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## Turquoise Hill announces first quarter 2019 production and provides underground development update

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Turquoise Hill Resources today announced first quarter 2019 production for Oyu Tolgoi and provided an update on underground development.

### Highlights

- Copper production of 45,800 tonnes, up 18.2% on Q1'18
- Gold production of 120,000 ounces, up 187.6% on Q1'18
- On track to achieve 2019 copper and gold production guidance

Ulf Quellmann, Chief Executive Officer of Turquoise Hill, said, "The Oyu Tolgoi open pit delivered another strong operational performance in the first quarter of 2019. Mined material was higher than the same period last year, and we continued to benefit from processing high grade material from Phase 4A. Copper and gold grades are expected to decline over the remainder of the year as we process a higher proportion of Phase 6 ore, but we are well positioned to meet our 2019 copper and gold production guidance.

"Rio Tinto, as project manager, has advised that it has completed a review of the fit-out and commissioning issues at Shaft 2 and it now expects Shaft 2 to be completed by the end of October 2019. Turquoise Hill will review the cause and impact of this further delay to Shaft 2."

As expected, mill throughput in Q1'19 decreased 3.2% over Q1'18 due to the concentrator processing harder Phase 4 ore and planned plant maintenance. This was offset by higher copper and gold mill head grades as mining advanced into the high-grade zone of Phase 4A, compared to Q1'18 when lower grade Phase 6 was processed. Recovery rates also benefited from the processing of higher-grade ore, with copper and gold recovery rates up 5.4% and 27.4% on Q1'18 respectively. Copper production increased 18.2% over Q1'18 due to increased head grade and recovery rate. Gold production increased 187.6% over Q1'18 primarily due to a 135.2% increase in head grade resulting from the increased contribution of Phase 4A.

Average gold mill head grades are expected to decline significantly over the remainder of 2019, particularly in the second half as softer, lower grade Phase 6 ore, and some material from mine stockpiles are processed. Average copper mill head grades are also expected to be lower over the remainder of the year.

Oyu Tolgoi is expected to produce 125,000 to 155,000 tonnes of copper and 180,000 to 220,000 ounces of gold in concentrates for 2019. Mill throughput for 2019 is expected to be approximately 40 million tonnes.

### Underground development

Work continues on critical Shaft 2 equipping activities, central heating plant, mine infrastructure, underground materials handling systems and on priority underground development. Pre-sinking works for Shaft 3 and Shaft 4 have also commenced.



Rio Tinto, as project manager, has advised that the fit-out and commissioning work on Shaft 2 (the main production and services shaft) is now expected to be completed by the end of October 2019. As previously announced, more detailed geotechnical information and different ground conditions have required a review of the mine design and the development schedule. The impact of these changes, including the further delay to Shaft 2, will be included in the definitive estimate review, which is expected to be completed towards the end of the year. In parallel, Turquoise Hill will incorporate the impact of any further delay to sustainable first production beyond the end of Q3'21 in Turquoise Hill's cash flows, liquidity and financing projections. Turquoise Hill will also explore potential mitigation options.

## Oyu Tolgoi Production Data

All data represents full production and sales on a 100% basis

	1Q 2018	2Q 2018	3Q 2018	4Q 2018	1Q 2019	Q1'19 vs. Q1'18	Full Year 2018
Open pit material mined ('000 tonnes)	23,131	22,792	22,523	22,863	<b>23,943</b>	3.5%	<b>91,309</b>
Ore treated ('000 tonnes)	9,561	10,164	9,652	9,361	<b>9,255</b>	-3.2%	<b>38,738</b>
Average mill head grades:							
Copper (%)	0.51	0.48	0.51	0.55	<b>0.57</b>	12.0%	<b>0.51</b>
Gold (g/t)	0.25	0.26	0.38	0.56	<b>0.58</b>	135.2%	<b>0.36</b>
Silver (g/t)	1.32	1.17	1.19	1.22	<b>1.25</b>	-4.9%	<b>1.22</b>
Concentrates produced ('000 tonnes)	177.3	178.8	179.8	189.0	<b>210.1</b>	18.5%	<b>724.9</b>
Average concentrate grade (% Cu)	21.9	22.0	21.9	21.9	<b>21.8</b>	-0.3%	<b>21.9</b>
Production of metals in concentrates:							
Copper ('000 tonnes)	38.8	39.4	39.4	41.5	<b>45.8</b>	18.2%	<b>159.1</b>
Gold ('000 ounces)	42	50	77	117	<b>120</b>	187.6%	<b>285</b>
Silver ('000 ounces)	221	225	230	238	<b>247</b>	11.6%	<b>914</b>
Concentrate sold ('000 tonnes)	163.1	220.0	171.9	191.4	<b>184.9</b>	13.4%	<b>746.4</b>
Sales of metals in concentrates:							
Copper ('000 tonnes)	34.3	46.1	36.0	40.2	<b>38.5</b>	12.3%	<b>156.7</b>
Gold ('000 ounces)	31	51	55	111	<b>98</b>	215.9%	<b>248</b>
Silver ('000 ounces)	206	250	201	216	<b>200</b>	-2.9%	<b>873</b>
Metal recovery (%)							
Copper	79.5	79.7	80.9	84.8	<b>83.8</b>	5.4%	<b>81.4</b>
Gold	55.0	59.8	64.7	71.7	<b>70.1</b>	27.4%	<b>65.2</b>
Silver	54.6	58.4	62.8	67.1	<b>63.2</b>	15.7%	<b>60.9</b>

## Contact

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## Forward-looking statements

Certain statements made herein, including statements relating to matters that are not historical facts and statements of the Company's beliefs, intentions and expectations about developments, results and events which will or may occur in the future, constitute "forward-looking information" within the meaning of applicable Canadian securities legislation and "forward-looking statements" within the meaning of the "safe harbor" provisions of the United States *Private Securities Litigation Reform Act of 1995*. Forward-looking statements and information relate to future events or future performance, reflect current expectations or beliefs regarding future events and are typically identified by words such as "anticipate", "could", "should", "expect", "seek", "may", "intend", "likely", "plan", "estimate", "will", "believe" and similar expressions suggesting future outcomes or statements regarding an outlook. These include, but are not limited to, information regarding the timing and amount of production and potential production delays, statements in respect of the impacts of any delays on the Company's cash flows, liquidity, funding requirements and planning, statements regarding timing and status of underground development, capital and operating cost estimates, mill throughput, expected copper and gold mill head grades, anticipated business activities, planned expenditures, corporate strategies, timing of completion of the definitive estimate review and other statements that are not historical facts.

Forward-looking statements and information are made based upon certain assumptions and other important factors that, if untrue, could cause the actual results, performance or achievements of the Company to be materially different from future results, performance or achievements expressed or implied by such statements or information. There can be no assurance that such statements or information will prove to be accurate. Such statements and information are based on numerous assumptions regarding present and future business strategies, local and global economic conditions, and the environment in which the Company will operate in the future, including the price of copper, gold and silver and projected gold, copper and silver grades, anticipated capital and operating costs, anticipated future production and cash flows, and the status of the Company's relationship and interaction with the Government of Mongolia on the continued operation and development of Oyu Tolgoi and Oyu Tolgoi LLC internal governance.

Certain important factors that could cause actual results, performance or achievements to differ materially from those in the forward-looking statements and information include, among others, copper; gold and silver price volatility; discrepancies between actual and estimated production, mineral reserves and resources and metallurgical recoveries; development plans for processing resources; matters relating to proposed exploration or expansion; mining operational and development risks, including geotechnical risks and ground conditions; litigation risks; regulatory restrictions (including environmental regulatory restrictions and liability); Oyu Tolgoi LLC's ability to deliver a domestic power source for the Oyu Tolgoi project within the required contractual time frame; communications with local stakeholders and community relations; activities, actions or assessments, including tax assessments, by governmental authorities; events or circumstances (including strikes, blockages or similar events outside of the Company's control) that may affect the Company's ability to deliver its products in a timely manner; currency fluctuations; the speculative nature of mineral exploration; the global economic climate; dilution; share price volatility; competition; loss of key employees; cyber security incidents; additional funding requirements, including in respect of the development or construction of a long-term domestic power supply for the Oyu Tolgoi project; capital and operating costs, including with respect to the development of additional deposits and processing facilities; and defective title to mineral claims or property. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements and information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. All such forward-looking statements and information are based on certain assumptions and analyses made by the Company's management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believes are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking statements or information.

With respect to specific forward-looking information concerning the continued operation and development of Oyu Tolgoi, the Company has based its assumptions and analyses on certain factors which are inherently uncertain. Uncertainties and assumptions include, among others: the timing and cost of the construction and expansion of mining and processing facilities; the timing and availability of a long-term domestic power source (or the availability of financing for the Company to construct such a source) for Oyu Tolgoi; the ability to secure and draw down on the supplemental debt under the Oyu Tolgoi project financing facility and the availability of additional financing on terms reasonably acceptable to Oyu Tolgoi LLC, Rio Tinto and the Company to further develop Oyu Tolgoi; the impact of changes in, changes in interpretation to or changes in enforcement of, laws, regulations and government practices in Mongolia; the availability and cost of skilled labour and transportation; the obtaining of (and the terms and timing of obtaining) necessary environmental and other government approvals, consents and permits; delays, and the costs which would result from delays, in the development of the underground mine (which could significantly exceed the costs projected in the 2016 Oyu Tolgoi Feasibility Study and the 2016 Oyu Tolgoi Technical Report); projected copper, gold and silver prices and their market demand; and production estimates and the anticipated yearly production of copper, gold and silver at Oyu Tolgoi.

The cost, timing and complexities of mine construction and development are increased by the remote location of a property such as Oyu Tolgoi. It is common in mining operations and in the development or expansion of existing facilities to experience unexpected problems and delays during development, construction and mine start-up. Additionally, although Oyu Tolgoi has achieved commercial production, there is no assurance that future development activities will result in profitable mining operations.

Readers are cautioned not to place undue reliance on forward-looking information or statements. By their nature, forward-looking statements involve numerous assumptions, inherent risks and uncertainties, both general and specific, which contribute to the possibility that the predicted outcomes will not occur. Events or circumstances could cause the Company's actual results to differ materially from those estimated or projected and expressed in, or implied by, these forward-looking statements. Important factors that could cause actual results to differ from these forward-looking statements are included in the "Risk Factors" section in the Company's Annual Information Form dated as of March 13, 2019 in respect of the year ended December 31, 2018 (the "AIF"), as supplemented by the "Risks and Uncertainties" section in our Management's Discussion and Analysis of Financial Condition and Results of Operations for the year ended December 31, 2018 (the "MD&A").

Readers are further cautioned that the list of factors enumerated in the "Risk Factors" section of the AIF and in the MD&A that may affect future results is not exhaustive. When relying on the Company's forward-looking statements and information to make decisions with respect to the Company, investors and others should carefully consider the foregoing factors and other uncertainties and potential events.