

CAUTIONARY NOTES

Forward-Looking Information:

This presentation contains "forward-looking information" within the meaning of Canadian securities laws. In some cases, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "targets", "expects", "is expected", "is positioned" or "assumes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would" or "will" occur or be achieved. In addition, any statements that refer to expectations, predictions, indications, projections or other characterizations of future events or circumstances contain forward-looking information. Statements containing forward-looking information are not historical facts, but instead represent management's expectations, estimates and projections regarding future events.

Forward-looking information includes, among other things, statements relating to: estimated C1 cash costs and AISC; future financial or operating performance and condition of Titan Mining Corporation (the "Company"), including its ability to continue as a going concern, and its business, operations and properties; the Company's ability to implement its growth strategy to maximize the value of its property holdings; the Company's planned exploration and development activities at Empire State Mine; costs, timing and results of future exploration and drilling; forecasted trends in the global zinc market, including in respect of the price of zinc; capital and operating cost estimates; economic analyses (including cash flow projections) derived from the Company's most recent technical report; the adequacy of the Company's financial resources; the estimation of mineral resources; the realization of mineral resource estimates; the probability of inferred mineral resources being converted into measured or indicated mineral resources; the production schedule for the Empire State Mines ("ESM") #4 mine; production estimates for ESM #4 mine; any updates to the mine plan for ESM #4 mine and continuation of the drill program at the Empire State Mine; the Company's expectations with respect to the payment of dividends; the Company's ability to make scheduled payments of the principal, or to pay interest on or refinance its indebtedness; .

Forward-looking information is based on opinions, assumptions and estimates made by the Company in light of its experience and perception of historical trends, current conditions and expected future developments, as well as other factors that the Company believes are appropriate and reasonable in the circumstances, as of the date of this presentation, including, without limitation, assumptions about: equity and debt capital markets; the ability to raise any necessary additional capital on reasonable terms; future prices of zinc and other metals; the timing and results of exploration and drilling programs; the likelihood of discovering new mineral resources in the Balmat-Edwards district; the accuracy in the Company's most recent technical report of the mine production schedule; the estimated time of completion of drift rehabilitation and refurbishment of ESM #4 mine; the production estimates; the geology and geophysical data of ESM; metallurgical forecasts; the economic analysis, capital and operating cost estimates; the accuracy of any mineral resource estimates; the successful integration of ESM into the Company's business; availability of labour; the accuracy of drill sample results at ESM; future currency exchange rates and interest rates; operating conditions being favourable; political and regulatory stability; the receipt of governmental and third party approvals, licenses and permits on favourable terms; obtaining required renewals for existing approvals, licenses and permits and obtaining all other required approvals, licenses and permits on favourable terms; sustained labour stability; stability in financial and capital goods markets; availability of equipment and the condition of existing equipment being as described in the Company's most recent technical report;

the absence of any long-term liabilities created by the mining activity in the Balmat region beyond those described in the Company's most recent technical report; the accuracy of the Company's accounting estimates and judgments; the impact of adoption of new accounting policies; the Company's ability to satisfy the terms and conditions of its indebtedness; and the timing of a revised mine plan for ESM. There can be no assurance that such estimates and assumptions will prove to be correct. In addition, if any of the assumptions or estimates made by management prove to be incorrect, actual results and developments are likely to differ, and may differ materially, from those expressed or implied by the forward-looking information contained in this presentation. Accordingly, readers of this presentation are cautioned not to place undue reliance on such information.

Forward-looking information is necessarily based on a number of the opinions, assumptions and estimates that, while considered reasonable by the Company as of the date such statements are made, are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause the actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information, including but not limited to the following factors described in greater detail under the heading "Risks Factors" in the Company's most recent Annual Information Form available at www.sedar.com: limited operating history; dependence on ESM; limited supplies, supply chain disruptions, and inflation; requirements for additional capital in the future; financial leverage and restrictive covenants restricting our current and future operations; risks related to ramping up mining activities; inherent risks of mining; estimates of mineral resources; production decisions based on mineral resources; uncertainty in relation to inferred mineral resources; fluctuations in demand for, and prices of, zinc; production projections and cost estimates for ESM #4 mine may prove to be inaccurate; profitability of the Company; ability to attract and retain qualified management; title; competition; governmental regulations; market events and general economic conditions; environmental laws and regulations; threat of legal proceedings; rights, concessions and permits; social and environmental activism; land reclamation requirements; Tailings Management Facility and environmental reclamation; insurance; undisclosed liabilities; health and safety; dependence on information technology systems; fixed zinc pricing arrangements; conflicts of interest; risks inherent in the Company's indebtedness; risks inherent in acquisitions; integration of the mine assets; labour and employment retention/relations; anti-corruption and bribery regulation, including ESTMA reporting; infrastructure; enforceability of judgments; global outbreaks and coronavirus; absence of a market for the common shares; fluctuations in price of the common shares; loss of entire investment; significant ownership by Richard W. Warke; future sales of common shares by Richard W. Warke and other directors and officers of the Company; use of proceeds; payment of dividends; currency exchange rate risks; pro forma financial information; public company status; financial reporting and other public company requirements; dilution; and securities analysts' research or reports could impact the price of the common shares. These factors and assumptions are not intended to represent a complete list of the factors and assumptions that could affect the Company. These factors and assumptions, however, should be considered carefully. Currency is in US dollars and tonnage is in short tons unless otherwise indicated. Other than as required by securities laws, Titan assumes no responsibility for updating the forward-looking information in this presentation.

Scientific and Technical Information:

The scientific and technical information in this presentation has been approved by Donald R. Taylor, MSc., PG, President and CEO of the Company who is a "Qualified Person" as defined in National

Instrument 43-101 Standards of Disclosure for Mineral Projects. Mr. Taylor has more than 25 years of mineral exploration and mining experience and is a Registered Professional Geologist through the SME (registered member #4029597).



INVESTMENT HIGHLIGHTS

Best-in-Class Leadership

Demonstrated track record in exploration and development. Executive Chair, Richard Warke, and the Augusta Group have generated extraordinary shareholder value

Award-winning. CEO Donald Taylor is the recipient of PDAC's 2018 Thayer Lindsley Award for the 2014 discovery of the world-class Taylor lead-zinc-silver deposit in Arizona

Strong board. Experienced, well-rounded and widely-recognized directors

Leverage to Zinc Price

Exposure to Increasing Zinc Prices.Located in prolific mining district

Significant Discovery Potential.

Targeting new discoveries in the 15-30Mt range at ESM, grading 10% zinc

Focus on Optimizing Cash Flow

ESM mine plan includes higher-grade New Fold zone in ESM #4 mine and #2D zone as well as recent results from Turnpike and Hoist House zones.

Focus on development and exploration.

Infill drilling at #4 mine, drilling of near-mine open-pit mineralization as well as district exploration



augustagroup

TRACK RECORD IN EXPLORATION AND DEVELOPMENT

CURRENT AUGUSTA COMPANY RETURNS

PAST AUGUSTA COMPANY RETURNS

SOLARIS RESOURCES

TSX:SLS; OTCQB:SLSSF \$1.8B Market Cap



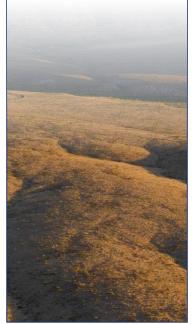


TSX:TI \$86.1M Market Cap





TSX:G; OTCQB:AUGG \$84.6M Market Cap





Sold for \$1.6B in 2011

(12,960% return)



Sold for \$667M in 2014

(3,300% return)



Sold for \$2.1B in 2018

(6,100% return)



Co-Founded in 2017; \$2.3B Market Cap

(1,300% return)







Note: Market cap data as at December 31, 2021. The results for Ventana Gold Corp., Augusta Resource Corp., Equinox Gold. and Arizona Mining Inc. are independent of the results of Titan Mining Corp. and are no guarantee of the future performance. Undue reliance should not be placed thereon when considering an investment in Titan Mining Corp.

OVERVIEW

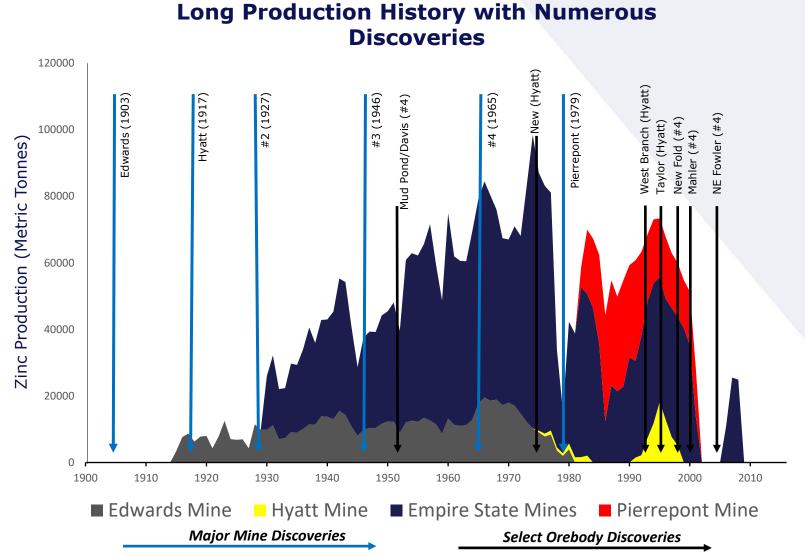
- ▲ Focus on exploration and development; driven by best-in-class leadership
- **▲** Empire State Mine (ESM), NY State
 - 100%-owned zinc producer in historic mining district
 - 2022 production forecasted at 64M-68M payable lbs at AISC¹ of US\$0.98/lb-US\$1.03/lb
 - In the process of developing three near-mine open-pit resources
- **▲** Strong balance sheet and +35% Increase in Production Forecast
- ▲ Part of the Augusta Group strong track record in exploration and development
- ▲ Extended credit facility maturity dates and three consecutive special dividend payments

Toronto Stock Exchange Symbol	TI
Shares Outstanding (as 04/01/2022)	139 M
Fully Diluted Shares Outstanding (as 04/01/2022)	170 M
Market Capitalization (as 04/01/2022)	C\$90 M

1. AISC is a non-GAAP measure. See the Company's most recent MD&A for discussion of non-GAAP measures.



HISTORY OF EXPLORATION SUCCESS | Potential for Additional Discoveries



Many discoveries made during a century of mining operations

▲ Minimal exploration during 2000-2010 period

 District remains highly prospective – refocus on exploration concurrent with production

STRATEGY

BEST-IN-CLASS LEADERSHIP

- ▲ Leverage experienced management and directors
- Remain aligned with shareholders management/directors own 58% of Titan shares
- **▲** Attract and retain top talent

PRUDENT GROWTH

- ▲ Maximize NAV per share through risk-adjusted returns
- Advance pipeline of low-risk, high-return organic projects
- Realize external opportunities to enhance our North American portfolio
- ▲ Maintain a conservative capital structure

Leaders
in building
long-term
value

OPERATIONAL EXCELLENCE

- Deliver on expectations
- ▲ Innovate to capture efficiencies and lower costs
- ▲ Operate to high health, safety and environmental standards
- ▲ Invest in our workforce and support skill development for advancement and growth

SUSTAINABLE DEVELOPMENT

- Build relationships based on respect, trust and transparency
- ▲ Mitigate the impacts of our actions to ensure safety and environmental well-being
- ▲ Jointly create long-term positive legacies with our host communities

MISSION:

To deliver extraordinary shareholder value through exploration, development and operational excellence

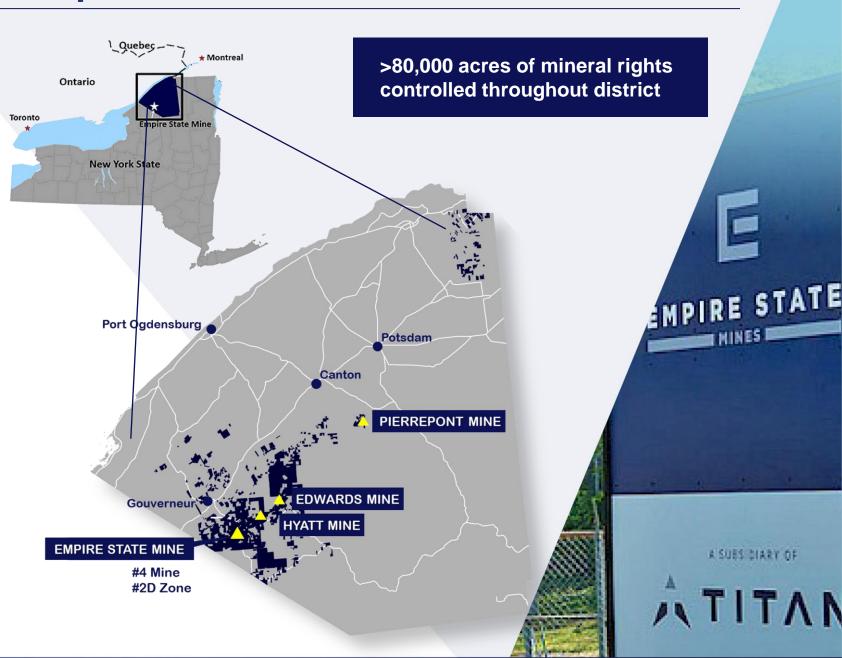


EMPIRE STATE MINE | Focused on Exploration in a 100-Year-Old Zinc District

- **▲** Producing zinc concentrate in northern New York
- ▲ Long-term zinc concentrate offtake agreement with Glencore transportation within North America
 - 60% of Q1/22 forecasted zinc production fixed at US\$1.50/lb
- ▲ Historic production 44M tons milled at average grade of 9.4% zinc from 7 mines within 30-mile radius of mill



Shipment of zinc concentrate leaving site





EMPIRE STATE MINE | 2022 Production and Cost Guidance

- ▲ 2022 production forecasted at 64-68 million payable pounds at AISC¹ of US\$0.98-1.03/lb
- ▲ Steady and marked improvement in both safety and production
- ▲ Anticipated incremental production from the #2 mine open pits to come on-line in 2022
- **▲** Strong balance sheet

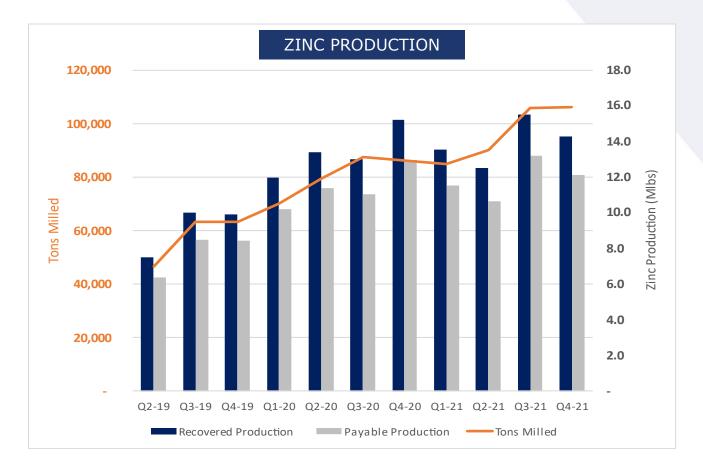
35 - 43% Production Increase from 2021

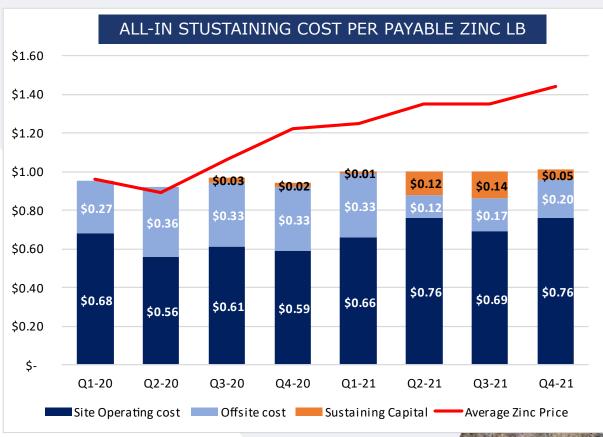
ESM Production and Cost Guidance				
	Units	2022		
Payable Production				
Zinc	Mlbs	64 - 68		
Cost				
C1 cash cost ¹	\$/lb	0.94 - 0.98		
AISC ¹	\$/lb	0.98 - 1.03		
Capital				
Sustaining	\$ millions	3		
Expansionary	\$ millions	2 - 3		
Exploration				
ESM	\$ millions	2.5 - 3		

1.C1 cash cost per payable pound sold is a non-GAAP measure. All-in sustaining cost per payable pound sold ("AISC") is calculated as C1 cash cost plus sustaining capital to maintain the mine and mill per pound sold. All-In Sustaining Cost per pound of zinc payable produced does not include depreciation, depletion, and amortization, reclamation and exploration expenses. See the Company's most recent MD&A for discussion of non-GAAP measures.



EMPIRE STATE MINE | Improving Performance and Trajectory







^{*} AISC is a non-GAAP measure. See Titan's most recent MD&A for a discussion on non-GAAP measures.

EMPIRE STATE MINE | Mineral Resources

Underground as at October 1, 2020

Category	Tons (000's US short tons)	Zn (%)	Contained Pounds (M Lbs)
Measured	190	13.56	51.6
Indicated	1,524	11.49	350.3
Measured + Indicated	1,714	11.72	401.9
Inferred	6,551	11.11	1,455.6

Notes: Mineral Resources are not Mineral Resources and do not have demonstrated economic viability. There is no certainty that any part of the Mineral Resources estimated will be converted into a Mineral Resources stated as in-situ grade at a Zinc price of \$1.07/lb, with an assumed zinc recovery of 96.3% Resources are reported using a 5.3% Zinc cut-off grade, based on actual break-even mining, processing, and G&A costs from the ESM operation. Numbers in the table have been rounded to reflect the accuracy or the estimate and may not sum due to rounding. Source: SRK 2020.

Open Pit as at October 1, 2020

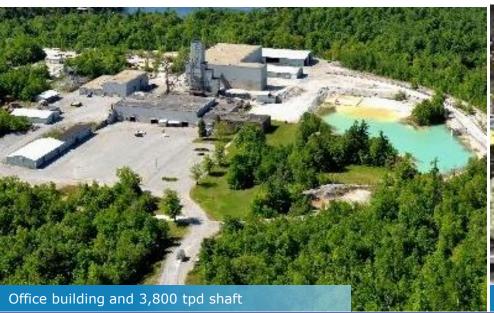
Category	Tons (000's US short tons)	Zn (%)	Contained Pounds (M Lbs)
Measured	105	3.34	7.0
Indicated	595	3.09	36.8
Measured + Indicated	701	3.13	43.8
Inferred	217	3.37	14.6

Note: Mineral Resources are not Mineral Resources are not Mineral Resources and do not have demonstrated economic viability. There is no certainty that any part of the Mineral Resources estimated will be converted into a Mineral Reserves estimate. Resources stated as internal to an optimized pit shell, above a cut-off grade of 1.57% Zn. Cut-off is based on break-even economics at a Zinc price of \$1.07/lb, with an assumed zinc recovery of 94%, and actual processing, and G&A costs from the ESM operation. No mining costs were considered in the calculation of this COG, as the pit optimization incorporates the mining costs to develop the shape for reporting. Numbers in the table have been rounded to reflect the accuracy or the estimate and may not sum due to rounding. Source: SRK 2020.



EMPIRE STATE MINE | Near-Mine and District Exploration

- **▲** Production supported by current mineral resources with potential for near-mine resource additions
 - Current source is ESM #4 mine multiple zones in production; Mahler, New Fold and Mud Pond
 - Mining has recommenced on the #2D zone
 - Surface drilling has discovered Little York, new high-grade zinc mineralization zone between Mud Pond and the historically mined Upper Fowler zone
 - Future discovery potential through additional near-mine exploration
- ▲ Targeting large, high-grade deposits (15 to 30+ Mt at 10% zinc) new ideas and modern approach to exploration led by award-winning team

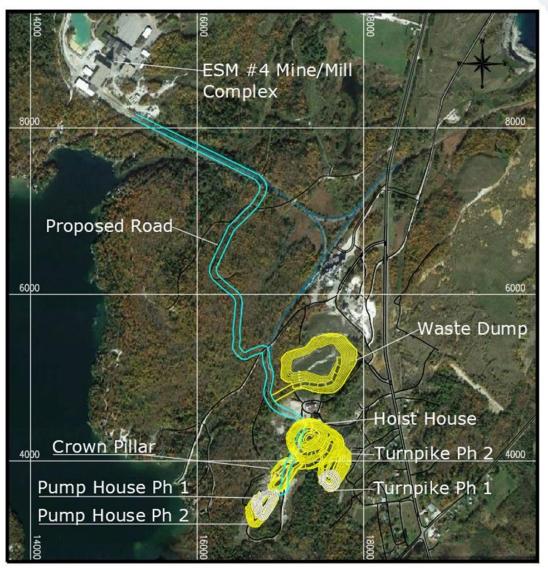






EMPIRE STATE MINE | Potential Near-Term Incremental Mill Feed

HOIST HOUSE ZONE AT ESM, LOOKING NORTHEAST

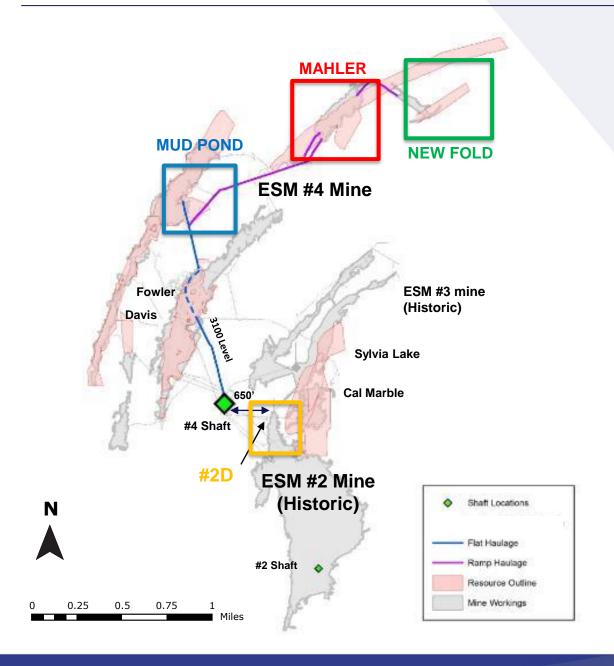


HOIST HOUSE, PUMPHOUSE AND TURNPIKE

- ▲ Shallow zones of near-mine open-pit mineralization discovered in Nov 2019
- **▲** Potential to add low-cost production
- ▲ Achieves Titan's strategy of providing feed to ESM mill with over 3,000 tpd of excess capacity in an effort to dramatically increase production and lower costs
- ▲ Future discovery potential through additional near-mine exploration
- **▲** Production anticipated in 2022



Excellence in Exploration EMPIRE STATE MINE |



Underground Drilling

- **Utilizing Company-owned and operated** underground drills (<\$20/ft)
- **▲** Delineation of additional mineralization in Mahler, Mud Pond and New Fold
- **▲** Data used to refine current mine plan in preparation for development in 2022 and beyond

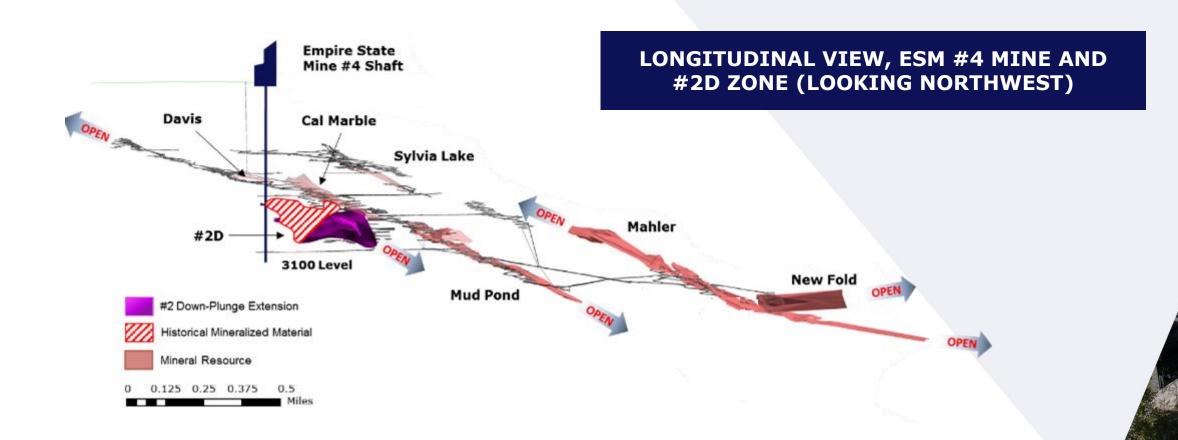
For additional information on the Company's Empire State Mine, refer to the Technical Report entitled, "Empire State Mines 2021 NI 43-101 Technical Report" with an effective date of February 24, 2021 and filed on Titan's SEDAR profile.



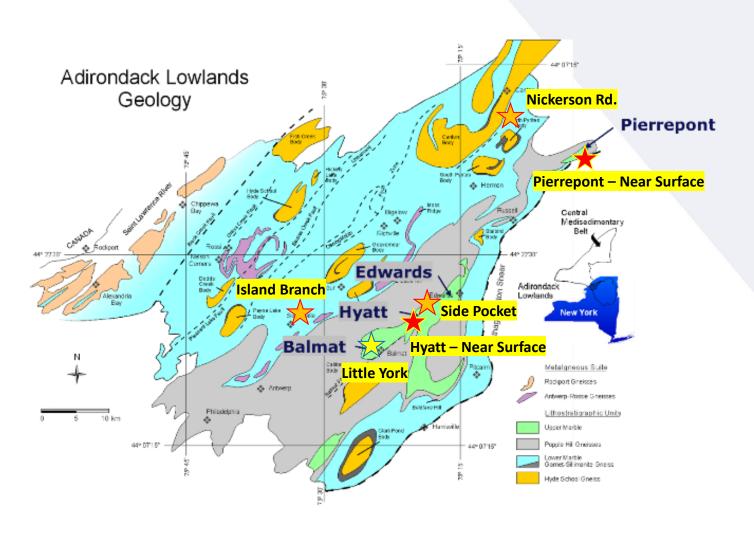
EMPIRE STATE MINE | Resource Expansion Potential at #4 and #2D

▲ #4 mine – mineralized zones generally plunge to northeast; potential to extend zones up and down-plunge

▲ #2D zone – More than 2,000ft of strike length and open down-plunge and laterally; connected by historic infrastructure on 2500 level to the #4 shaft



EMPIRE STATE MINE | District Exploration – 2022 Plan



Surface Targets: Little York, Pierrepoint, Outlet

★ Little York new discovery-(11ft @ 18% Zn¹)

District Targets:

Nickerson Rd – marbles with Zn occurrence

Side Pocket – Upper marble stratigraphy

along Balmat-Edwards trend

Island Branch – Lower Marble with magnetic low suggesting large sync form structure like Balmat

Multiple untested geophysical targets

^{1.} See the Company's news release titled "Titan Discovers New Zone of High-Grade Mineralization, Sets Production Guidance and Announces Inaugural Dividend" dated July 15, 2021



OUR APPROACH TO SUSTAINABILITY

GUIDING APPROACH

- ▲ Our employees are governed by a commitment to integrity, trust, community involvement as well as environment and social stewardship
- ▲ Our projects are developed with the goal of delivering long-term mutual economic benefits for employees, communities, local governments and shareholders
- ▲ We strive to minimize the environmental, social and safety impacts of our activities through innovation and the use of technology
- ▲ A key measure of a successful project is defined by direct engagement and transparent discussions by our company with the surrounding communities which we impact

INTEGRITY AND TRUST

- ▲ We listen, communicate and respond to community stakeholders in an open, respectful and timely manner
- ▲ We build and reinforce our relationships through transparency
- ▲ We back up our commitments with action
- ▲ We comply with both the letter and spirit of laws, regulations and permits

COMMUNITY INVOLVEMENT

- ▲ We promote local economic development by hiring and buying locally
- ▲ We partner and invest in workforce training so workers have the skills for future advancement and growth
- We use our projects as a catalyst to expand economic development and community investment for the benefit of local residents, community organizations and local governments

Committed
to localization
and building
partnerships that
deliver long-term
mutual benefits

ENVIRONMENTAL AND SOCIAL STEWARDSHIP

- ▲ We mitigate the impacts of our actions to ensure the safety and environmental, well-being of the areas in which we operate
- ▲ We work jointly with communities to create positive, long-term legacies that benefit future generations
- We carefully manage the natural resources of our projects, and minimize our environmental footprint through sound business decisions



THE RIGHT PEOPLE | Best-in-Class Leadership



Richard Warke | Executive Chairman

▲ Consistent record of creating shareholder value at Augusta Group



Donald Taylor | CEO

- ▲ 25+ years of mineral exploration experience
- ▲ Discovered world-class Taylor sulphide deposit winner of PDAC's 2018 Thayer Lindsley Award



Michael McClelland | CFO

- ▲ 15 years' experience with global mining companies
- ▲ Former CFO of Bisha Mining Share Company, a Nevsun Resources subsidiary



Purni Parikh | Senior VP, Corporate Affairs

▲ 25+ years of public company experience in the mining sector; Arizona Mining, Augusta Resources and Ventana Gold



Tom Ladner | VP, Legal

- ▲ Advised on multiple M&A transactions valued >\$1B
- ▲ Advised on 25+ public market financings raising >\$750M



