



## **Titan Mining Discovers Near-Mine Open-Pit-able Mineralization at Empire State Mine, Including 15 Feet Grading 12.4% Zinc**

**Vancouver, B.C., November 21, 2019** – Titan Mining Corporation (TSX:TI) (“Titan” or the “Company”) is pleased to announce the results from surface drilling at its 100%-owned Empire State Mine (“ESM”) in New York State. The current drill program is focused on two recently-identified near-surface zinc targets (Figures 1 and 2). The Hoist House zone is interpreted as an extension of the large #2 mine, which accounted for approximately half of the tons mined historically at ESM, and the Turnpike zone as an extension of the historic #1 mine. To date, three holes have been completed at the Hoist House zone and drill testing of this zone continues. A second drill has begun initial testing of the Turnpike zone.

### **Key mineralized intervals from the Hoist House zone include:**

- **15 feet assaying 12.4% zinc**
- **15.5 feet assaying 8.0% zinc**
  - **Including 4.3 feet assaying 19.3% zinc**
- **70 feet assaying 2.2% zinc**
  - **Including 3.5 feet assaying 11.7% zinc**
- **56 feet assaying 2.0% zinc**
  - **Including 14.5 feet assaying 5.0% zinc**

Don Taylor, Chief Executive Officer, commented, “We have identified several near-surface targets at the mine site, and in the district, which we believe present an opportunity for ESM to add low-cost near-term production. The zones have good continuity along strike as well as at depth and contain higher grade zinc mineralization interbedded with lower grade lenses that can be accessed through open pit mining. The current drill program will allow us to evaluate the zones quickly for potential mining. We are initially focusing on targets near the existing infrastructure and, if economic, these new zones could provide incremental mill feed to help fill existing capacity at ESM. Existing permits allow for open pit mining and we will work with regulators to determine if any additional studies are required.”

Scott Burkett, Vice President, Exploration, stated, “We have been very pleased with the continuity and size of the mineralized zones as indicated by surface drilling. The mineralogy and coarse-grained sulphides are similar to the #2D zone currently being developed for underground mining and, as such, we anticipate that the processing method and recovery rates will be similar. Metallurgical samples have been collected and testing has begun onsite.”

The Hoist House zone is located one mile south of the ESM #4 mine and milling complex and is interpreted to be the unmined extension of the historic #2 zone. Historic drilling indicates that the Hoist House zone extends to a depth of at least 300 feet over a strike length of 600 feet. It consists of two mineralized horizons, the hanging wall (“HW”) and footwall (“FW”) horizons, with a range of thickness of 10 to 20 feet and 30 to 70 feet, respectively (Figure 3).

A second zone currently being drill tested is the Turnpike zone, which was identified based on the interpreted geology. The Turnpike zone is located 600 feet to the southeast of the Hoist House zone and is interpreted to be the unmined extension of the historic #1 zone. Historic mapping identified outcropping mineralization with a strike length of 450 feet, and historic drilling indicates that the zone is between 20 and 50 feet thick.

SX19-2475 is an inclined hole drilled from surface, targeting the Hoist House zone. The drill hole intercepted the HW and FW mineralized horizons. It confirmed the presence of near-surface mineralization and revealed robust lower-grade mineralization in the FW horizon. Significant mineralized intervals were:

- **11 feet assaying 6.4% zinc (HW)**
- **56 feet assaying 2.0% zinc (FW)**
  - **Including 14.5 feet assaying 5.0% zinc**

SX19-2476 is an inclined hole drilled from surface on the same section as SX19-2475. The drill hole targeted HW and FW mineralization down dip from SX19-2475. The drill hole intercepted the HW and FW mineralized horizons, demonstrating the down-dip continuity of mineralization and confirming the presence of the FW horizon. Notable mineralized intervals were:

- **15.5 feet assaying 8.0% zinc (HW)**
  - **Including 4.3 feet assaying 19.3% zinc**
- **35.6 feet assaying 3.1% zinc (FW)**

SX19-2477 is an inclined hole drilled from surface. The hole is an infill hole which was drilled between SX19-2475 and SX19-2476 and completed the drill fan linking the HW and FW mineralized horizons together down dip. Noteworthy mineralized intervals were:

- **15 feet assaying 12.4% zinc (HW)**
- **70 feet assaying 2.2% zinc (FW)**
  - **Including 3.5 feet assaying 11.7% zinc**

For a full list of the Hoist House mineralized intervals from these holes, refer to Table 1.

**Figure 1 – Location of Near-Surface Drill Targets at ESM**

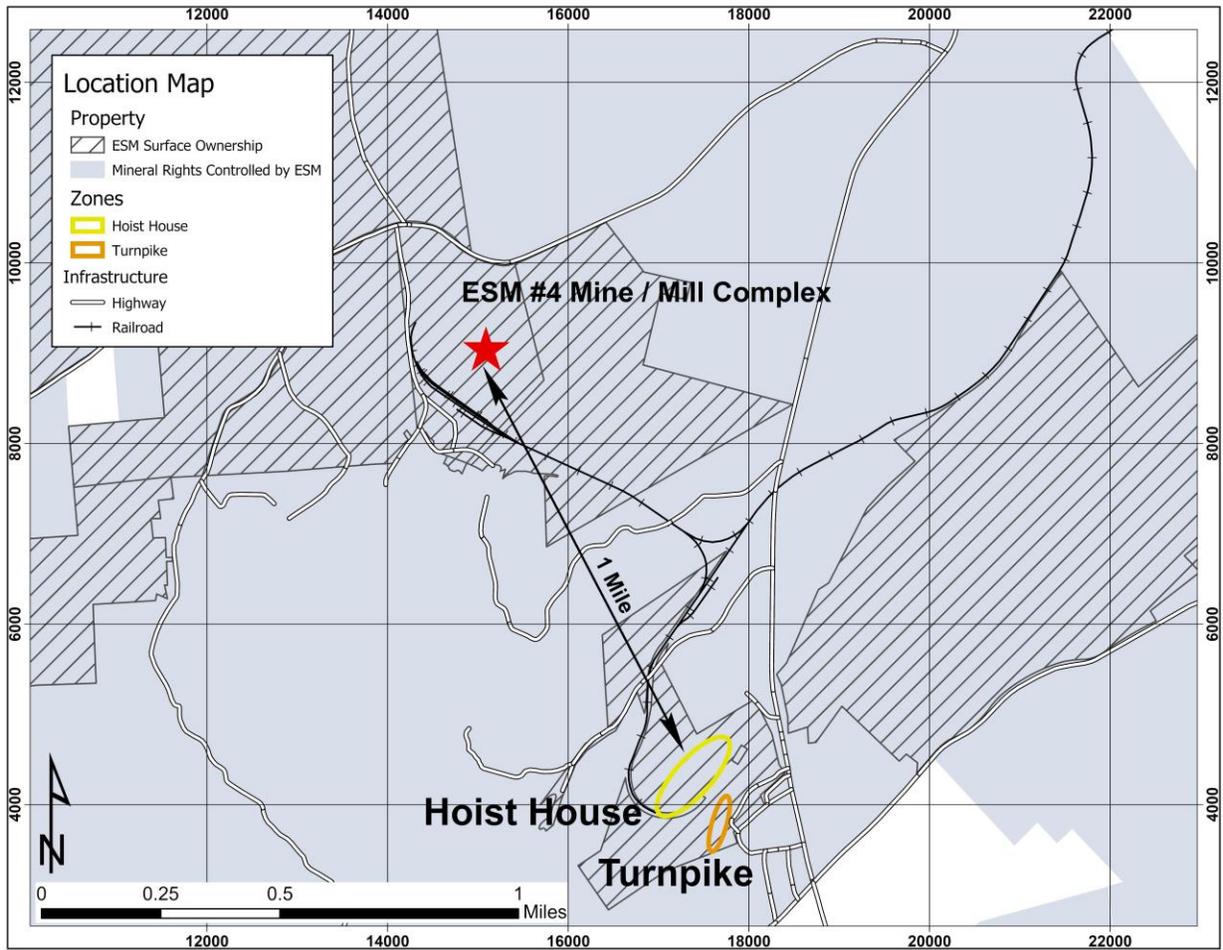
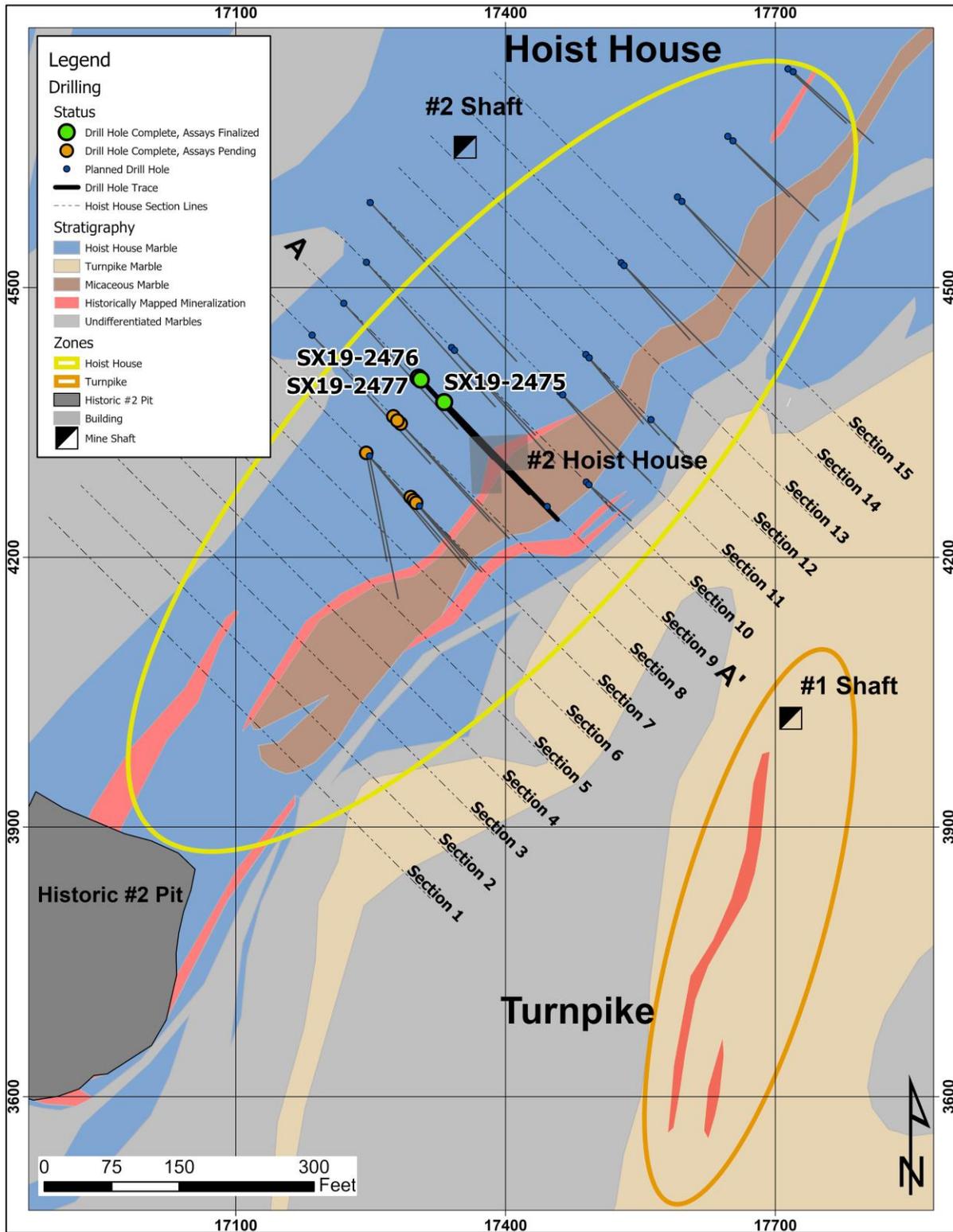
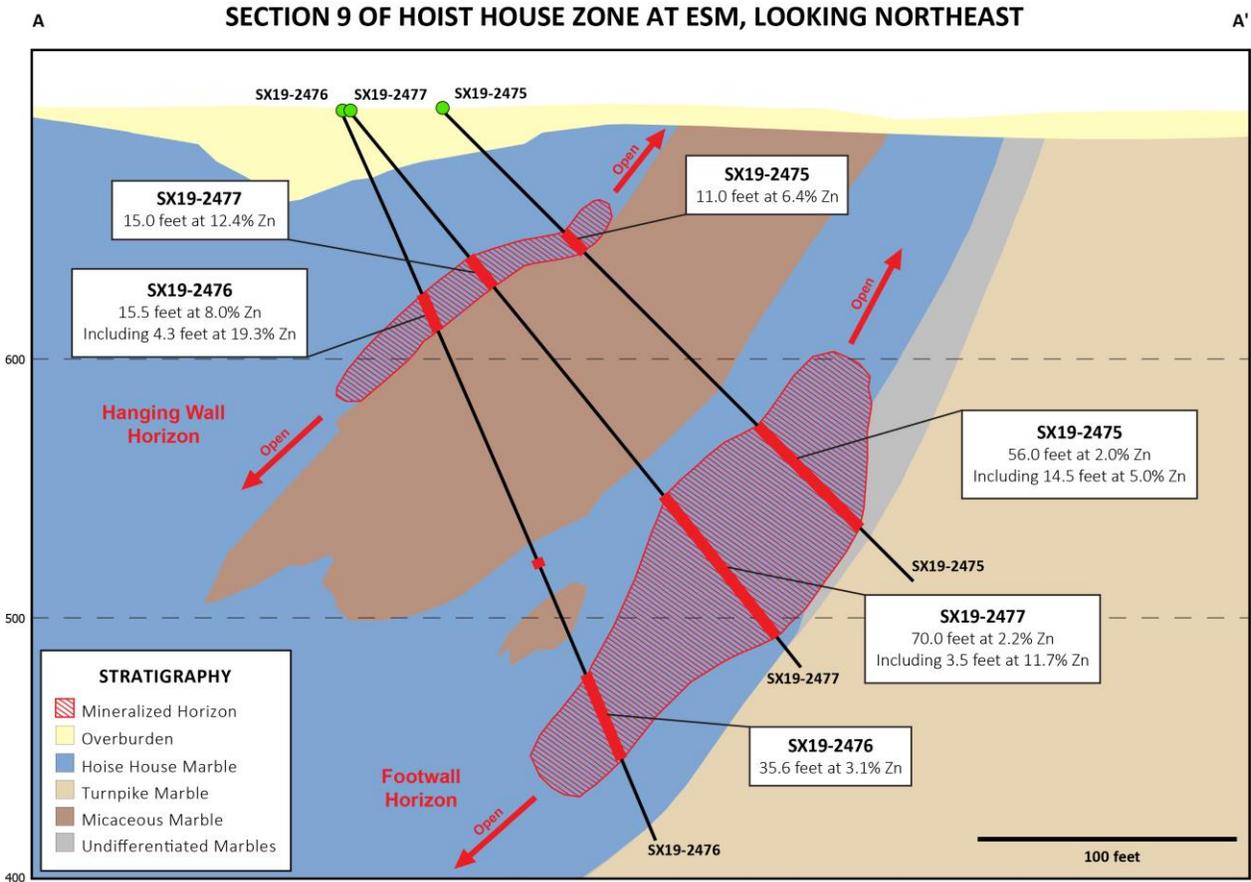


Figure 2 – Plan View of Hoist House and Turnpike Zones Showing Drill Hole Locations



**Figure 3 – Cross Section of Hoist House Zone Looking Northeast and Showing Drill Holes and Selected Mineralized Intervals**



**Table 1 – Exploration Drill Results from Hoist House Zone at ESM**

<i>Drill hole</i>	<i>From (feet)</i>	<i>To (feet)</i>	<i>Interval (feet)<sup>1</sup></i>	<i>From (meters)</i>	<i>To (meters)</i>	<i>Interval (meters)<sup>1</sup></i>	<i>Zn%</i>	<i>Horizon</i>
SX19-2475	66.5	77.5	11.0	20.3	23.6	3.4	6.4	HW
SX19-2475	172.0	228.0	56.0	52.4	69.5	17.1	2.0	FW
<b>Including</b>	<b>201.5</b>	<b>216.0</b>	<b>14.5</b>	<b>61.4</b>	<b>65.8</b>	<b>4.4</b>	<b>5.0</b>	<b>FW</b>
SX19-2476	77.5	93.0	15.5	23.6	28.3	4.7	8.0	HW
<b>Including</b>	<b>83.7</b>	<b>88.0</b>	<b>4.3</b>	<b>25.5</b>	<b>26.8</b>	<b>1.3</b>	<b>19.3</b>	<b>HW</b>
SX19-2476	237.4	273.0	35.6	72.4	83.2	10.8	3.1	FW
SX19-2477	73.3	88.3	15.0	22.3	26.9	4.6	12.4	HW
SX19-2477	192.0	262.0	70.0	58.5	79.9	21.3	2.2	FW
<b>Including</b>	<b>201.5</b>	<b>205.0</b>	<b>3.5</b>	<b>61.4</b>	<b>62.5</b>	<b>1.1</b>	<b>11.7</b>	<b>FW</b>

<sup>1</sup> Based on observed geologic contacts, data suggest drill interval is within 10% of true thickness, however, based on the drill density it is not possible to determine the true width of the zone(s) and no representation is made here regarding the true width.

### **Qualified Person**

The results of the Titan drilling have been reviewed, verified and compiled by Donald R. Taylor, MSc., PG, Chief Executive Officer of Titan, a qualified person as defined by National Instrument 43-101 (NI 43-101). Mr. Taylor has 30 years of mineral exploration and mining experience, and is a Registered Professional Geologist through the SME (registered member #4029597).

### **Assays and Quality Assurance/Quality Control**

To ensure reliable sample results, the Company has a rigorous QA/QC program in place that monitors the chain-of-custody of samples and includes the insertion of blanks and certified reference standards at statistically derived intervals within each batch of samples. Core is photographed and split in half with one-half retained in a secured facility for verification purposes.

Sample preparation (crushing and pulverizing) has been performed at ALS Geochemistry, an ISO/IEC accredited lab located in Sudbury, Ontario, Canada. ALS Minerals Laboratories prepares a pulp of all samples and sends the pulps to their analytical laboratory in Vancouver, B.C., Canada, for analysis. ALS analyzes the pulp sample by an aqua regia digestion (ME-ICP41 for 35 elements) with an ICP – AES finish including Cu (copper), Pb (lead), and Zn (zinc). All samples in which Cu (copper), Pb (lead), or Zn (zinc) are greater than 10,000 ppm are re-run using aqua regia digestion (Cu-OG46; Pb-OG46; and Zn-OG46) with the elements reported in percentage (%). Silver values are determined by an aqua regia digestion with an ICP-AES finish (ME-ICP41) with all samples with silver values greater than 100 ppm repeated using an aqua regia digestion overlimit method (Ag-OG46) calibrated for higher levels of silver contained. Gold values are determined by a 30 g fire assay with an ICP-AES finish (Au-ICP21).

### **About Titan Mining Corporation**

Titan is an Augusta Group company which produces zinc concentrate at its 100%-owned Empire State Mine (“ESM”) located in New York State. ESM is a group of zinc mines which started production in the early 1900s. Titan is built for growth, focused on value and committed to excellence. The company’s shares are listed under the symbol “TI” on the Toronto Stock

Exchange. For more information on the Company, please visit our website at [www.titanminingcorp.com](http://www.titanminingcorp.com).

### **Contact**

*For further information, please contact:*

**Jacqueline Allison – Vice President, Investor Relations and Strategic Analysis**

Telephone: 416-366-5678 Ext. 205 | Email: [jallison@titanminingcorp.com](mailto:jallison@titanminingcorp.com)

### **Cautionary Note Regarding Forward-Looking Information**

This press release contains certain forward-looking statements. Words such as “expects”, “anticipates” and “intends” or similar expressions are intended to identify forward-looking statements. Forward-looking information is necessarily based on a number of opinions, assumptions and estimates that, while considered reasonable by the Company as of the date of this press release, are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause the actual results, performance of current and additional drilling, or timing of events to be materially different from those expressed or implied by such forward-looking information, including but not limited to the factors described in greater detail in the Company’s Management’s Discussion and Analysis and Annual Information Form for the year ended December 31, 2018, available at [www.sedar.com](http://www.sedar.com). No securities regulatory authority has expressed an opinion about the securities described herein and it is an offence to claim otherwise. Titan undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law.