



NEWS RELEASE

September 20, 2017

TSX: JAG

FOR IMMEDIATE RELEASE

Jaguar Mining Intercepts High Grade Gold Mineralization Including Visible Gold at Pilar; Turmalina Growth Exploration Program Achieves First 20% Completion Milestone

Toronto, Canada, September 20, 2017 - Jaguar Mining Inc. ("Jaguar" or the "Company") (TSX: JAG) today announced further positive results from three deep drill holes (1,348 m) as part of its growth exploration program targeting the down-plunge continuity of the principal mineralized Banded Iron Formation Orebodies at Pilar Gold Mine ("Pilar") in Minas Gerais, Brazil (see August 16th, 2017 press release). Drill results include high-grade gold mineralization and in places visible gold, not recently seen, down-plunge from current resources. Importantly, these results validate the projected mineralization plunge and grade of the targeted mineralization well beyond current mine production infrastructure. At the Turmalina Gold Mine ("Turmalina"), three diamond drill rigs are currently focused on growth exploration drilling, targeting projected down-plunge extensions, below current mining levels and infrastructure, on both Orebody A and Orebody C. To date, a total of six holes, totaling over 2,795 m, have been completed with initial results expected to be reported during Q4 2017.

Highlights and Key Intercepts – Pilar

- Deep drilling continues to intersect high-grade visible gold mineralization, down-plunge of current resources. Key intercepts include **15.9 g/t Au over 11.8 m (ETW 9.6 m), 25.3 g/t Au over 6.0 m (ETW 5.2 m) and 5.3 g/t Au over 49.3 m (ETW 38.7 m)** 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 m (ETW 22.5 m)** in hole PPL449A (refer to Table #1, Figure #1, and Appendix #1 and #2).
- 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 (refer to Figure #1).
- 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 m of diamond drilling has been approved at Pilar aimed at increasing drilling density for inclusion in the updated Mineral Resource and Mineral Reserve estimate expected in early 2018.

Definitions: ETW - estimated true width g/t Au - grams per tonne gold m – metres

Rod Lamond, President and Chief Executive Officer, Jaguar Mining commented: "These additional drill results continue to expand the overall size of the high-grade Banded Iron Formation Orebodies at Pilar and confirm the down-plunge continuity of high-grade mineralized structures well beyond current mine plans. The fact we are intersecting impressive visible gold mineralization with increasing grade and thickness at depth supports our view there is strong potential to add significant new resources and extend mine life at Pilar. Today's results are extremely encouraging and we are becoming increasingly confident in the resource upside of Pilar, which could rival Turmalina, and the mine's ability to have a very positive impact on the Company's future."

"Our commitment to continuing to invest capital in priority growth exploration projects at Pilar is paying off. Operationally, we have made significant strides to increase operating cash flow by reducing and controlling costs. We are realizing tremendous value from redeploying capital made available from these initiatives. We are focused on allocating capital only towards the highest-priority exploration targets across all mine sites that will create long-term sustainable value through increased near-mine Mineral Reserves and Mineral Resources. We are also optimistic that the drill program commenced at Turmalina may deliver similar exploration success when we report drill results before year-end."

Jon Hill, Jaguar's Senior Expert Advisor (Geology and Exploration) to the Management Committee commented: "Today's exceptional results, along with those reported last month, confirm the increased tenor of mineralization down-plunge from current production levels. Looking ahead, we are focused on incorporating this mineralization into Pilar's mineral resource model and leveraging the potential benefit of high quality mineralization into the mine plan. These high-grade intersections validate the predictive structural models used to project the plunge persistent mineralization to depth, while also demonstrating the material upside potential of this mineralization to extend even further down-plunge. Growth drilling at Turmalina has commenced smoothly and we look forward to reporting positive results by year-end."

Mine Drill Results and Intercepts – Pilar

Drill results provide the potential to add substantial new mineral resources at Pilar and include the following key intercepts:

Banded Iron Formation Orebodies:

- Drill hole PPL445 intercepted **15.9 g/t Au over 11.8 m (ETW 9.6 m)**
- Drill hole PPL445 intercepted **25.3 g/t Au over 6.0 m (ETW 5.2 m)**
- Drill hole PPL 450 intercepted **5.3 g/t Au over 49.3 m (ETW 38.7 m)**
 - o Including an intercept of **11.0 g/t Au over 5.3 m (ETW 4.1 m)**
 - o Including an intercept of **8.3 g/t Au over 5.5 m (ETW 4.3 m)**
- Drill hole PPL 450 intercepted **4.9 g/t Au over 8.2 m (ETW 7.4 m)**
- Drill hole PPL 450 intercepted **5.2 g/t Au over 7.4 m (ETW 6.8 m)**
 - o Including an intercept of **10.9 g/t Au over 2.9 m (ETW 2.2 m)**
- Drill hole PPL451 intercepted **7.7 g/t Au over 20.6 m (ETW 19.8 m)**

Please refer to Table #1, Figure #1 and Appendix #1 and #2 for more details.

Growth Exploration Program Update – Turmalina

- Three diamond drill rigs commenced approximately 11,355 m of growth exploration drilling in July 2017 targeting down-plunge extensions to the high grade Orebody A at depth, while also targeting extensions of Orebody C at shallower depths.
- Approximately 20% of the planned program has been completed to date including a total of six holes, five holes for Orebody A and one hole for Orebody C, totaling 2,795 m.
- Drilling is being undertaken from a hanging wall development drive specifically prepared and completed for this program on Level 10-1. Drilling is intended to reach Levels 12 to 16, up to 420 m vertically below the current development and 300 m below the current Inferred Resources (refer to Figure #2).
- At shallower levels, drilling will target projected down-plunge extensions to Orebody C which, once confirmed, will allow access for mining from existing infrastructure between Levels 4 and 10 (see Figure #3).
- Regular updates on progress with results are expected to be released over the coming months prior to reporting updated Mineral Reserves and Mineral Resources in March 2018.

Qualified Person

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

Quality Control

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

HQ, NQ, and BQ size drill core is sawn in half with a diamond saw. Samples are selected for analysis in standard intervals according to geological characteristics such as lithology and hydrothermal alteration contents. All diamond drill hole collars are accurately surveyed using a Total Stations instrument and down-hole deviations are surveyed using non-magnetic equipment with Icefield Tools' Gyro Path® NSG equipment and SPT Stockholm Precision Tools with GyroMaster™ Solid State [North Seeker].

Mean grades are calculated using a variable lower grade cut-off (generally 0.5 g/t Au). No upper gold grade cut has been applied to the data. However, the requirement for assay top cutting will be assessed during future resource work.

Half of the sawed sample is forwarded to the analytical laboratory for analysis while the remaining half of the core is stored in a secure location. The drill core samples are transported in securely sealed bags and sent for physical preparation to the independent ALS Brasil (subsidiary of ALS Global) laboratory located in Vespasiano, Minas Gerais, Brazil. The analysis is conducted at ALS Global's respective facilities (fire assay are conducted by ALS Global in Lima, Peru and multi-elementary analysis are conducted by ALS Global in Vancouver, Canada). ALS has accreditation in global management system that meets all requirements of international standards ISO/IEC 17025:2005 and ISO 9001:2015. All major ALS geochemistry analytical laboratories are accredited to ISO/IEC 17025:2005 for specific analytical procedures.

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

The Iron Quadrangle

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

About Jaguar Mining Inc.

Jaguar Mining Inc. is a Canadian-listed junior gold mining, development, and exploration company operating in Brazil with three gold mining complexes, and a large land package with significant upside exploration potential from mineral claims covering an area of approximately 192,000 hectares. The Company's principal operating assets are located in the Iron Quadrangle, a prolific greenstone belt in the state of Minas Gerais and include the Turmalina Gold Mine Complex and Caeté Gold Mine Complex, which combined produce approximately 95,000 ounces of gold annually. The Company also owns the Paciência Gold Mine Complex, which has been on care and maintenance since 2012. Additional information is available on the Company's website at www.jaguarmining.com.

For further information please contact:

Rodney Lamond
President & Chief Executive Officer
Jaguar Mining Inc.
rodney.lamond@jaguarmining.com
416-847-1854

FORWARD-LOOKING STATEMENTS

Certain statements in this news release constitute "forward-looking information" within the meaning of applicable Canadian securities legislation. Forward-looking statements and information are provided for the purpose of providing information about management's expectations and plans relating to the future. All of the forward-looking information set forth in this news release is qualified by the cautionary statements below and those made

in our other filings with the securities regulators in Canada. Forward-looking information contained in forward-looking statements can be identified by the use of words such as "are expected", "is forecast", "is targeted," "approximately," "plans," "anticipates," "projects," "continue," "estimate," "believe," or variations of such words and phrases or statements that certain actions, events or results "may," "could," "would," "might," or "will" be taken, occur or be achieved. All statements, other than statements of historical fact, may be considered to be or include forward-looking information. These forward-looking statements are made as of the date of this news release and the dates of technical reports, as applicable. This news release contains forward-looking information regarding potential and, among other things, expected future mineral resources, potential mineral production opportunities, geological and mineral exploration statistics, ore grades, current and expected future assay results, and definition/delineation/exploration drilling at the Pilar Gold Mine and the Turmalina Gold Mine in Brazil, as well as forward-looking information regarding costs of production, capital expenditures, costs and timing of the development of projects and new deposits, success of exploration, development and mining activities, capital requirements, project studies, mine life extensions, and continuous improvement initiatives. The Company has made numerous assumptions with respect to forward-looking information contained herein, including, among other things, assumptions about the estimated timeline and for the development of the drill program at the Pilar Gold Mine (and its expanded exploration footprint) and the Turmalina Gold Mine; its mineral properties; the supply and demand for, and the level and volatility of the price of, gold; the accuracy of reserve and resource estimates and the assumptions on which the reserve and resource estimates are based; the receipt of necessary permits; market competition; ongoing relations with employees and impacted communities; and political and legal developments in any jurisdiction in which the Company operates being consistent with its current expectations including, without limitation, the impact of any potential power rationing, tailings facility regulation, exploration and mine operating licenses and permits being obtained and renewed and/or there being adverse amendments to mining or other laws in Brazil and any changes to general business and economic conditions. Forward-looking information involves a number of known and unknown risks and uncertainties, including among others: the risk of Jaguar not meeting its plans regarding its operations and financial performance; uncertainties with respect to the price of gold, labor disruptions, mechanical failures, increase in costs, environmental compliance and change in environmental legislation and regulation, weather delays and increased costs or production delays due to natural disasters, power disruptions, procurement and delivery of parts and supplies to the operations; uncertainties inherent to capital markets in general (including the sometimes volatile valuation of securities and an uncertain ability to raise new capital) and other risks inherent to the gold exploration, development and production industry, which, if incorrect, may cause actual results to differ materially from those anticipated by the Company and described herein. In addition, there are risks and hazards associated with the business of gold exploration, development, mining and production, including without limitation environmental hazards, tailings dam failures, industrial accidents and workplace safety problems, unusual or unexpected geological formations, pressures, cave-ins, flooding, chemical spills, and gold bullion thefts and losses (and the risk of inadequate insurance, or the inability to obtain insurance, to cover these risks). Although we have attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information.

Table #1

Tabulation of drilling results from the Growth Exploration Program at Pilar Mine that targeted the principal Banded Iron Formation mineralization from Levels 11 to 16 up to 350 m vertically below current development and 250 m below the current Inferred Resources.

Pilar Drill Results							
Hole ID	From (m)	To (m)	Down Hole Interval (m)	Estimated True Width (m)	Gold Grade (g/t Au)	ETW Grade (g/t Au)	Date
PPL445	57.0	67.0	10.1	9.1	2.4	21.5	June 22, 2017
	116.0	125.0	9.0	8.2	2.0	16.2	
	138.0	144.0	6.0	5.2	25.3	132.1	
	154.0	165.8	11.8	9.6	15.9	152.5	
PPL450	27.7	34.1	6.4	4.1	3.1	12.7	July 18, 2017
	63.0	71.2	8.2	7.4	4.9	36.3	
	77.8	81.4	3.6	3.2	5.1	16.2	
	164.1	171.5	7.4	6.8	5.2	35.0	
Including	168.7	171.5	2.9	2.2	10.9	24.2	
PPL450	372.1	421.4	49.3	38.7	5.3	206.0	
Including	385.7	391.0	5.3	4.1	11.0	45.2	
Including	415.9	421.4	5.5	4.3	8.3	35.5	
PPL450	495.5	496.9	1.4	1.4	6.6	9.3	
	514.3	517.2	3.0	2.9	4.0	11.3	
PPL451	1.9	6.4	4.6	4.3	1.5	6.5	July 25, 2017
	16.3	36.9	20.6	19.8	7.7	152.5	
	41.9	51.3	9.4	9.0	3.2	28.5	
	71.1	76.0	5.0	4.5	1.9	8.5	

Figure #1

Figure showing the location of growth exploration diamond drill holes reported relative to the current mine infrastructure and the projected down-plunge position of the principal Pilar Orebodies. The program targeted mineralization between Levels 11 to 16, up to 350 m vertically below current development and 250 m below the current Inferred Resources.

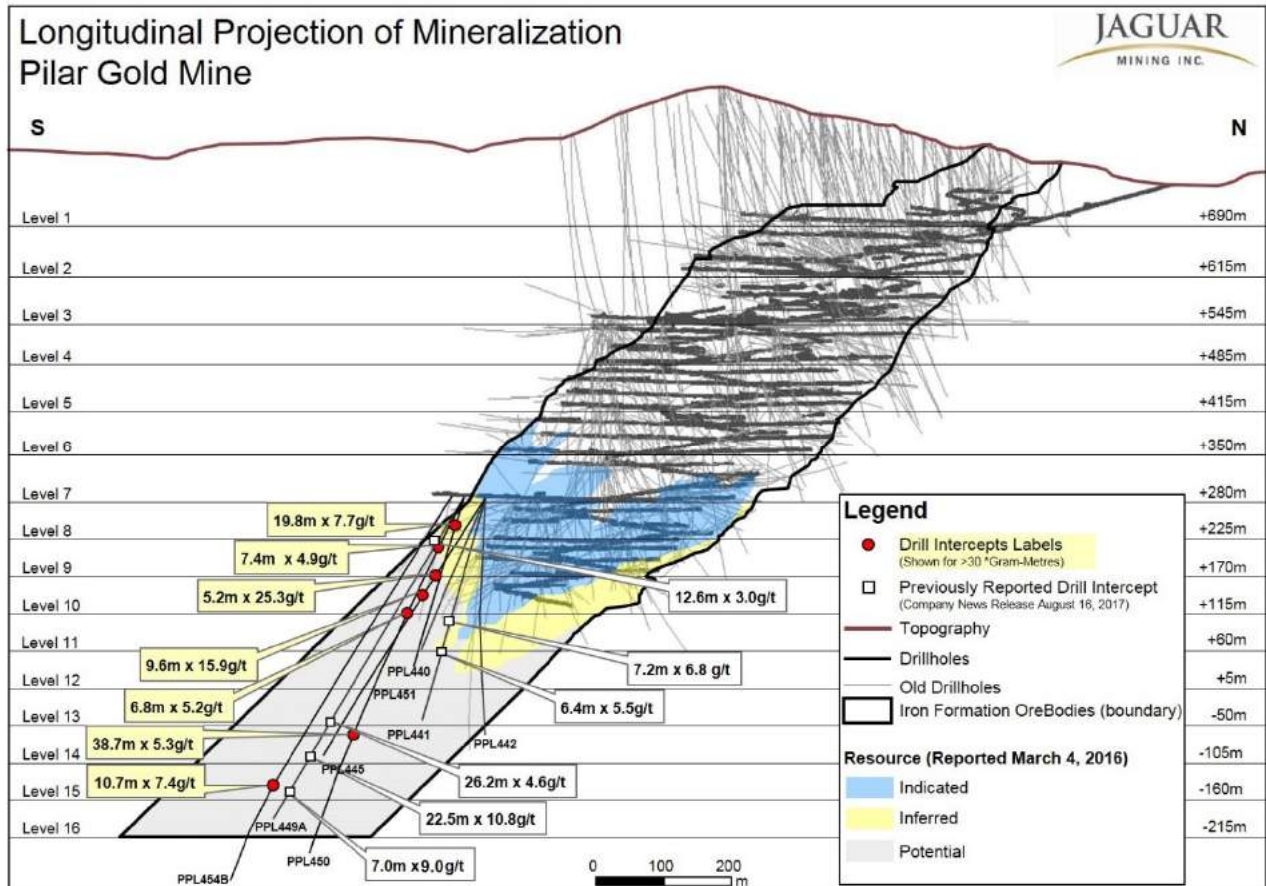


Figure #2

This figure shows the planned drilling configuration for targeting the down-plunge extensions of Orebody A at Turmalina and the current GT contours.

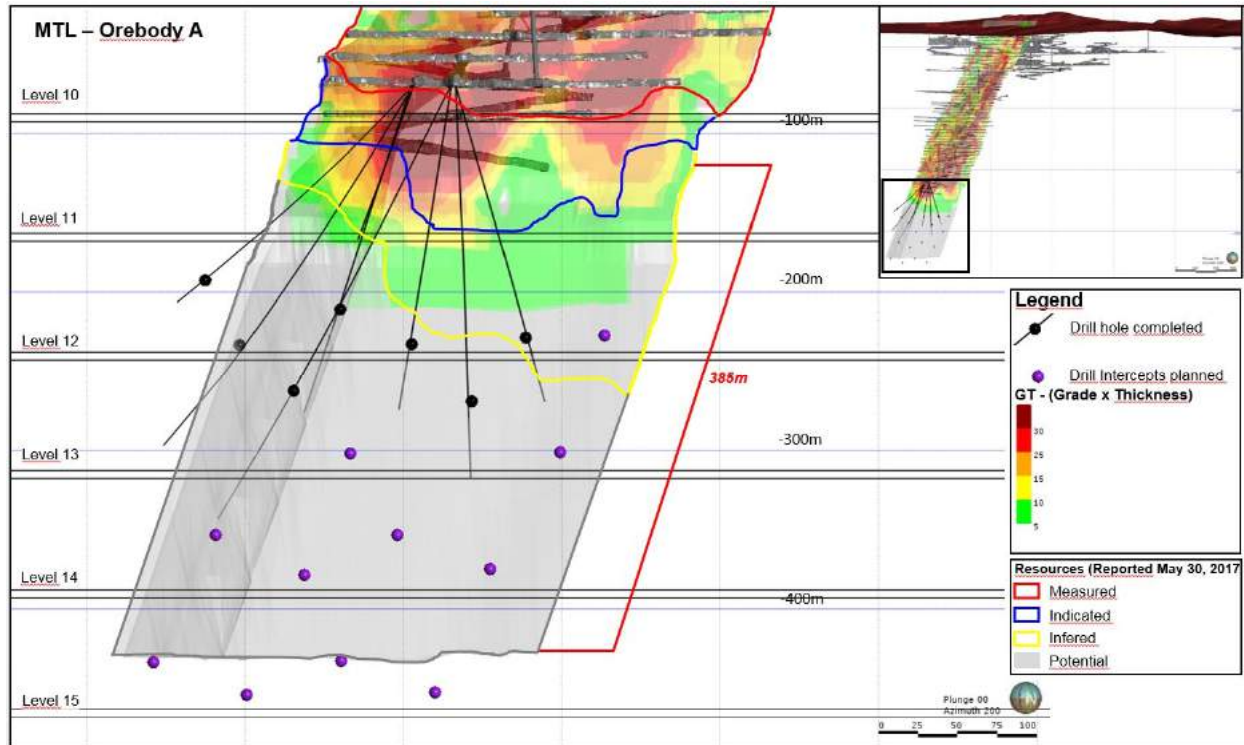
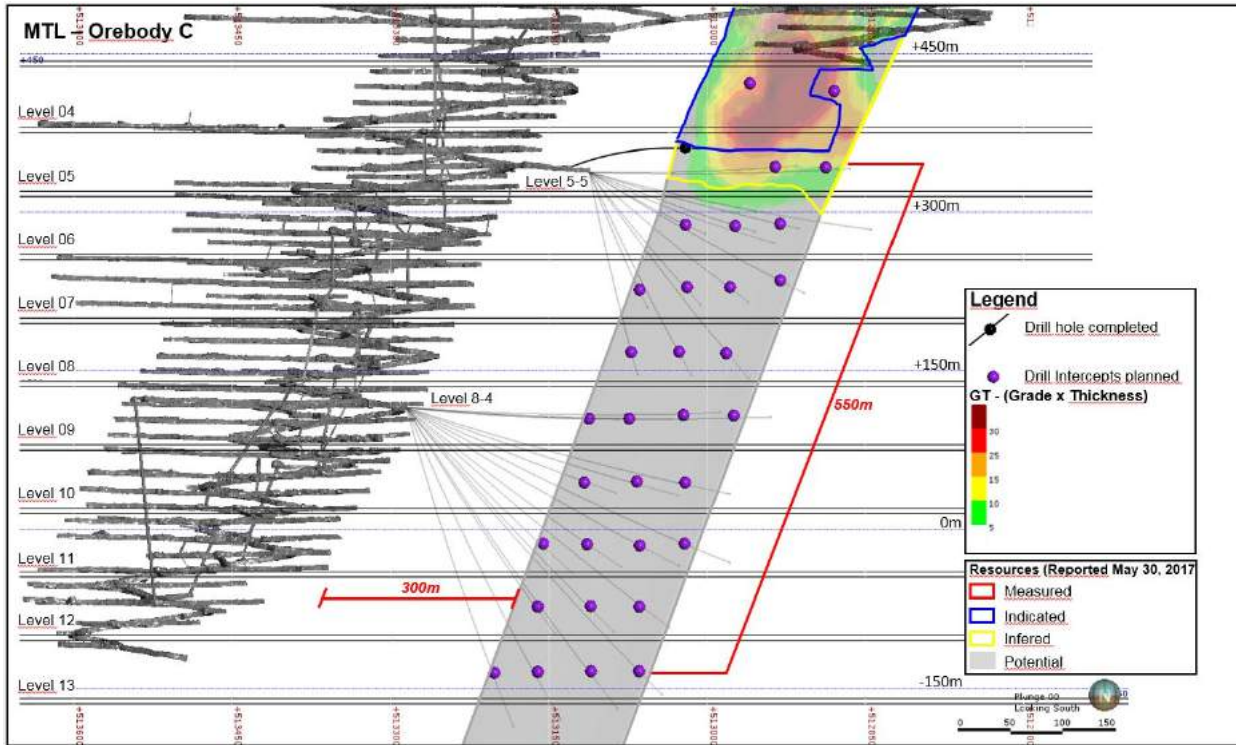


Figure #3

This figure shows a longitudinal section (SE to NW) of Orebody C at Turmalina highlighting the southeast portion of the orebody and the planned layout of drill holes for the recently started program targeting projected down-plunge extensions to the orebody between Levels 7 and 16.



Appendix 1: Pilar Consolidated Drill Results

Pilar Drill Results							
Hole ID	From (m)	To (m)	Down Hole Interval (m)	Estimated True Width (m)	Gold Grade (g/t Au)	GT (ETW)	Date
PPL440	45.7	53.1	7.4	6.9	1.4	9.5	April 14, 2017
	99.8	102.5	2.7	2.3	1.7	3.9	
	277.8	279.3	1.5	1.4	4.5	6.2	
PPL441	64.8	68.4	3.6	3.2	7.1	22.9	June 3, 2017
	72.9	74.4	1.6	1.4	2.2	3.0	
	115.7	123.6	7.9	6.4	2.3	14.5	
	127.6	132.4	4.8	4.6	6.1	28.1	
	185.8	189.2	3.4	2.3	1.6	3.7	
	204.7	233.7	29.0	7.2	6.8	48.3	
Including	223.4	233.7	10.3	2.5	8.9	22.5	
PPL441	248.4	252.9	4.5	1.1	3.9	4.2	
	276.1	282.7	6.5	6.4	5.5	35.1	
	288.2	298.4	10.3	9.4	2.1	19.6	
PPL442	71.3	80.9	9.6	8.0	2.3	18.5	May 30, 2017
	132.3	134.0	1.6	1.4	1.4	1.9	
PPL449A	9.6	12.6	3.0	2.9	4.4	12.7	June 5, 2017
	72.0	86.9	14.9	12.6	3.0	37.3	
	95.0	97.0	2.0	2.0	3.5	6.8	
	368.5	373.2	4.7	4.3	6.7	28.8	
	376.7	410.9	34.2	26.2	4.6	120.2	
Including	405.8	410.9	5.1	3.9	10.8	42.3	
PPL449A	440.8	470.0	29.3	22.5	10.8	243.2	
Including	440.8	447.1	6.4	4.9	10.5	51.2	
PPL449A	498.6	506.9	8.3	7.6	1.6	12.3	
	510.7	513.2	2.5	2.2	4.9	10.7	
	517.7	525.3	7.6	7.0	9.0	63.0	
Including	520.7	524.0	3.4	3.1	11.5	35.1	

Pillar Drill Results							
Hole ID	From (m)	To (m)	Down Hole Interval (m)	Estimated True Width (m)	Gold Grade (g/t Au)	GT (ETW)	Date
PPL445	57.0	67.0	10.1	9.1	2.4	21.5	June 22, 2017
	116.0	125.0	9.0	8.2	2.0	16.2	
	138.0	144.0	6.0	5.2	25.3	132.1	
Including	139.1	143.0	3.9	3.4	36.6	125.8	
PPL445	154.0	165.8	11.8	9.6	15.9	152.5	
Including	161.9	165.8	3.9	3.2	29.5	93.5	
PPL450	27.7	34.1	6.4	4.1	3.1	12.7	July 18, 2017
	63.0	71.2	8.2	7.4	4.9	36.3	
	77.8	81.4	3.6	3.2	5.1	16.2	
	164.1	171.5	7.4	6.8	5.2	35.0	
Including	168.7	171.5	2.9	2.2	10.9	24.2	
PPL450	372.1	421.4	49.3	38.7	5.3	206.0	
Including	385.7	391.0	5.3	4.1	11.0	45.2	
Including	415.9	421.4	5.5	4.3	8.3	35.5	
PPL450	495.5	496.9	1.4	1.4	6.6	9.3	
	514.3	517.2	3.0	2.9	4.0	11.3	
PPL451	1.9	6.4	4.6	4.3	1.5	6.5	July 25, 2017
	16.3	36.9	20.6	19.8	7.7	152.5	
	41.9	51.3	9.4	9.0	3.2	28.5	
	71.1	76.0	5.0	4.5	1.9	8.5	
PPL454B	522.2	535.6	13.4	10.7	7.4	78.8	July 25, 2017
PPL454	No significant results. Hole stopped for technical reasons above target zone						August 6, 2017
PPL449	No significant results. Hole stopped for technical reasons above target zone						May 17, 2017
PPL447	No significant results						August 1, 2017
PPL457	No significant results						August 2, 2017

Appendix 2: Pilar Drill Hole Data

Hole ID	Easting (m)	Northing (m)	Elevation (m)	Collar Azimuth (°)	Collar Dip (°)	Total Depth (m)
PPL440	662850.8	7788543.2	285.7	236.3	-52.4	310.4
PPL441	662850.7	7788544.0	285.7	242.6	-58.1	407.5
PPL442	662850.7	7788544.5	285.7	257.4	-63.8	413.8
PPL445	662852.0	7788543.1	285.7	195.6	-56.6	491.6
PPL449A	662854.9	7788511.6	286.5	187.2	-58.7	557.9
PPL450	662855.4	7788511.8	286.5	187.1	-62.6	591.0
PPL451	662855.1	7788511.9	286.5	198.1	-70.8	264.8
PPL454B	662863.6	7788494.9	287.5	182.5	-57.4	728.6
PPL454	662863.5	7788494.9	287.4	185.7	-55.7	141.6
PPL449	662854.9	7788511.6	286.5	201.9	-58.2	146.9
PPL447	662851.3	7788544.1	285.7	232.8	-78.0	386.8
PPL457	662863.4	7788495.3	287.5	188.4	-70.2	194.3