCIAL RESULTS

### Quarterly Financial Review<sup>1</sup>

(\$ thousands, except where indicated)	Q3 2017	Q2 2017	Q1 2017	Q4 2016	Q3 2016	Q2 2016	Q1 2016	Q4 2015
Revenue	\$ 26,062	\$ 23,352	\$ 29,192	\$ 30,261	\$ 33,618	\$ 29,996	\$ 26,664	\$ 26,820
Cost of sales (excluding depreciation) <sup>2</sup>	(16,116)	(15,990)	(21,508)	(19,355)	(16,191)	(17,887)	(17,579)	(15,397)
Gross profit (excluding depreciation) <sup>2</sup>	9,946	7,362	7,684	10,906	17,427	12,109	9,085	11,423
Net (loss) income	(7,664)	(3,323)	(7,877)	(9,280)	(31,648)	(26,866)	(15,001)	1,670
Cash flows from operating activities	7,509	216	1,855	8,467	9,353	10,435	9,526	6,786
Total assets	177,806	182,399	181,242	192,788	189,779	189,554	184,996	183,409
Total liabilities	75,591	72,671	74,330	78,454	131,618	139,665	108,349	90,624
Working Capital	23,171	9,561	3,052	8,912	2,650	892	(1,044)	1,979
Total Debt	19,997	24,299	21,340	22,590	77,786	61,343	22,881	41,156
Average realized gold price (per ounce) <sup>2</sup>	\$ 1,276	\$ 1,266	\$ 1,215	\$ 1,205	\$ 1,328	\$ 1,251	\$ 1,165	\$ 1,098
Cash operating cost (per oz sold) <sup>2</sup>	\$ 809	\$ 857	\$ 924	\$ 735	\$ 645	\$ 758	\$ 742	\$ 631

<sup>1</sup> Sum of all the quarters may not add up to the annual total due to rounding.

<sup>2</sup> Average realized gold price, cost of sales (excluding depreciation), gross profit (excluding depreciation) and cash operating costs are all non-IFRS financial performance measures with no standard definition under IFRS. For further information, refer to the Non-IFRS Financial Performance Measures section of the MD&A.

The relative strength in the global gold market positively impacted the Company's revenue in Q3 2017. However, the impact was partially offset by the 3% strengthening of the Brazilian Real as compared to the US Dollar in Q3 2017 compared to Q3 2016. The net loss throughout 2016 primarily reflects the impact of the revaluation of the convertible debentures at period-ends and at each conversion date, as well as an increase in the depreciation expense due to the impairment reversal recorded as at December 31, 2015.

Current assets, excluding assets held for sale, decreased \$6.5 million as at September 30, 2017 compared to December 31, 2016, primarily as a result of the decrease in cash. Current liabilities, excluding the advance on disposition of mineral assets, decreased \$3.1 million as at September 30, 2017 compared to December 31, 2016, due to a decrease in notes payable, accounts payable and accrued liabilities. Non-current liabilities decreased \$2.0 million as at September 30, 2017 compared to December 31, 2016, resulting from decreases in reclamation provisions and other taxes payable.

### Revenue

(\$ thousands, except where indicated)	Three months ended			Nine months ended		
	September 30,			September 30,		
	2017	2016	Change	2017	2016	Change
Revenue	\$ 26,062	\$ 33,618	(22%)	\$ 78,606	\$ 90,278	(13%)
Ounces sold	20,422	25,317	(19%)	62,909	72,167	(13%)
Average realized gold price <sup>1</sup>	\$ 1,276	\$ 1,328	(4%)	\$ 1,250	\$ 1,251	(0%)

<sup>1</sup> Average realized gold price is a non-IFRS financial performance measure with no standard definition under IFRS. For further information, refer to the Non-IFRS Financial Performance Measures section of the MD&A.

Revenue for the third quarter of 2017 decreased 22%, compared to the same period in 2016, primarily as a result of a 19% decrease in ounces sold. The market price of gold is a primary driver of our profitability and our ability to generate free cash flow. During the three months ended September 30, 2017, the market price of gold (London PM Fix) traded in a range of \$1,211-\$1,346, averaged \$1,278 per ounce, and closed at \$1,283 per ounce on September 30, 2017. The average market price during the third quarter of 2017 was lower compared to the average market price of \$1,328 per ounce for the third quarter of 2016.

## Production

A total of 213,000 tonnes were processed in Q3 2017 (Q3 2016 – 231,000 tonnes) at an average head grade of 3.36 g/t (Q3 2016 – 3.83 g/t), a 12% decrease in average head grade compared to the same period in 2016.

### Consolidated Production Costs

(\$ thousands, except where indicated)	Three months ended September 30,			Nine months ended September 30,		
	2017	2016	Change	2017	2016	Change
Direct mining and processing cost	\$ 15,457	\$ 15,062	3%	\$ 50,456	\$ 47,643	6%
Mining	10,369	9,362	11%	35,601	29,385	21%
Processing	5,088	5,700	(11%)	14,855	18,258	(19%)
Royalties, production taxes and others	659	1,129	(42%)	3,158	4,014	(21%)
Royalty expense and CFEM taxes	688	967	(29%)	2,275	2,965	(23%)
NRV adjustment and others	(29)	162	(118%)	883	1,049	(16%)
<b>Total operating expenses</b>	<b>\$ 16,116</b>	<b>\$ 16,191</b>	<b>(0%)</b>	<b>\$ 53,614</b>	<b>\$ 51,657</b>	<b>4%</b>
Depreciation	5,898	9,509	(38%)	17,271	25,599	(33%)
<b>Total cost of sales</b>	<b>\$ 22,014</b>	<b>\$ 25,700</b>	<b>(14%)</b>	<b>\$ 70,885</b>	<b>\$ 77,256</b>	<b>(8%)</b>

<sup>1</sup> Cash operating costs is a non-IFRS financial performance measure with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A.

Total operating expenses remained marginally the same at \$16.2 million in the three months ended September 30, 2016, compared to \$16.1 million in 2017, primarily as a result of cost-cutting measures and the lower tonnage. The decrease in the depreciation expense is a result of a change in the basis for the calculation of depreciation for the Turmalina mine by utilizing Measured and Indicated Mineral Resources compared to the prior period for which the basis was Proven and Probable Mineral Reserves. This change in accounting estimate was made in Q1 2017 to ensure depreciation reflects Management's best estimate of the useful life of the Turmalina mine.

## Operating Expenses

(\$ thousands)	Three months ended September 30,			Nine months ended September 30,		
	2017	2016	Change	2017	2016	Change
Changes to legal and recoverable tax provisions	\$ 617	\$ 321	92%	\$ 2,813	\$ (8,223)	(134%)
General and administration expenses	2,522	2,541	(1%)	7,736	6,966	11%
Exploration and evaluation costs	107	33	224%	686	50	1272%
Care & maintenance costs (Paciência mine)	310	298	4%	995	763	30%
Stock-based compensation	148	124	19%	850	349	144%
Amortization	51	-	100%	197	42	369%
Impairment reversal	5,178	-	0%	5,178	-	0%
Other operating expenses	1,165	462	152%	2,412	1,549	56%
<b>Total operating expenses</b>	<b>\$ 10,098</b>	<b>\$ 3,779</b>	<b>167%</b>	<b>\$ 20,867</b>	<b>\$ 1,496</b>	<b>1295%</b>

Other operating expenses were \$6.3 million in Q3 2017 as compared to \$0.5 million in Q3 2016, including \$5.2 million in impairment charges to Gurupi and \$0.9 million in discounts on ICMS tax credits sold in the quarter.

## Care & Maintenance Costs – Paciência Gold Complex

The Paciência Gold Complex remained on care and maintenance during the third quarter of 2017. No gold has been produced since the third quarter of 2012 when the mine was put on care and maintenance. No underground development or drilling work was carried out by the Company at Paciência during the first nine months of 2017. The complex has been secured and the facilities are preserved and patrolled. A limited maintenance staff turns the mills and equipment on a monthly basis to maintain the plant in working order.

## General and Administration Expenses

The general and administration (“G&A”) expenses exclude mine-site administrative costs which are charged directly to operations and include legal, accounting, costs to maintain offices and personnel in Belo Horizonte, Brazil and Toronto, Canada, and other corporate costs associated with being a publicly-traded company.

(\$ thousands)	Three months ended September 30,			Nine months ended September 30,		
	2017	2016	Change	2017	2016	Change
Directors' fees	\$ 129	\$ 86	50%	\$ 393	\$ 334	18%
Audit related and insurance	101	91	11%	307	415	(26%)
Corporate office (Toronto)	771	887	(13%)	2,273	2,198	3%
Belo Horizonte office	1,520	1,477	3%	4,763	4,019	19%
<b>Total G&amp;A expenses</b>	<b>\$ 2,522</b>	<b>\$ 2,541</b>	<b>(1%)</b>	<b>\$ 7,736</b>	<b>\$ 6,966</b>	<b>11%</b>

For the three months ended September 30, 2017, the total G&A expenses were 1% lower as compared to the same period in 2016. Costs associated with the Belo Horizonte office were 19% higher in the nine months ended in September 30, 2017, partially due to the strengthening of the Brazilian Real and the reallocation of G&A costs at sites to the Belo Horizonte office. Costs for the corporate office in Toronto were 13% lower in Q3 2017 compared to Q3 2016 due to cost cutting measures. Management will continue its cost reduction focus for both Toronto and Belo Horizonte corporate office expenses.

## Changes to Legal and Recoverable Taxes Provisions

(\$ thousands)	Three months ended September 30,			Nine months ended September 30,		
	2017	2016	Change	2017	2016	Change
Changes to legal provisions	\$ 759	\$ 737	3%	\$ 1,820	\$ (7,140)	(125%)
Changes to recoverable taxes provision	(142)	(416)	(66%)	993	(1,083)	(192%)
<b>Changes to legal and recoverable taxes provisions</b>	<b>\$ 617</b>	<b>\$ 321</b>	<b>92%</b>	<b>\$ 2,813</b>	<b>\$ (8,223)</b>	<b>(134%)</b>

## Legal Provisions

As at September 30, 2017, there were 436 employee-initiated active lawsuits (December 31, 2016 – 472) against the Company, largely related to disputed wages. Based on Management's assessment of the likelihood of loss related to 328 lawsuits (December 31, 2016 – 385), the Company has recorded approximately \$10.8 million as labour legal provisions, with \$4.8 million classified as a current liability as at September 30, 2017 (December 31, 2016 – \$13.2 million and \$4.9 million, respectively).

During Q1 2016, Management in conjunction with external counsel, revised its estimate in regards to the labour litigation provisions in order for the provision to be more representative of the likelihood of loss. The change in estimates was derived from applying certain probability factors to the potential loss claim amounts based on the stage of each lawsuit.

During Q3 2017, 22 new lawsuits were initiated. The Company paid approximately \$892,000 in appeal deposits and escrow payments, \$235,000 in settlements installment, and \$15,000 for other costs such as social security, income tax, legal fees, and expert fees. The total amount spent in Q3 2017 was \$1.1 million in comparison to \$1.2 million in Q3 2016.

### **Recoverable Taxes Provision**

As at September 30, 2017, gross recoverable taxes (which are primarily denominated in Brazilian Reais) and also include Canadian HST recoverable of \$1.7 million, amounted to \$23.6 million (December 31, 2016 – \$27.3 million). As at September 30, 2017, the provision for recoverable taxes was approximately \$6.4 million (December 31, 2016 – \$5.2 million). Consequently, the net book value of recoverable taxes as at September 30, 2017 was \$17.2 million (December 31, 2016 – \$22.1 million).

Certain taxes paid in Brazil on consumables and property, plant, and equipment generate tax credits through various mechanisms. The Company is currently working on several initiatives to ensure optimum utilization of those tax credits, which include assessment of the tax credits for offset against taxes otherwise payable and restitution in cash.

The Company recorded a provision against its recoverable taxes to reduce the net carrying amount of value added taxes and other taxes to their estimated recoverable value. As at December 31, 2016, the provision was recorded based on historical losses on tax credits and their estimated present value based on the timing of expected recovery, discounted at a rate of 9.38% (Brazilian Central Bank's estimated Selic rate). In February 2017, the Company completed a merger between two of its subsidiaries: Mineração Serras do Oeste Ltda. ("MSOL") and Mineração Turmalina Ltda. ("MTL"). As a result, the provision was recorded only based on historical losses on tax credits.

The Company continues to pursue approval of Federal Value Added Tax ("VAT") input tax credits with respect to the years 2008 to 2011. As a result of these ongoing efforts, during Q1 2016, the Company obtained a VAT cash refund of approximately \$1.0 million (R\$3.5 million) relating to the MSOL legal entity. In July 2016, the Company initiated a lawsuit to obtain a court order to force the tax authority to review the Company's remaining tax credits for MSOL with respect to the years 2008 to 2011. By the end of November 2016, the tax authority reviewed the Company's claim, partially recognizing its tax credits. Although the tax credits were partially recognized, the Company will continue to challenge the tax authority's review by appealing its results.

ICMS is a type of value added tax which can either be sold to other companies (usually at a discount rate of 15-35%) or be used to purchase specified machinery and equipment, as subject to approval by government authority. The ICMS credits can only be realized in the state where they were generated; in the case of Jaguar, this is in the state of Minas Gerais, Brazil. In April 2017, the Company received approval from the state to be able to sell R\$14.6 million (approximately \$4.6 million) of its gross ICMS deferred tax credits related to MTL to third parties, of which the Company sold a total of R\$9.2 million gross ICMS deferred tax credits during the nine months ended September 30, 2017.

### **Impairment**

The Turmalina, Paciência, and Caeté complexes are each cash-generating units ("CGUs") which include property, plant and equipment, mineral rights, deferred exploration costs, and asset retirement obligations net of amortization. The CGUs also include mineral exploration project assets relating to properties not in production such as mineral rights and deferred exploration costs. A CGU is generally an individual operating mine or development project, such as the Gurupi Project.

At September 30, 2017, the Gurupi mineral exploration asset and its associated liabilities were classified as held for sale as it was highly probable that the carrying value would be received through a sales transaction rather than through continued use. Immediately upon reclassification from mineral exploration projects to assets held for sale, the assets were evaluated for impairment.

The impairment test was carried out comparing the fair value (net present value of future cash flows) to the book value. In determining net present value, the Company estimated value and timing of future cash flows from the Gurupi operation for both the \$9 million initial payments receivable from Avanco, and the net smelter royalty receivable over the life of mine.

As a result of the assessment the Company recorded an impairment provision of \$5.2 million representing its fair value less cost of disposal, which was determined to be lower than its carrying amount and was recognized in Other income (expense) for the three and nine months period ended September 30, 2017.

## Non-Operating Expenses (Recoveries)

(\$ thousands)	Three months ended September 30,			Nine months ended September 30,		
	2017	2016	Change	2017	2016	Change
Foreign exchange (gain) loss	\$ 638	\$ 161	296%	\$ 628	\$ 2,750	(77%)
Financial instruments (gain) loss	20	31,405	(100%)	(327)	76,029	(100%)
Finance costs	1,034	2,138	(52%)	4,053	4,469	(9%)
Other non-operating expenses	(252)	(116)	117%	72	98	(27%)
<b>Non-operating expenses</b>	<b>\$ 1,440</b>	<b>\$ 33,588</b>	<b>(96%)</b>	<b>\$ 4,426</b>	<b>\$ 83,346</b>	<b>(95%)</b>

During the three and nine months ended September 30, 2017, finance costs mainly represent interest on debt and accretion expense.

## Convertible Senior Secured Debentures

On October 27, 2015, the Company closed financing of the Convertible Senior Secured Debentures ("Debentures") at a price of \$1,000 per Debenture, for aggregate proceeds of \$21.5 million. The Debentures bore interest at a rate of 12% per annum and were convertible at the holder's option into common shares of the Company, at a ratio of approximately 8,781 common shares per \$1,000 of the principal amount. During the three and nine months ended September 30, 2016, the Company recorded an increase in the fair value of the financial liability, in the amount of \$25.2 million and \$45.9 million, respectively, as an expense through profit or loss.

On October 5, 2016, the Company issued a notice of redemption to holders of the outstanding Debentures. As set out in the notice of redemption, the outstanding Debentures would be redeemed as of November 8, 2016 ("Redemption Date") upon payment of 120% of the principal amount and all accrued and unpaid interest to but excluding the Redemption Date. During the year ended December 31, 2016, and before the Redemption Date, the Debentures were converted. Upon conversion, 188,795,215 common shares were issued and \$104.3 million, representing the fair value of the financial liability associated with the converted Debentures at the conversion dates, was transferred to common shares.

## Sprott Facility

On November 7, 2016, the Company entered into an agreement with Sprott Private Resource Lending (Collector) LP ("Sprott Lending") for a secured loan facility ("Sprott Facility") totalling \$10.0 million ("Tranche 1") to fund accelerated growth exploration initiatives. Tranche 1 of the Sprott Facility is payable over a term of 30 months, in equal monthly repayments of principal, plus interest, with an interest rate of 6.5% per annum, plus the greater of US dollar LIBOR or 1.25% per annum. In consideration for the structuring and syndication of Tranche 1, the Company has made a cash payment to Sprott Lending for structuring and legal fees. In consideration for and providing the financing commitment, the Company has issued an aggregate of 650,000 common shares of Jaguar to Sprott Lending and to Natural Resource Income Investing Limited Partnership.

On June 9, 2017, the Company entered into an agreement with Sprott Lending for an additional tranche of the Sprott Facility totalling \$5.0 million ("Tranche 2"). Tranche 2 of the Sprott Facility is payable over a term of 36 months, in equal monthly repayments of principal, plus interest, with an interest rate of 6.5% per annum, plus the greater of US dollar LIBOR or 1.25%

per annum. In consideration for the structuring and syndication of Tranche 2, the Company has made a cash payment to Sprott Lending for legal fees. In consideration for providing the financing commitment, the Company has issued an aggregate of 375,000 common shares of Jaguar to Sprott Lending and to Natural Resource Income Investing Limited Partnership.

The Company incurred transaction costs, totalling \$246,000, to obtain Tranche 2 of the Sprott Facility, which includes legal fees, transaction fees, listing fees, and common share issuance (valued at \$116,000). All transaction costs, other than the common shares, were measured and recorded at the amount paid as it represents fair value.

The Sprott Facility is a financial liability, under IAS 32, and was initially measured at fair value and subsequently measured at amortized cost using the effective interest method. During the three and nine months ended September 30, 2017, \$120,000 and \$323,000, respectively, was recorded as finance costs in the condensed interim consolidated statements of operations and comprehensive loss related to the accretion of the transaction costs (three and nine months ended September 30, 2016 - \$nil). During the three and nine months ended September 30, 2017 and in accordance with the terms of the Sprott Facility, the Company made principal repayments of \$1.4 million and \$3.6 million, respectively (\$nil and \$nil respectively during the three and nine months ended September 30, 2016), and interest payments of \$244,000 and \$614,000, respectively (\$nil and \$nil, respectively during the three and nine months ended September 30, 2016).

The Sprott Facility is provided by security agreements comprising the Company's and MSOL's, present and future assets, the shares of MSOL, and a loan guarantee by MSOL. The Sprott Facility requires among other things that the Company adhere to specific financial covenants, such as maintaining a minimum of \$5.0 million unrestricted cash and cash equivalents and positive working capital computed monthly. Sprott Lending waived the Company's obligation to comply with the positive working capital covenant from the period of April 1, 2017 through June 29, 2017, and the Company was in compliance with the Sprott Facility covenants as at period end. To the date of this MD&A, Jaguar has repaid \$4.2 million of principal from the Sprott Facility and \$10.8 million remains outstanding.

## Taxes

### Brazilian Taxes

Brazilian tax regulation involves three jurisdictions and tax collection levels: Federal, State, and Municipal. The main taxes levied are: corporate income tax with companies generally subject to income tax at a rate of 25%, social contribution tax on the net profit at a current rate of 9%, and VAT taxes at a rate of 9.25% for PIS/CONFINS and 12-18% for ICMS.

### Government Royalty

In July 2017, an executive decree was published increasing the Brazilian royalty that is levied on gold sales, *Compensação Financeira pela Exploração de Recursos Minerais ("CFEM")*, from 1% to 2% effective November 1, 2017. The decree also outlines a change in the methodology for calculating the royalty from being calculated on gross revenue less refining charges and insurance, as well as any applicable sales taxes, to being calculated on gross revenue only.

## Income and Deferred Taxes Expenses

(\$ thousands)	Three months ended September 30,			Nine months ended September 30,		
	2017	2016	Change	2017	2016	Change
Current income tax expense	\$ 174	\$ 2,165	(92%)	\$ 1,289	\$ 4,235	(70%)
Deferred income tax recovery	-	34	(100%)	-	(2,540)	(100%)
<b>Income tax expense</b>	<b>\$ 174</b>	<b>\$ 2,199</b>	<b>(92%)</b>	<b>\$ 1,289</b>	<b>\$ 1,695</b>	<b>(24%)</b>

The income tax provision is subject to a number of factors, including the allocation of income between different countries, different tax rates in various jurisdictions, the non-recognition of tax assets, foreign currency exchange rate movements,

changes in tax laws, and the impact of specific transactions and assessments. Due to the number of factors that can potentially impact the effective tax rate and the sensitivity of the tax provision to these factors as discussed above, it is expected that the Company's effective tax rate will fluctuate in future periods. In Q3 2017, the current income tax expense primarily consisted of Social Contribution on Net Income (CSLL) tax expense.

## REVIEW OF FINANCIAL CONDITION

### Outstanding Debt

Total debt outstanding as at September 30, 2017, was \$20.0 million (of which \$10.3 million was the amortized cost of the Sprott Facility), compared to \$22.6 million as at December 31, 2016 (of which \$8.8 million was the amortized cost of the Sprott Facility). All of the Debentures were converted into common shares of the Company during the second half of 2016.

### Liquidity and Cash Flow

The Company had a working capital adjusted of \$5.9 million as at September 30, 2017 (\$11.3 million as at December 31, 2016). Working capital as at September 30, 2017 is net of \$6.0 million in loans from Brazilian banks (\$10.3 million as at December 31, 2016), which are mature every six months, and are expected to continue to be rolled forward. Working capital excluding the Brazilian bank loans was \$11.9 million as at September 30, 2017 (\$21.6 million as at December 31, 2016). As at September 30, 2017, the Company had cash balance of \$19.2 million compared to \$26.3 million as at December 31, 2016. The Company is in compliance with the financial covenants related to the Sprott Facility that require the Company to maintain a minimum of \$5.0 million unrestricted cash and cash equivalents and positive working capital computed monthly.

	September 30, 2017	December 31, 2016
Cash and cash equivalents	\$ 19,243	\$ 26,304
Non-cash working capital		
Other current assets:		
Inventory	11,623	12,615
Recoverable taxes	9,945	9,509
Others	5,285	4,127
Current liabilities:		
Accounts payable and accrued liabilities	(19,242)	(19,879)
Notes payable	(13,033)	(15,173)
Other provisions and liabilities	(4,812)	(4,869)
Other current liabilities	(3,034)	(1,302)
Adjusted working capital <sup>1</sup>	\$ 5,975	\$ 11,332
Assets held for sale	17,476	-
Liabilities held for sale	(280)	-
Working capital <sup>1</sup>	\$ 23,171	\$ 11,332

<sup>1</sup> This is a non-gaap financial performance measures with no standard definition under IFRS.

The Company will continue to review and implement cost control measures across the operations and corporate offices to improve operating cash flow and enhance the Company's working capital position.



The use of funds during the three and nine months ended September 30, 2017 is outlined below:

(\$ thousands)	Three months ended		Nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
<b>Cash generated from operating activities</b>	\$ 7,509	\$ 9,353	\$ 9,583	\$ 29,314
<b>Investing activities</b>				
Capital expenditures on equipment and brownfield exploration				
Mineral exploration projects	\$ (175)	\$ (731)	\$ (193)	\$ (1,333)
Purchase of property, plant and equipment	(5,185)	(6,791)	(18,681)	(20,694)
Proceeds from disposition of property, plant and equipment	-	2	306	23
Proceeds from disposition of Mineral exploration projects	2,000	-	2,200	-
<b>Cash used in investing activities</b>	\$ (3,360)	\$ (7,520)	\$ (16,368)	\$ (22,004)
<b>Financing activities</b>				
Net change in debt	\$ (5,006)	\$ (950)	\$ (4,090)	\$ (2,300)
Shares issued upon private placement, net of transaction costs	-	-	5,775	-
Interest paid	(378)	(946)	(1,481)	(2,738)
Deferred share units redeemed	-	-	(0)	(41)
<b>Cash provided by (used in) financing activities</b>	\$ (5,384)	\$ (1,896)	\$ 204	\$ (5,079)
Effect of exchange rate	(228)	(192)	(480)	(270)
<b>Net increase (decrease) in cash and equivalents</b>	\$ (1,463)	\$ (255)	\$ (7,061)	\$ 1,961

The \$1.8 million decrease in operating cash flows for Q3 2017 compared to Q3 2016 is primarily due to increase in cash operating costs from \$645 per ounce sold in Q3 2016 to \$809 in Q3 2017 and the 19% decrease in ounces sold. The \$2.0 million in cash provided by investing activities in Q3 2017 relates to the Accelerated Earn-In Agreement between the Company and Avanco. A summary of capital spending is outlined below:

(\$ thousands)	Three months ended		Nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
<b>Sustaining capital<sup>1</sup></b>				
Primary development	\$ 3,545	\$ 4,745	\$ 10,738	\$ 13,944
Brownfield exploration	251	351	1,137	1,389
Mine-site sustaining				
Engineering	-	551	1	1,685
Equipment	828	723	3,357	2,228
<b>Total sustaining capital<sup>1</sup></b>	<b>4,624</b>	<b>6,370</b>	<b>15,233</b>	<b>19,246</b>
<b>Non-sustaining capital (including capital projects)<sup>1</sup></b>				
Gurupi	160	280	278	649
Turmalina	715	763	1,763	1,786
Caete	263	109	1,360	203
Others	-	-	-	143
<b>Total non-sustaining capital<sup>1</sup></b>	<b>1,138</b>	<b>1,152</b>	<b>3,401</b>	<b>2,781</b>
<b>Total capital expenditures</b>	<b>\$ 5,762</b>	<b>\$ 7,522</b>	<b>\$ 18,634</b>	<b>\$ 22,027</b>

<sup>1</sup> Sustaining and non-sustaining capital are non-IFRS financial measures with no standard definition under IFRS. Refer to the Non-IFRS Financial Performance Measures section of the MD&A. Capital expenditures are included in our calculation of all-in sustaining costs and all-in costs.

## Contractual Obligations and Commitments

The Company's contractual obligations as at September 30, 2017 are summarized as follows:

(\$ thousands, except where indicated)	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years	Total
<b>Financial Liabilities</b>					
Accounts payable and accrued liabilities <sup>1</sup>	\$ 19,242	\$ -	\$ -	\$ -	\$ 19,242
Notes payable					
Principal					
Bank indebtedness <sup>2</sup>	6,001	-	-	-	6,001
Capital leasing obligations	1,221	1,470	-	-	2,691
Vale note	500	1,000	-	-	1,500
Sprott Facility	5,667	5,111	-	-	10,778
Interest	911	368	-	-	1,279
Total financial liabilities	\$ 33,542	\$ 7,949	\$ -	\$ -	\$ 41,490
<b>Other Commitments</b>					
Operating lease agreements	\$ 56	\$ -	\$ -	\$ -	\$ 56
Suppliers' agreements <sup>3,4</sup>	863	-	-	-	863
Other provisions and liabilities	4,812	7,974	-	-	12,786
Reclamation provisions <sup>5</sup>	993	7,090	5,866	10,056	24,005
Total other commitments	\$ 6,724	\$ 15,064	\$ 5,866	\$ 10,056	\$ 37,709
<b>Total</b>	<b>\$ 40,266</b>	<b>\$ 23,013</b>	<b>\$ 5,866</b>	<b>\$ 10,056</b>	<b>\$ 79,199</b>

<sup>1</sup> Amounts payable as at September 30, 2017.

<sup>2</sup> Bank indebtedness represents the principal on Brazilian bank loans that are renewed every six months.

<sup>3</sup> Purchase obligations for supplies and consumables - includes commitments related to new purchase obligations to secure a supply of cyanide, reagents, mill balls and other spares. The Company has the contractual right to cancel the mine operation contracts with 30 days advance notice. The amount included in the commitments table represents the contractual amount due within 30 days.

<sup>4</sup> Purchase obligations for supplies and consumables - includes commitments related to new purchase obligations to secure a supply of cyanide, reagents, mill balls and other spares.

<sup>5</sup> Reclamation provisions - amounts presented in the table represent the undiscounted uninflated future payments for the expected cost of

## CAPITAL STRUCTURE

The capital structure of the Company as at September 30, 2017 is outlined below:

All amounts in \$ thousands, except number of common shares	As at September 30, 2017
Bank indebtedness	\$ 6,001
Capital leasing obligations	2,390
Vale note	1,269
Sprott Facility	10,337
<b>Total debt</b>	<b>\$ 19,997</b>
Less: cash and cash equivalents	(19,243)
<b>Total net debt<sup>1</sup></b>	<b>\$ 754</b>
Number of common shares outstanding	325.1 million

<sup>1</sup> Net debt is a Non-IFRS Performance Measure and is defined as total indebtedness excluding unamortized transaction costs and premiums or discounts associated with debt, less cash and cash equivalents. Net debt provides a measure of indebtedness in excess of the current cash available. The Company reduces gross indebtedness by cash and cash equivalents on the basis that they could be used to pay down debt.

## OFF-BALANCE SHEET ITEMS

The Company does not have any off-balance sheet investment or debt arrangements.

## RELATED PARTY TRANSACTIONS

The Company incurred legal fees from Azevedo Sette Advogados (“ASA”), a law firm where Luis Miraglia, a director of Jaguar, is a partner. Fees paid to ASA are recorded at the exchange amount – being the amount agreed to by the parties and included in general and administration expenses in the statements of operations and comprehensive loss – and amount to \$43,000 and \$100,000, respectively, for the three and nine months ended September 30, 2017 (three and nine months ended September 30, 2016 – \$12,000 and \$91,000, respectively).

## HEALTH, SAFETY, AND ENVIRONMENT

### Health and Safety

People are our most valuable asset. Jaguar sets the life and welfare of its employees, families and communities as a first priority. Our safety and healthcare procedures are focused on promoting health and quality of life in the work environment. Besides reducing our accident rate in the last several years, we show continuous improvement in our records and practices. We have an integrated management system in place that promotes open communication at all levels. Over the past few years, the health and safety team has expanded in order to meet compliance and regulatory requirements, and also to improve our operating standards. Our training program for new employees is extensive and includes the participation of experienced professionals who act as mentors, providing hands-on guidance and conducting periodical reviews. Jaguar applies an extended maternity leave period in order to promote health for newborns and also offers social work assistance in order to support our employees and families in challenging circumstances.

During the third quarter of 2017, the Lost Time Incidents (“LTIs”) remain zero, the same as Q2 2017 and decreased compared to two incidents in Q3 2016. The LTI frequency rate of Q3 2017 remains 0.00 LTIs per million hours, the same as Q2 2017 and decreased as compared to 2.31 LTIs per million hours for Q3 2016. Aligned with improvements to safety records and healthcare programs, Jaguar offers a high standard of life insurance to employees and families. Compared to Q3 2016, our absenteeism rate decreased 32%. For each incident, Management identifies the likely causes and develops remediation plans to prevent future recurrences. The overall LTI frequency rate is calculated as the number of lost-time injuries per million hours worked, including third party contractors. All accidents are analyzed and the underlying causes are identified to implement corrective actions. Proposed actions include the reinforcement of safe behavior with the Loss Prevention Program, thus aiming to strengthen the safety culture at Jaguar. In June 2017, an Internal Safety Audit was performed involving all of Jaguar’s units to check with the implementation of the Company’s Safety Audit Tools. The results of the internal audit are being used to reinforce the safety team actions.

### Environment

Jaguar is environmentally focused and continuously strives to improve our practices. In our commitment to the resources, land, and stakeholders, we work closely with surrounding communities, governments, and other partners to continuously improve the Company’s sustainable development programs. Jaguar’s programs ensure its operations and development efforts protect the environment and surrounding natural resources.

Jaguar’s operations are subject to environmental regulation in Brazil. The Company has not been in full compliance with all environmental laws and regulations or held, or been in full compliance with, all required environmental and health and safety permits at all times. The Company is currently subject to a number of reclamation and remediation liabilities and may have civil or criminal fines or penalties imposed for alleged violations of applicable laws or regulations in Brazil. The Company has

implemented and prioritized control structures and monitoring programs to address environmental non-compliance, and a full reclamation plan for its mining and project sites is being prepared and specific actions are being developed.

During the fourth quarter of 2015, Jaguar updated the reclamation plans for all of the Company's assets in the Iron Quadrangle that were on care and maintenance. The reclamation plans were developed by Jaguar's environmental team along with Agroflor Engenharia e Meio Ambiente ("Agroflor"), a Brazilian company with expertise in environmental studies and identification of liabilities. In Q1 2016, Agroflor completed reclamation plan reports on the Caeté Complex that include Camará, Catita, Serra Paraiso, Rio de Peixe, Ouro Fino, and Sabará. In Q4 2016, Agroflor also completed reclamation plan reports for CPA (Santa Isabel and Palmital) and MTL (Faina). The reports indicated the need for further study of additional geotechnical and topographical information, which was carried out by Jaguar. Topographical surveys started in Q4 2016 and were concluded in Q1 2017. Based on topography results, Jaguar is working on rain water drainage system maintenance, focused on the annual rainy season. Are ongoing actions at Ouro Fino, Rio de Peixe and Sabará. For Palmital a geotechnist was hired to develop reclamation projects and certify the stability of the waste pile, as required by the environmental agency. In September, Faina was inspected by technicians from the environmental agency starting an opportunity to discuss the adequate aspects of a reclamation plan.

In December 2015, the State Regional Environmental Regulation Agency ("SUPRAM") started the evaluation of the renewal request for the operating licence for MTL that was filed in 2012. The operating licence for MTL continues to be valid even after the initial expiration date of June 19, 2012, as the Company has applied for renewal within the legal time frame. Between August 30, 2017 and September 6, 2017, the renewal process was discussed with SUPRAM's team, including 4 days of field inspection at MTL. Jaguar is currently awaiting the conclusion of this step, but additional information maybe requested.

Jaguar's other operating licences are also under analysis by SUPRAM. In accordance with a National Department for Mineral Production ("DNPM") request, Jaguar submitted an official letter issued by SUPRAM to the DNPM, attesting to Jaguar's compliance with the renewal process for the operating licence of Roça Grande in May 2017.

## LITIGATION AND CONTINGENCIES

### Labour Practices

Brazilian labour law is a complex system of statutes and regulations, which in general has a favourable approach to employees of the Company. As such, corporate labour compliance is a key success factor in Brazilian-based operations to minimize the impact of labour claims.

Recently, a new labour legislation has been approved and will come into force in November in 2017. This new legislation aims to allow a more flexible relationship between employee and employer and to reduce the favourable approach towards employees. The Company believes the new legislation will create a more just, balanced and modern environment. It also believes that the new legislation will be a powerful tool in order to mitigate or even eliminate unnecessary labour litigation exposures.

Jaguar works in partnership with local Workers' Unions and has developed a respectful and sustainable relationship towards main management practices such as safety, healthcare, work relations, ethical leadership and continuous improvement on compensation standards aligned with productivity.

Management has been tracking any potential labour law compliance deficiency 'and has since implemented changes in procedures to eliminate those issues going forward and made significant progress during the last year in addressing such deficiencies. In light of this new legislation, the Company's human resources and legal departments have been reviewing the Company's practices and establishing action plans to adapt and improve labour practices. Both departments continue to monitor the implementation of actions to remediate the legacy deficiencies.

## DEVELOPMENT AND EXPLORATION PROJECTS

### Development Project - Gurupi

#### Avanco – Gurupi Project Earn-In Agreement

On October 4, 2016, the Company announced that it entered into an earn-in agreement with Avanco Resources Limited (“Avanco”), pursuant to which Avanco may earn up to a 100% interest in the Gurupi Project. On September 17, 2017, Jaguar and Avanco agreed to a revised, accelerated earn-in agreement with Avanco, pursuant to which Avanco will earn up to a 100% ownership interest in the Gurupi Project after meeting some short-term milestones and making a series of payments to Jaguar.

#### Main Terms of the Revised Accelerated Earn-in Agreement

Upon the satisfactory completion of certain closing conditions, the agreement provides Avanco with the right to acquire 100% of Jaguar’s interest in the Gurupi Project by paying to Jaguar an aggregate cash payment of \$4 million in two installments of \$2 million each (\$2.0 million, due immediately upon signature; \$2.0 million, due immediately upon transfer of ownership). Upon achieving clear title and access to the Gurupi Project, Jaguar will receive in aggregate an additional \$5 million of cash payments, received in a series of 10 instalments of \$500,000 per month. The majority of the Avanco \$9 million in payments are expected to be paid to Jaguar in the 2017 and 2018 fiscal years.

Within 24 months of the initial \$4 million payment, Avanco will arrange to have published an Australian Joint Ore Reserve Committee (JORC) code compliant technical report regarding the Project with mineral reserves in excess of 500,000 ounces of gold. Any delay in this milestone will result in a project delay fee payable to Jaguar of \$250,000 per six months of delayed period. Within 60 months of the initial \$4 million payment, Avanco will aim to commission the Gurupi mine and plant. Any delay in this commissioning milestone will result in a separate project delay fee payable to Jaguar of \$250,000 per six months of delayed period.

Consistent with the original earn-in agreement, Jaguar will retain a life of mine Net Smelter Return (“NSR”) royalty (“Royalty”) from production at Gurupi. The Royalty will be 1% NSR on the first 500,000 ounces of gold or gold ounce equivalents sold; 2% NSR on sales from 500,001 to 1,500,000 ounces of gold or gold ounce equivalents; and 1% NSR on gold sales exceeding 1,500,000 ounces of gold or gold ounce equivalents.

#### Project Update

The Gurupi Project is located in the State of Maranhão, Brazil, and comprises a total area of 140,332 hectares made of 33 mineral claims. Jaguar received its Preliminary License (“LP”) for the Gurupi Project in June 2011. After the LP was granted, Jaguar completed part of the detailed engineering required to obtain the Installation License (“LI”). In January 2012, Jaguar received the LI, which authorizes the construction of Gurupi’s processing plant. On November 20, 2013, Jaguar became aware that the Public Prosecutor in Brazil filed a lawsuit against MCT aiming at suspending the environmental licenses based on a number of unsupported allegations. In the preliminary decision, the judge decided to: (i) suspend the environmental licenses granted to MCT; (ii) prohibit any construction at the gold beneficiation plant; and (iii) stop any kind of negotiation with settlers without the participation of the National Institute for Colonization and Agrarian Reform (“INCRA”).

During the fourth quarter of 2015, Jaguar was formally notified about this injunction. The appeal of the injunction was filed in Q1 2016 as required by the law. The main point of the injunction is that MCT wanted to develop a mine on land that was designated as an agricultural settlement project by INCRA. However, the mineral rights for the region are from the 1980’s and 1990’s, while INCRA established an “Agricultural Settlement” in 2005. Mineral production under the National Department for Mineral Production (“DNPM”) has the same level of importance as agricultural development under Brazilian law.

Jaguar’s defense against the injunction is that there is very little to no agricultural work occurring in the areas of Chega Tudo and Cipoeiro, and only large scale “garimpeiro” (illegal artisanal miners) mining is being carried out. In FY 2015, DNPM

officially published information regarding eight mineral rights belonging to Jaguar. This publication will require Jaguar to complete mineral exploration and deliver a final exploration report to the DNPM within three years. Failure to identify and report mineralization during this period may likely result in a loss of these mineral rights.

During 2016, Jaguar continued the detailed planning for the resumption of limited mineral exploration in order to retain its mineral rights and also continued its interactions and engagement with stakeholders at Gurupi, including senior national government officials and ministries. Discussions have been positive and officials appear supportive of advancing economic activity, including mining, in Maranhão. Meetings with INCRA in Maranhão are ongoing and are critical to resolving the land issues surrounding the project area.

In accordance with the accelerated earn-in agreement, Avanco is now conducting the conversations with INCRA and the environmental licensing process. The exploration program is also under Avanco's management. In Q2 2017, INCRA sent a technical team to Cipoeiro to assess the local settlement and presence of "garimpeiros". A specialized Brazilian company has started to develop the research for a socioeconomic study and prepare a final report to be delivered to INCRA.

On April 26, 2017, Avanco announced upgraded mineral resource estimates from the inferred to indicated category, with 765,000 ounces of gold (grade of 2.0 g/t Au) categorized as Indicated Resources and total Mineral Resources (Indicated and Inferred) of 1,286,000 ounces of gold (grade of 2.0 g/t Au) for the Cipoeiro Deposit.

## **Greenfield Exploration**

Jaguar currently holds approximately 64,000 hectares of mineral rights. New mining legislation in Brazil has been tabled and the outcome of any mining law reform is, as of yet, unknown. The Company intends to assess its holdings in due course, to establish a disposition plan of certain assets in the context of any change to holding cost, which is currently minimal.

Apart from properties in relatively close proximity to the existing mining operations, the only significant greenfield asset within the exploration portfolio is the Pedra Branca target where good grade surface expressions were identified by mapping and channel samples and have led to some 8,000 metres of exploration drilling to date. Due to prior financial constraints, this prospect has remained dormant but offers opportunity for further exploration should funds be available.

## **Pedra Branca Project**

The Pedra Branca Project is located in the State of Ceará in northeastern Brazil and is currently comprised of 18 exploration licences, totalling 34,855 hectares covering a 38-kilometre section of a regional shear zone. Final exploration reports and a Preliminary Economic Analysis ("PEA") have been delivered to DNPM for three of these licences. The concessions are located in and around municipal areas with good infrastructure. The mineralized structures are open along strike with potential for significant gold mineralization.

Further work on the Pedra Branca Project, has been delayed as the Company focuses its efforts on the Turmalina and Caeté operations. Consequently, the Company made only those expenditures required to maintain the claims and land tenure in good standing.

The Pedra Branca Project is 100% owned by Jaguar. Based on the acquisition agreement of the project entered into with Glencore Xstrata plc. ("Glencore"), Glencore holds rights to a NSR of 1% on future gold production and rights of first refusal on any Base Metal Dominant Deposit (as defined in the amendment) discovered which, if exercised, would allow Glencore to hold 70% of equity in a newly formed legal entity to hold such rights upon payment of 300% of the Company's exploration expenditures incurred exclusively on the relevant Base Metal Dominant Area of the property.

## Turmalina – Zona Basal Project

During 2013, the Company completed the final exploration report on the southeastern portion of the Zona Basal target, located 3 kilometres west of the Turmalina plant facility and filed it with the DNPM. The Company has subsequently applied for the mining permit.

## QUALIFIED PERSON

Scientific and technical information contained in this MD&A have been reviewed and approved by Jonathan Victor Hill, BSc (Hons) (Economic Geology - UCT), 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”).

## OUTSTANDING SHARE DATA

The following are the issued and outstanding common shares and numbers of shares issuable under share-based compensation, warrants, and convertible debentures:

	As at November 7, 2017
Issued and outstanding common shares	325,115,403
Stock options	9,445,581
Deferred share units	2,760,965
Finder's warrants	3,073,411
<b>Total</b>	<b>340,395,360</b>

On January 27, 2017, the Company granted 733,740 stock options to executives of the Company. The options are exercisable at a price of C\$0.70 and expire on January 27, 2025. The options vest on a quarterly basis, in twelve equal installments, starting on April 27, 2017, and are exercisable upon vesting. The Company also granted 103,400 Deferred Share Units (“DSUs”) to each of the non-executive directors, totalling a grant of 620,400 DSUs, 50% of which vested immediately, with the remaining 50% vesting July 27, 2017. The DSUs are exercisable upon the retirement of such directors. In addition, the Company granted executives of the Company 278,380 time-vested DSUs, that vest on a quarterly basis, in twelve equal installments, starting on April 27, 2017, and 278,380 performance-vested DSUs, that shall vest if the Company’s stock price reaches C\$1.00 measured on a 5-day volume weighted average price (“VWAP”) basis, and is maintained at that level for at least 20 consecutive trading days. The DSUs granted to executives of the Company are exercisable upon vesting.

On September 21, 2017, an additional 400,000 stock options were granted to executives of the Company, exercisable at a price of C\$0.33 and expiring on September 21, 2022. The options vest on a quarterly basis, in twelve equal instalments, starting on December 21, 2017 and are exercisable upon vesting.

## NON-IFRS PERFORMANCE MEASURES

The Company has included the following non-IFRS performance measures: cash operating costs per tonne of ore processed, cash operating costs per ounce of gold sold, all-in sustaining costs per ounce of gold sold, cash operating margin per ounce of gold sold, all-in sustaining margin per ounce sold, adjusted operating cash flow, free cash flow, earnings before tax, depreciation and amortization (“EBITDA”), adjusted Working Capital, and adjusted EBITDA in this document. These non-IFRS performance measures do not have any standardized meaning prescribed by IFRS and, therefore, may not be comparable to similar measures presented by other companies.

The Company believes that, in addition to conventional measures prepared in accordance with IFRS, certain investors use this information to evaluate the Company's performance. Accordingly, they are intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. More specifically, Management believes that these figures are a useful indicator to investors and management of a mine's performance as they provide: (i) a measure of the mine's cash margin per ounce, by comparison of the cash operating costs per ounce to the price of gold; (ii) the trend in costs as the mine matures; and (iii) an internal benchmark of performance to allow for comparison against other mines.

The definitions of these performance measures and reconciliation of the non-IFRS measures to reported IFRS measures are outlined below.

### Reconciliation of Cash Operating Costs, All-In Sustaining Costs, All-In Costs per Ounce Sold

(\$ thousands, except where indicated)	Three months ended		Nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
Operating costs (per note 15 of the consolidated FS)	\$ 16,116	\$ 16,191	\$ 53,614	\$ 51,657
Cost adjustment <sup>1</sup>	403	129	930	(185)
Adjusted operating expenses	16,519	16,320	54,544	51,472
General & administration expenses	2,521	2,541	7,736	6,966
Corporate stock-based compensation	148	124	850	349
Sustaining capital expenditures	4,624	6,370	15,233	19,246
All-in sustaining cash costs	23,812	25,355	78,363	78,033
Reclamation - accretion (operating sites)	36	240	206	670
<b>All-in sustaining costs</b>	<b>\$ 23,848</b>	<b>\$ 25,595</b>	<b>\$ 78,569</b>	<b>\$ 78,703</b>
Non-sustaining capital expenditures	1,138	1,152	3,401	2,781
Exploration and evaluation costs (greenfield)	107	33	686	50
Reclamation - accretion (non-operating sites)	3	217	47	677
Care and maintenance (non-operating sites)	310	298	995	763
<b>All-in costs</b>	<b>\$ 25,406</b>	<b>\$ 27,295</b>	<b>\$ 83,698</b>	<b>\$ 82,974</b>
Ounces of gold sold	20,422	25,317	62,909	72,167
<b>Cash operating costs per ounce sold</b>	<b>\$ 809</b>	<b>\$ 645</b>	<b>\$ 867</b>	<b>\$ 713</b>
<b>All-in sustaining costs per ounce sold</b>	<b>\$ 1,168</b>	<b>\$ 1,011</b>	<b>\$ 1,249</b>	<b>\$ 1,092</b>
<b>All-in costs per ounce sold</b>	<b>\$ 1,244</b>	<b>\$ 1,078</b>	<b>\$ 1,330</b>	<b>\$ 1,150</b>
<b>Average realized gold price</b>	<b>\$ 1,276</b>	<b>\$ 1,328</b>	<b>\$ 1,250</b>	<b>\$ 1,251</b>
<b>Cash operating margin per ounce sold</b>	<b>\$ 467</b>	<b>\$ 683</b>	<b>\$ 383</b>	<b>\$ 538</b>
<b>All-in sustaining margin per ounce sold</b>	<b>\$ 108</b>	<b>\$ 317</b>	<b>\$ 1</b>	<b>\$ 159</b>

<sup>1</sup> Cost adjustment includes any unusual items recorded during the quarter that do not relate to the current quarter's cost of sales or are non-cash items.



## Reconciliation of Cash Operating Costs, All-In Sustaining Costs per Ounce Sold by Mine Complex/Site

(\$ thousands, except where indicated)	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
<b>Turmalina Complex</b>				
Operating costs	\$ 6,802	\$ 8,426	\$ 24,310	\$ 27,049
Sustaining capital expenditures	2,216	3,207	7,273	10,495
<b>All-in sustaining costs<sup>1</sup></b>	<b>\$ 9,018</b>	<b>\$ 11,633</b>	<b>\$ 31,583</b>	<b>\$ 37,544</b>
Ounces of gold sold	9,082	15,945	33,433	47,615
<b>Cash operating costs per ounce sold<sup>1</sup></b>	<b>\$ 749</b>	<b>\$ 528</b>	<b>\$ 727</b>	<b>\$ 568</b>
<b>All-in sustaining cost per ounce sold<sup>1,2</sup></b>	<b>\$ 993</b>	<b>\$ 730</b>	<b>\$ 945</b>	<b>\$ 788</b>
<b>Caeté Complex</b>				
Operating costs	\$ 9,706	\$ 7,894	\$ 30,235	\$ 24,424
Sustaining capital expenditures	2,408	3,163	7,960	8,751
<b>All-in sustaining costs<sup>1</sup></b>	<b>\$ 12,114</b>	<b>\$ 11,057</b>	<b>\$ 38,195</b>	<b>\$ 33,175</b>
Ounces of gold sold	11,341	9,372	29,477	24,553
<b>Cash operating costs per ounce sold<sup>1</sup></b>	<b>\$ 856</b>	<b>\$ 842</b>	<b>\$ 1,026</b>	<b>\$ 995</b>
<b>All-in sustaining cost per ounce sold<sup>1,2</sup></b>	<b>\$ 1,068</b>	<b>\$ 1,180</b>	<b>\$ 1,296</b>	<b>\$ 1,351</b>
<b>Pilar Mine</b>				
Operating costs	\$ 7,891	\$ 5,957	\$ 25,039	\$ 19,140
Sustaining capital expenditures	2,338	3,052	6,897	7,612
<b>All-in sustaining costs<sup>1</sup></b>	<b>\$ 10,229</b>	<b>\$ 9,009</b>	<b>\$ 31,936</b>	<b>\$ 26,752</b>
Ounces of gold sold	9,821	7,821	25,868	20,812
<b>Cash operating costs per ounce sold<sup>1</sup></b>	<b>\$ 803</b>	<b>\$ 762</b>	<b>\$ 968</b>	<b>\$ 920</b>
<b>All-in sustaining cost per ounce sold<sup>1,2</sup></b>	<b>\$ 1,042</b>	<b>\$ 1,152</b>	<b>\$ 1,235</b>	<b>\$ 1,285</b>
<b>RG Mine</b>				
Operating costs	\$ 1,815	\$ 1,937	\$ 5,196	\$ 5,284
Sustaining capital expenditures	70	111	1,063	1,139
<b>All-in sustaining costs<sup>1</sup></b>	<b>\$ 1,885</b>	<b>\$ 2,048</b>	<b>\$ 6,259</b>	<b>\$ 6,423</b>
Ounces of gold sold	1,520	1,551	3,609	3,741
<b>Cash operating costs per ounce sold<sup>1</sup></b>	<b>\$ 1,195</b>	<b>\$ 1,249</b>	<b>\$ 1,440</b>	<b>\$ 1,412</b>
<b>All-in sustaining cost per ounce sold<sup>1,2</sup></b>	<b>\$ 1,241</b>	<b>\$ 1,320</b>	<b>\$ 1,735</b>	<b>\$ 1,717</b>

<sup>1</sup> Results of individual mines may not add up to the consolidated numbers due to rounding.

<sup>2</sup> The AISC calculation by mine site does not include allocation of Corporate (Toronto and Belo Office G&A).

## Reconciliation of Adjusted Operating Cash Flow

(\$ thousands, except where indicated)	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
Cash generated from operating activities	\$ 7,509	\$ 9,353	\$ 9,583	\$ 29,314
Changes in working capital:				
Inventory	(145)	1,105	770	1,424
Recoverable taxes and other assets	1,628	(567)	2,612	(3,125)
Accounts payable and accrued liabilities	(2,782)	2,930	177	(4,809)
Other provisions and liabilities	(134)	(1,546)	1,860	485
<b>Adjusted operating cash flow</b>	<b>\$ 6,076</b>	<b>\$ 11,275</b>	<b>\$ 15,002</b>	<b>\$ 23,289</b>

## Reconciliation of Free Cash Flow

(\$ thousands, except where indicated)	Three months ended		Nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
Cash generated from operating activities	\$ 7,509	\$ 9,353	\$ 9,583	\$ 29,314
Sustaining capital expenditures	(4,624)	(6,370)	(15,233)	(19,246)
Cash tax refunds	(673)	(11)	(1,468)	(1,013)
<b>Free cash flow</b>	<b>\$ 2,212</b>	<b>\$ 2,972</b>	<b>\$ (7,118)</b>	<b>\$ 9,055</b>
Ounces of gold sold	20,422	25,317	62,909	72,167
<b>Free cash flow per ounce sold</b>	<b>\$ 108</b>	<b>\$ 117</b>	<b>\$ (113)</b>	<b>\$ 125</b>

## Reconciliation of Net Loss to EBITDA and Adjusted EBITDA

(\$ thousands, except where indicated)	Three months ended		Nine months ended	
	September 30,		September 30,	
	2017	2016	2017	2016
Net loss	\$ (7,664)	\$ (31,648)	\$ (18,861)	\$ (73,515)
Income tax expense (recovery)	174	2,199	1,289	1,695
Finance costs	1,034	2,138	4,053	4,469
Depreciation and amortization	5,949	9,509	17,468	25,641
<b>EBITDA</b>	<b>\$ (507)</b>	<b>\$ (17,802)</b>	<b>\$ 3,949</b>	<b>\$ (41,710)</b>
Impairment charges	5,178	-	5,178	-
Changes to legal provisions and recoverable VAT	617	321	2,813	(8,223)
Foreign exchange (gain) loss	638	161	628	2,750
Stock-based compensation	148	124	850	349
Inventory write-down	-	185	929	1,104
Financial instruments (gain) loss	20	31,405	(327)	76,029
<b>Adjusted EBITDA</b>	<b>\$ 6,094</b>	<b>\$ 14,394</b>	<b>\$ 14,020</b>	<b>\$ 30,299</b>

## RISKS AND UNCERTAINTIES

The business of the Company involves significant risk due to the nature of mining, exploration, and development activities. Certain risk factors are related to the mining industry in general while others are specific to Jaguar. The Company's exposure to risks and other uncertainties are particularly described in the Company's Annual Information Form for the year ended December 31, 2016, filed on SEDAR under the profile of Jaguar Mining Inc. Such risk factors could materially affect the future operating results of the Company and could cause actual events to differ materially from those described in forward-looking statements relating to the Company.

Further exploration on, and development of, the Company's properties, will require additional capital. In addition, a positive production decision on any of the Company's development projects would require significant capital for project engineering and construction. Accordingly, the continuing development of the Company's properties will depend upon the Company's ability to either generate sufficient funds internally or to obtain financing through the joint venturing of projects, debt financing, equity financing or other means.

The financial covenants related to the Spratt Facility require the Company to maintain a minimum of \$5.0 million unrestricted cash and cash equivalents and positive working capital computed monthly. Spratt Lending waived the Company's obligation to comply with the positive working capital covenant from the period of April 1, 2017 through June 29, 2017.

The Company's principal operations and mineral properties are located in Brazil. There are additional business and financial risks inherent in doing business in Brazil as compared to the United States or Canada. Since 1996, Transparency International has published the "Corruption Perceptions Index" ("CPI") annually ranking countries by their perceived levels of corruption, as determined by expert assessments and opinion surveys. The CPI ranks countries on a scale from 100 (very clean) to 0 (high corrupt). In 2016 and out of 176 countries in the World, Canada was ranked 9th with CPI score of 82, the United States was ranked 18th with a CPI score of 74, and Brazil was ranked 79th with a CPI score of 40. For North and South America, the average score on the 2016 Corruption Perceptions Index was 44 out of 100. Anything below 50 indicates governments are failing to tackle corruption and it represents a challenge in those countries requiring extra attention by those who conduct business there.

Corruption does not only occur with the misuse of public, government or regulatory powers, it also can occur in business's supplies, inputs and procurement functions (such as illicit rebates, kickbacks and dubious vendor relationships) as well as the inventory and product sales functions (such as inventory shrinkage or skimming). Employees as well as external parties (such as suppliers, distributors and contractors) have opportunities to commit procurement fraud and other wrongs against the Company. While corruption, bribery and fraud risks can never be fully eliminated, the Company reviews and implements controls to reduce the likelihood of these irregularities occurring.

## **CRITICAL ACCOUNTING ESTIMATES**

The preparation of the condensed interim consolidated financial statements in conformity with IFRS requires Management to make estimates, judgments, and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Certain estimates, such as those related to the assessment of recoverability of the carrying amount of property, plant, and equipment and mineral exploration projects, valuation of recoverable taxes, deferred tax assets and liabilities, reclamation provisions, derivatives, liabilities associated with certain long-term incentive plans, measurement of inventory, provisions for legal actions and contingencies, and disclosure of contingent assets and liabilities depend on subjective or complex judgments about matters that may be uncertain. Changes in these estimates could materially impact the Company's condensed interim consolidated financial statements.

The critical accounting estimates, judgments, and assumptions applied in the preparation of the Company's condensed interim consolidated financial statements for the three and nine months ended September 30, 2017, are consistent with those applied and disclosed in the audited annual consolidated financial statements for the year ended December 31, 2016, except for a change in the unit of production depreciation.

Unit of production depreciation – As of January 1, 2017, the Company changed the accounting estimates used to depreciate the Turmalina's mining properties and mineral exploration projects on a unit-of-production basis from using the expected amount of recoverable reserves to the use of the expected amount of recoverable mineral resources. The change in accounting estimate was made to ensure depreciation reflects management's best estimate of the useful life of the Turmalina mine and has been accounted for on a prospective basis. Due to the annual updating of recoverable mineral resources, it is impracticable to estimate the impact of the change in future periods.

Fair value measurement of Net Smelter Royalties – In Q3 2017, the Company executed an Accelerated Earn-In Agreement through which it holds entitlement to a net smelter royalty from Avanco over the Gurupi Project. In determining the fair value of a net smelter royalty agreement, the Company estimates the amount and timing for future cash flows based on a set of key assumptions surrounding the underlying mining project and subsequently discounts such cash flows to net present value. Management's critical estimates include but are not limited to: (i) an average gold price throughout the life of mine, and (ii) a discount rate.

## CHANGES IN ACCOUNTING POLICIES INCLUDING INITIAL ADOPTION

The accounting policies applied in these condensed interim consolidated financial statements are consistent with those used in the Company's audited annual consolidated financial statements for the year ended December 31, 2016, except for the following:

- IAS 12 Income Taxes ("IAS 12"), amended by the IASB that was effective and adopted as of January 1, 2017: In January 2016, the IASB issued amendments to IAS 12. The amendments clarify that the existence of a deductible temporary difference is not affected by possible future changes in the carrying amount or expected manner of recovery of the asset and also clarify the methodology to determine the future taxable profits used for assessing the utilization of deductible temporary differences. There was no impact on the Company's condensed interim consolidated financial statements upon adoption of this standard.
- Assets Held for Sale: Non-current assets, or disposals of groups comprising assets and liabilities, are classified as held for sale if it is highly probable that they will be recovered primarily through sale rather than through continuing use. Assets held for sale are presented separately in the current section of the balance sheet. Immediately before the initial classification of the assets or disposal groups as held for sale, the carrying amounts of the assets (or all the assets and liabilities in the disposal groups) are measured in accordance with their applicable accounting policy. Non-current assets held for sale (and disposal groups) are subsequently measured at the lower of their carrying amount and fair value less cost to sell. Non-current assets held for sale (and disposal groups) are no longer depreciated.

The following are recent pronouncements approved by the IASB that are pending adoption:

- IFRS 2 Share-based Payment ("IFRS 2") – In June 2016, the IASB issued amendments to IFRS 2 Share-based Payment, covering the measurement of cash-settled share-based payments, classification of share-based payments settled net of tax withholdings, and accounting for a modification of a share-based payment from cash-settled to equity-settled. The new requirements could affect the classification and/or measurement of these arrangements, and potentially the timing and amount of expense recognized for new and outstanding awards. The amendments apply for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Company is performing an evaluation of the impacts of the amendments to IFRS 2 on the Company's consolidated financial statements but does not expect such to be material.
- IFRS 9 Financial Instruments ("IFRS 9") – In July 2014, the IASB issued the final version of IFRS 9 Financial Instruments, bringing together the classification and measurement, impairment and hedge accounting phases of the IASB's project to replace IAS 39 Financial Instruments: Recognition and Measurement. The mandatory effective date of IFRS 9 would be annual periods beginning on or after January 1, 2018, with early adoption permitted. The Company is performing an evaluation of the impacts of IFRS 9 on the Company's consolidated financial statements but does not expect such to be material.
- IFRS 15 Revenue from Contracts with Customers ("IFRS 15") – In May 2014, the IASB issued IFRS 15, which covers principles that an entity shall apply to report useful information to users of financial statements about the nature, amount, timing, and uncertainty of revenue and cash flows arising from a contract with a customer. In September 2015, the IASB deferred the effective date of the standard to annual reporting periods beginning on or after January 1, 2018, with earlier application permitted. The Company is performing an evaluation of the impacts of IFRS 15 on the Company's consolidated financial statements but does not expect such to be material.
- IFRS 16 Leases ("IFRS 16") – In January 2016, the IASB issued IFRS 16, which requires lessees to recognize assets and liabilities for most leases. Application of the standard is mandatory for annual reporting periods beginning on or after January 1, 2019, with earlier application permitted, provided the new revenue standard, IFRS 15, has been applied or is applied at the same date as IFRS 16. The impact of IFRS 16 on the Company's consolidated financial statements has not yet been determined.
- IFRIC 22 Foreign Currency Transactions and Advance Consideration ("IFRIC 22") – In December 2016, the IASB issued IFRIC 22. IFRIC 22 clarifies the date that should be used for translation when a foreign currency transaction involves an advance payment or receipt. The Interpretation is applicable for annual periods beginning on or after January 1, 2018. The Interpretation is applicable for annual periods beginning on or after January 1, 2018. The Company is performing an

evaluation of the impacts of IFRIC 22 on the Company's consolidated financial statements but does not expect such to be material.

- IFRIC 23 Uncertainty over Income Tax Treatments ("IFRIC 23") In June 2017, the IASB issued IFRIC 23 Uncertainty over Income Tax Treatments. The interpretation seeks to bring clarity to the accounting for income tax that have yet to be accepted by tax authorities and provides requirements, in addition to the requirements in IAS 12 Income Taxes, by specifying how to reflect the effects of uncertainty in accounting for income taxes. IFRIC 23 is effective for annual reporting periods beginning on or after January 1, 2019, with earlier adoption permitted. The impact of IFRIC 23 on the Company's consolidated financial statements has not yet been determined.

These new standards have not been applied in preparing the consolidated financial statements, however, they may impact future periods.

## **DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROLS OVER FINANCIAL REPORTING**

### *Disclosure Controls and Procedures*

Disclosure controls and procedures are designed to provide reasonable assurance that material information is gathered and reported to senior management, including the President and Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO"), as appropriate to permit timely decisions regarding public disclosure.

The Company's Management, including the CEO and CFO, has as at September 30, 2017, designed Disclosure Controls and Procedures (as defined in National Instrument 52-109 of the Canadian Securities Administrators), or caused them to be designed under their supervision, to provide reasonable assurance that material information relating to the issuer is made known to them by others, particularly during the period in which the interim filings are being prepared; and information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation.

### *Internal Control over Financial Reporting*

The Company's Management, including the CEO and CFO, is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, the CEO and CFO and effected by Management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. There have been no changes in the Company's internal control over financial reporting during the three ended September 30, 2017, that have materially affected, or are reasonably likely to affect, the Company's internal control over financial reporting.

### *Limitations of Controls and Procedures*

The Company's Management, including the CEO and CFO, believe that disclosure controls and procedures and internal control over financial reporting, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, they cannot provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been prevented or detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by unauthorized override of

the controls. The design of any control system also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed.

## **CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

Certain statements in this MD&A constitute “forward-looking information” within the meaning of applicable Canadian securities legislation. This forward-looking information includes, but is not limited to, statements concerning the Company’s future objectives, Measured and Indicated Mineral Resources, Proven and Probable Mineral Reserves, their average grade, the commencement period of production, cash operating costs per ounce and completion dates of feasibility studies, gold production and sales targets, capital expenditure costs, future profitability and growth in mineral reserves. Forward-looking information can be identified by the use of words such as, “are expected”, “is forecast”, “is targeted”, “approximately”, “plans”, “anticipates”, “projects”, “anticipates”, “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. Forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results or performance to be materially different from any future results or performance expressed or implied by the forward-looking information. These factors include the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drilling results and other geological data, fluctuating gold prices and monetary exchange rates, the possibility of project delays and cost overruns or unanticipated costs and expenses, uncertainties relating to the availability and costs of financing needed in the future, uncertainties related to production rates, timing of production and the cash and total costs of production, changes in applicable laws including laws related to mining development, environmental protection, and the protection of the health and safety of mine workers, the availability of labour and equipment, the possibility of civil insurrection, labour strikes and work stoppages and changes in general economic conditions. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those contained in forward-looking information, there may be other factors that could cause actions, events or results to differ from those anticipated, estimated or intended.

This forward-looking information represents the Company’s views as of the date of this MD&A. The Company anticipates that subsequent events and developments may cause the Company’s views to change. The Company does not undertake to update any forward-looking information, either written or oral, that may be made from time to time by, or on behalf of the Company, subsequent to the date of this discussion, other than as required by law. For a discussion of important factors affecting the Company, including fluctuations in the price of gold and exchange rates, uncertainty in the calculation of mineral resources, competition, uncertainty concerning geological conditions and governmental regulations and assumptions underlying the Company’s forward-looking information, see “CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS” and “RISK FACTORS” in the Company’s Annual Information Form for the year ended December 31, 2016 that can be accessed under the profile of Jaguar Mining Inc. on SEDAR at [www.sedar.com](http://www.sedar.com). Further information about the Company is available on its corporate website at [www.jaguarmining.com](http://www.jaguarmining.com).