TITAN | TSX: TI

STREGHTENING THE U.S DOMESTIC SUPPLY OF CRITICAL MATERIALS

October 2024

BUILT FOR GROWTH

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 and graphite market, including in respect of the price of such commodities; 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 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.sedarplus.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.

Also refer to the Appendix relating to the Scientific and Technical Information and Assays and Quality Assurance/Quality Control information in this presentation.

augustagroup | TRACK RECORD OF VALUE CREATION

CURRENT AUGUSTA COMPANY RETURNS

SOLARIS RESOURCES

TSX: SLS
OTCQB: SLSSF

$513M
Market Cap

TITAN

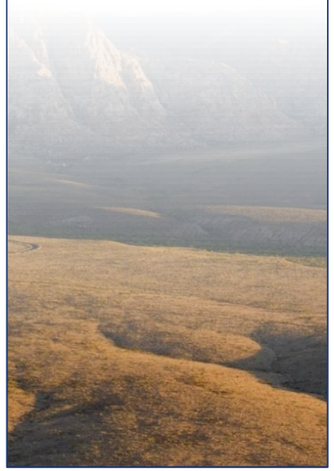
TSX: TI

$40M
Market Cap

augusta GOLD CORP

TSX: G
OTCQB: AUGG

$80M
Market Cap

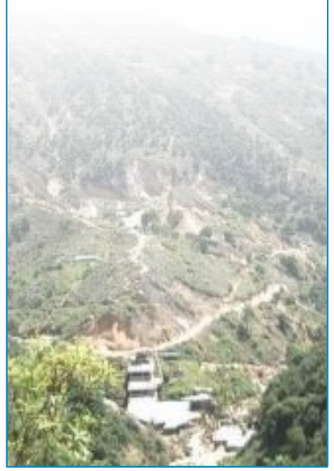


PAST AUGUSTA COMPANY RETURNS

VENTANA GOLD CORP.

12,960%
return

SOLD for $1.6B
in 2011



AUGUSTA RESOURCE CORPORATION

3,300%
return

SOLD for $667M
in 2014

ARIZONA MINING

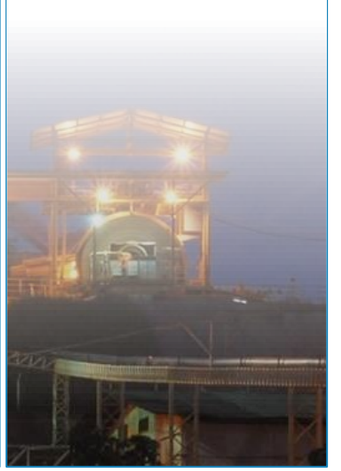
6,100%
return

SOLD for $2.1B
in 2018

EQUINOX GOLD

1,000%
return

$1.6B Market Cap
Co-Founded in 2017



Note: Market cap data as of October 25th, 2024. 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.

Best-in-Class Leadership

Richard Warke | Executive Chairman

Consistent record of creating shareholder value at Augusta Group, with more than 35 years' experience in the international resource sector.

Donald Taylor | CEO

30+ years of mineral exploration experience, Winner of 2018 Thayer Lindsley Award for Taylor discovery.

Rita Adiani | President

18 years of experience in the mining industry and global capital markets, including energy transition. Has been involved in raising over $10 Billion in public equities.

Speaker John Boehner | Director

Served as the 53rd Speaker of the US House of Representatives from Ohio's 8th congressional district.

Governor George Pataki | Director

Served three terms as the 53rd Governor of the State of NY; Co-Founder and Chairman of the Pataki-Cahill Group.

William Mulrow | Director

Senior Advisor at the Blackstone Group, an alternative asset manager, various roles at companies like Citigroup, Paladin Capital, GAMCO, Rothschild Inc. and others.

Len Boggio | Director

Corporate Director and former partner of PwC where he served for more than 30 years, he was Leader of the B.C. Mining Group of PwC.

CAPITAL STRUCTURE

- **Optimizing cash flow**
- **Trading at a significant discount to most small - intermediate producers**
- **Closely held by management and insiders**
- **Commitment to integrity and trust, community involvement as well as environmental stewardship**

Delivering extraordinary shareholder value through exploration, development and operational excellence

Toronto Stock Exchange Symbol	**TI**
Cash Position	**US$5.8 M**
Shares Outstanding	**136 M**
Fully Diluted Shares Outstanding (1)	**160 M**
Market Capitalization(2)	**C$40 million**

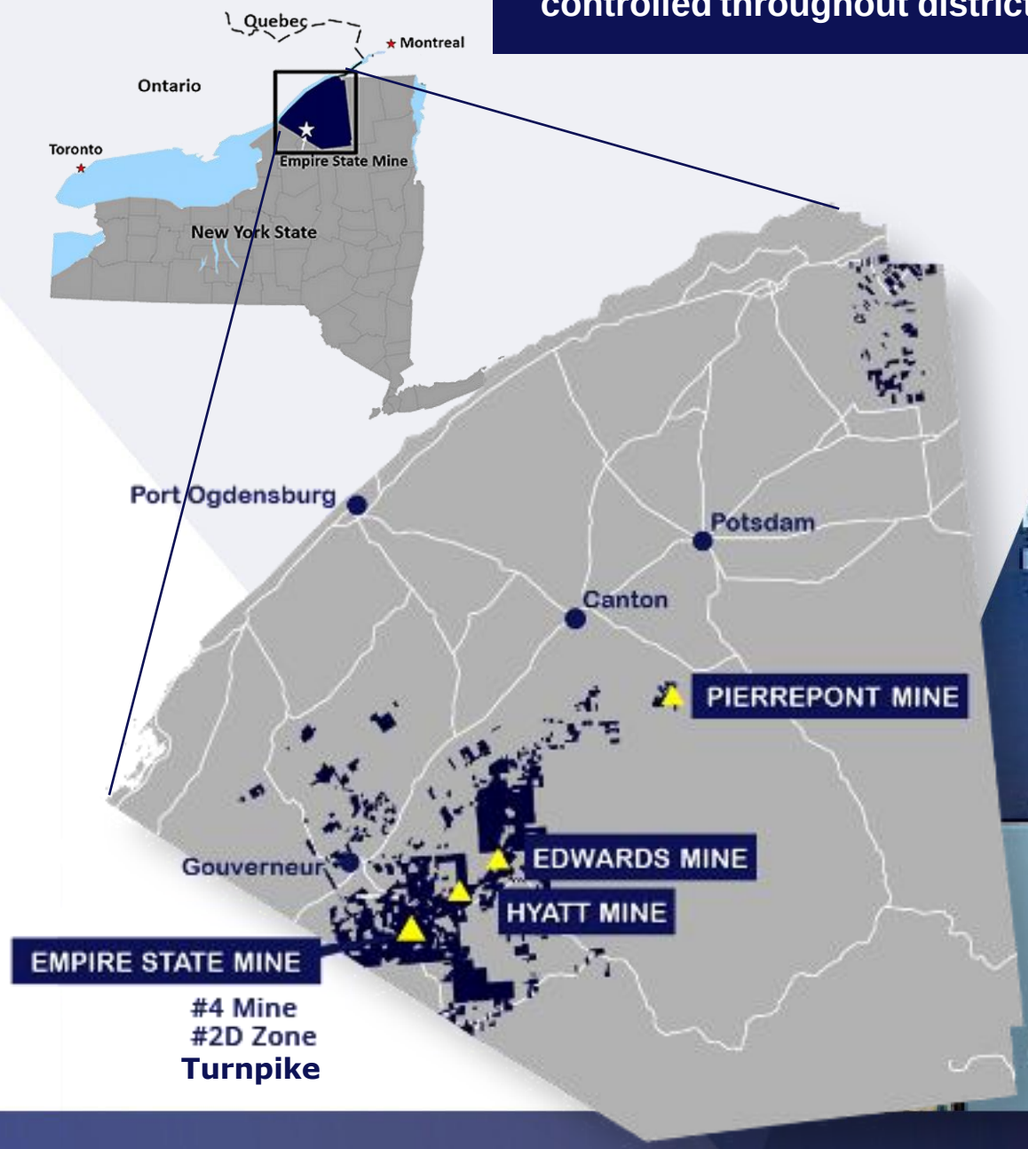
All figures as at September 30, 2024, unless stated otherwise:

1. Includes 6 million warrants which expire in November 2028 and 8.6 million warrants which expire in October 2024. Also includes 9.4 million stock options.
2. Market capitalization as of October 25, 2024.

U.S PRODUCTION BASE WITH GROWTH

- **Location and Infrastructure**
  - Cashflow-positive zinc producer in upstate NY
  - District scale potential with large land package (>80,000 acres) in 100 year old mining district
  - Safety record below national average and improving
  - Targeted increase in production by minimum 10% annually through steady reserve replacement
  - Mill with excess capacity to support continued growth
- **Significant Graphite discovery at Empire State Mine's (ESM)'s property**
  - The Kilbourne Graphite Target at ESM (the "ESM Graphite Target") has near surface potential
- **Goal of being first domestic supplier of natural flake graphite to the U.S domestic markets**
- **Existing mill and infrastructure provides established operating base**
- **ESM has established infrastructure links to support graphite export in the medium-long term**

>80,000 acres of mineral rights controlled throughout district



2023 ZINC PRODUCTION EXCEEDED GUIDANCE WITH RECORD SAFETY

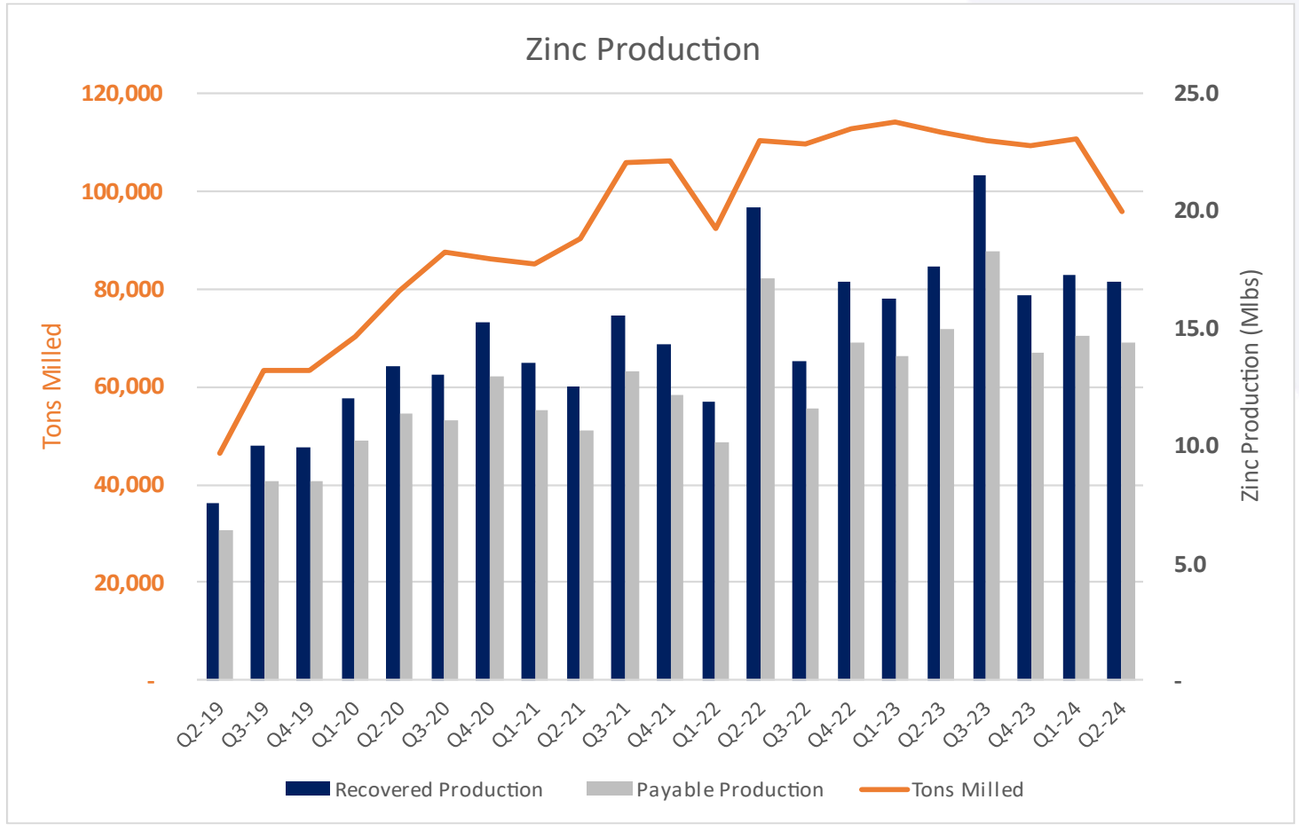
- **Record safety year with injury frequency rate of 0.7; 70% lower than national average**
- **Exceeded 2023 guidance of 54-58 M pounds**
- **Produced 61 M payable pounds of zinc in 2023 a 16% increase over the record set in 2022**
- **US$30 million in revenue in the first six months of 2024**
- **Estimating 56-60 million pounds of payable zinc for 2024**

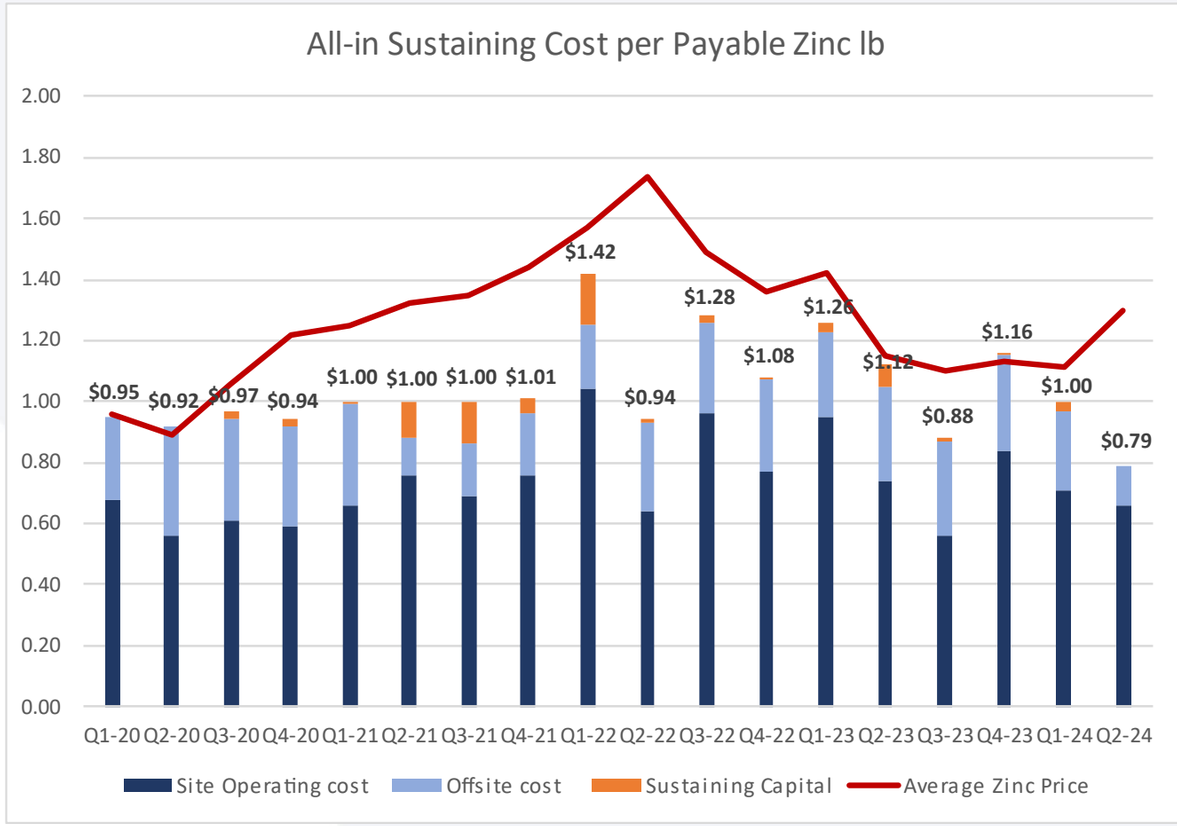
2024 ESM Production and Cost Guidance	
Payable Production Zinc	56-60 Million lbs
C1 Cash Cost[1]	0.98– 1.02 per lb
AISC[1]	1.04 – 1.10 per lb
Sustaining Capital	US$3 – US$5 Million
Exploration Capital	US$2 – US$3 Million

2023 HIGHLIGHTS	2023 Units US$/lb	2022 Units US$/lb
Average Zinc Price	1.19	1.55
Operating Expenses (Site Cost)	0.75	0.83
C1 Cash Cost[1]	1.05	1.11
AISC[1]	1.08	1.16
Earnings (loss) Per Share	(0.07)	(0.01)

1. C1 Cash Cost and AISC are non-GAAP measures. Accordingly, these financial measures are not standardized financial measures under IFRS and might not be comparable to similar financial measures disclosed by other issuers

ZINC IMPROVING PERFORMANCE AND TRAJECTORY



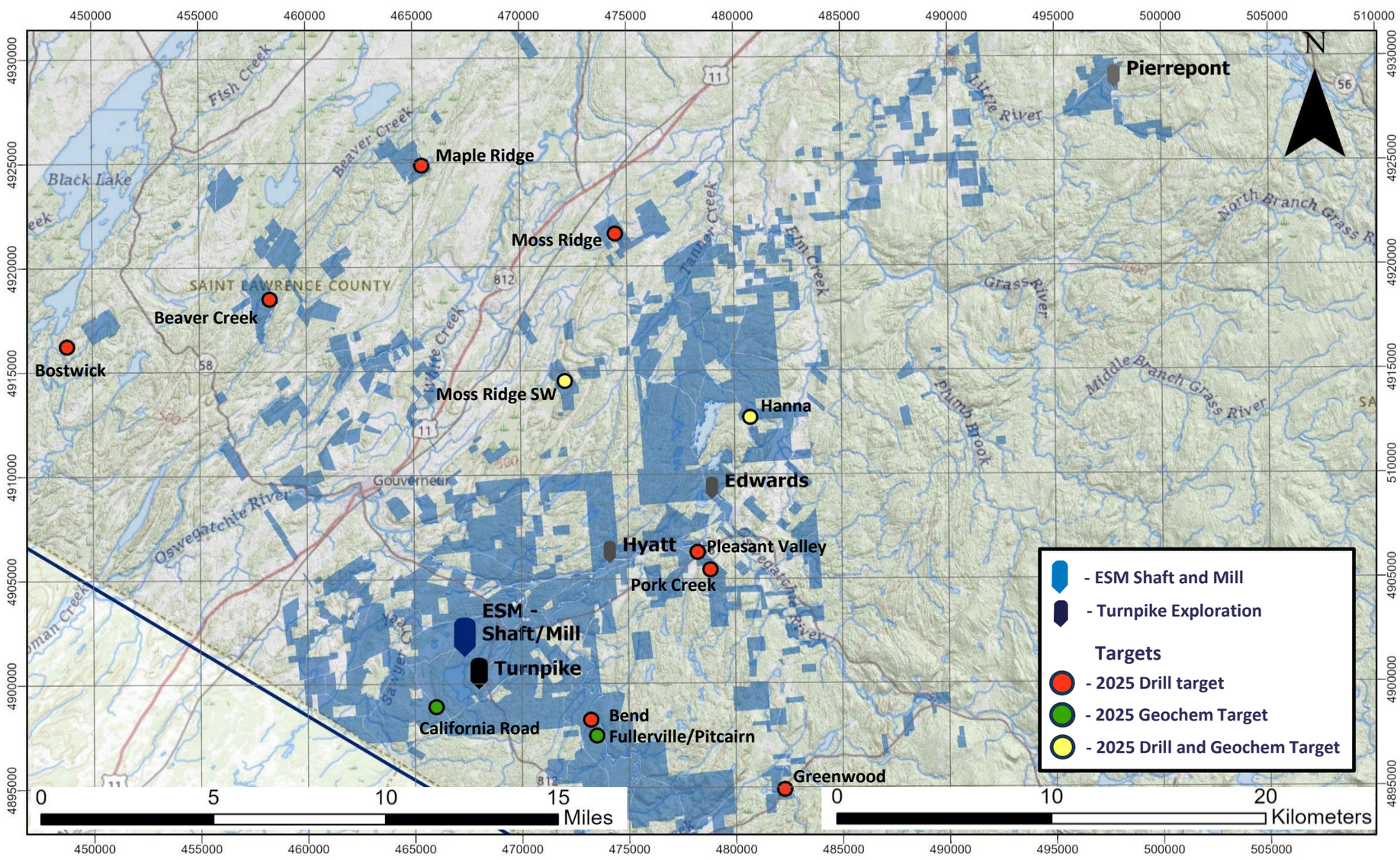


Notes:

- Site operating cost includes Mining, Processing, G&A, and concentrate transportation
- Offsite cost include treatment charge, penalties, and royalties
- Sustaining capex excludes expansion capex
- Low AISC in Q2-24 largely driven by treatment charge credits from Q1 which were realized in Q2, as well as zero capital spending and slightly lower site costs
- Production interruptions due to Storm Debbie are expected to be caught up by end of the year with guidance production on track

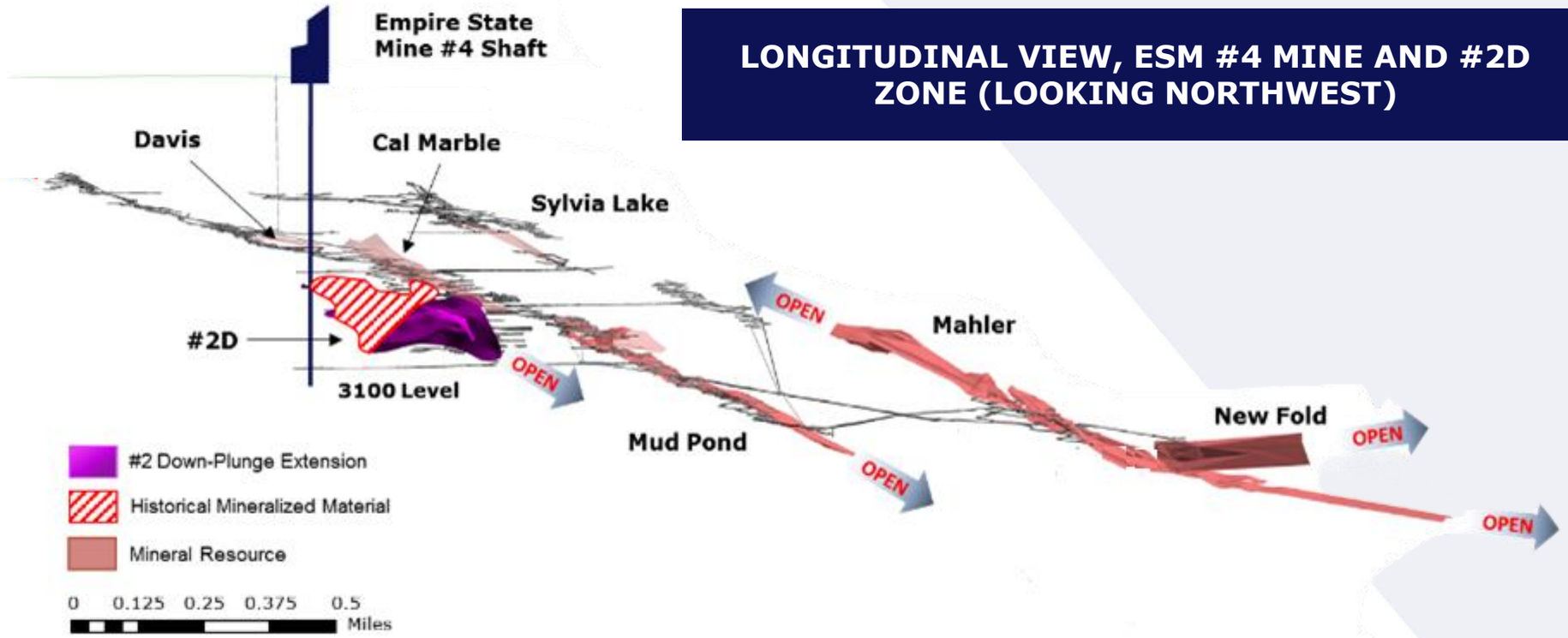
SURFACE EXPLORATION PLANNING: REGIONAL

- **Drilling (Red)**
  - Pleasant Valley/ Pork Creek
  - Bend
  - Moss Ridge
  - Bostwick
- **Developing Drill Targets (Red)**
  - Beaver Creek
  - Maple Ridge
  - Greenwood
- **Drilling and Geochem Target (Yellow)**
  - Hanna
  - Moss Ridge SW
- **Surface Geochem (Green)**
  - California Road
  - Fullerville/Pitcairn
- **Phased approach to evaluating ESM's mineral tenure through the collection of Soil, Rock, and Water samples**
- **Continued review of historic data, airborne geophysics, and geology for target generation and land acquisition**



RESOURCE EXPANSION POTENTIAL AT #4 AND #2D

- #4 mine – mineralized zones generally plunge to northeast; potential to extend zones up and down-plunge
  - Underground exploration drilling following up on intercepted mineralization between Mahler and New Fold.
- #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



LONGITUDINAL VIEW, ESM #4 MINE AND #2D ZONE (LOOKING NORTHWEST)

TITAN

ZINC - MINERAL RESOURCE

Underground as of 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 Reserves 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. 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.

Consistent Resource Expansion

- **Continued growth by the drill bit - Titan is confident in its ability to grow its mineral resources and production profile over time through infill drilling at N2D, Turnpike, Streeter, Mahler, New Fold, and Mud Pond**
- **Resource Update – Expected Q4 2024**

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, #2D, and Mud Pond
  - Drilling continues to expand and discover additional mineralization at #4 Mine and Turnpike Mine Project
  - Future discovery potential in the district

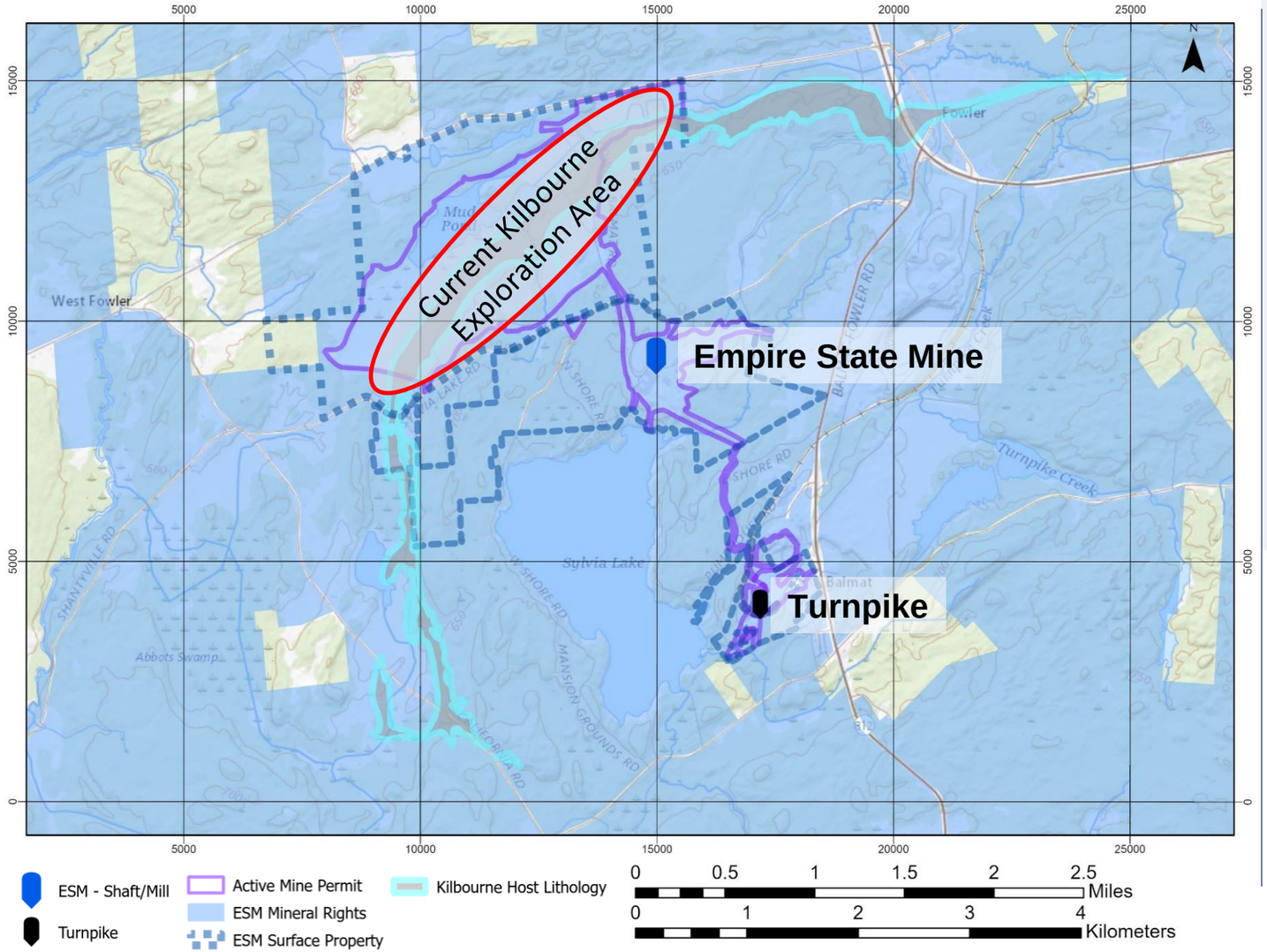
- **Targeting large, high-grade deposits (15 to 30+ Mt at 10% zinc) – new ideas and modern approach to exploration led by award-winning team**

Office building and 3,800 tpd shaft

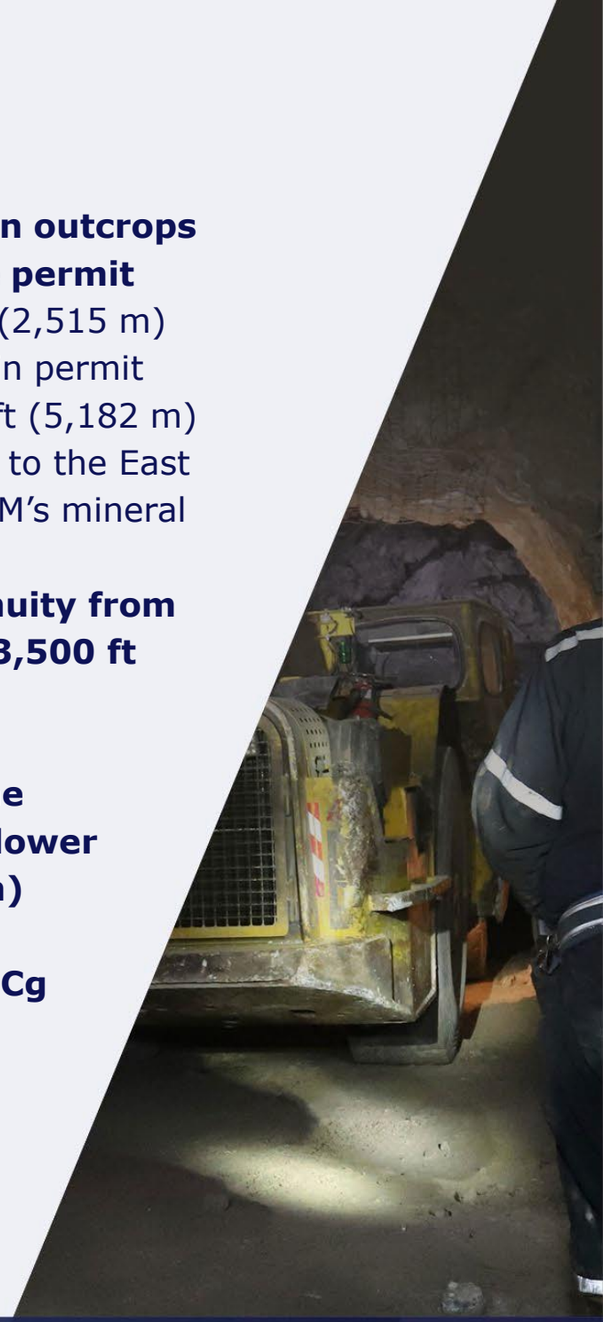
Underground crusher at 3,100 level

5,000 tpd processing plant

KILBOURNE GRAPHITE TARGET – SIGNIFICANT DISCOVERY



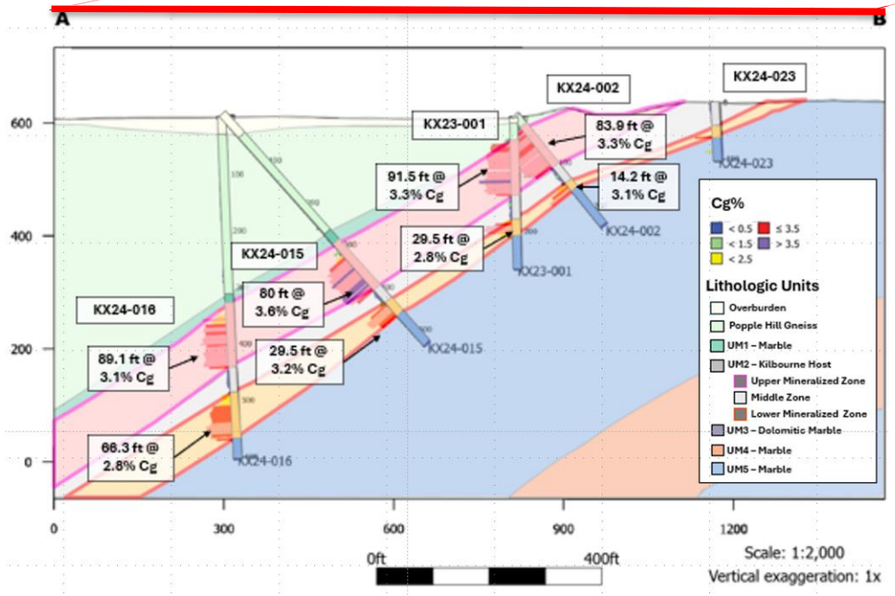
- **Kilbourne mineralization outcrops within ESM's active use permit**
  - Currently ~8,250 ft (2,515 m) of strike length within permit
  - Additional ~17,000 ft (5,182 m) of total strike length to the East and South within ESM's mineral rights
- **Drilling indicates continuity from surface to a depth of ~3,500 ft (~1,067 m)**
- **Average thickness of the mineralized upper and lower zones is 75.6 ft (22.9 m)**
- **Average grade is 3.0% Cg (graphitic carbon)**

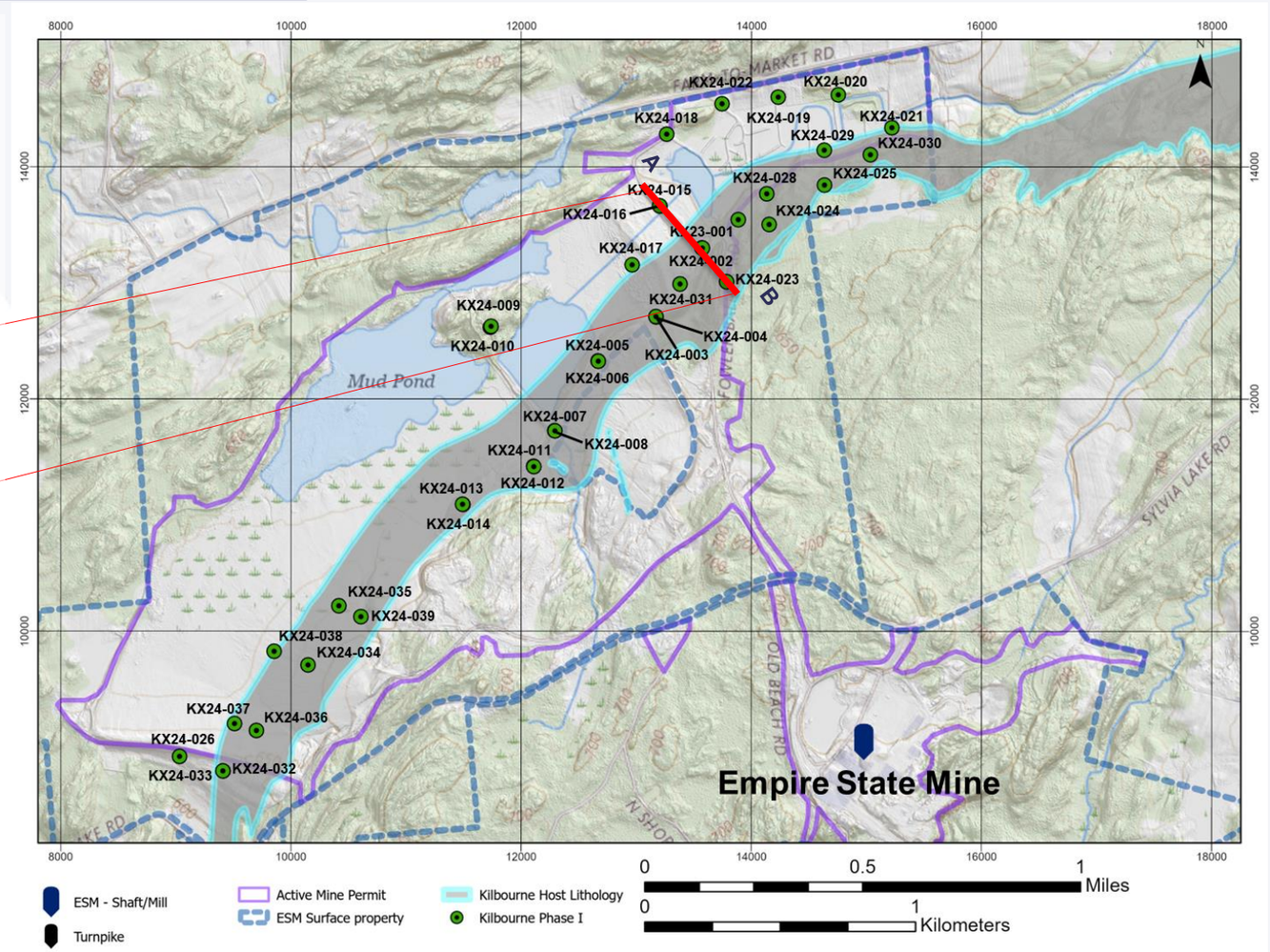


KILBOURNE GRAPHITE – EXPLORATION UPDATE

- **Phase 1 of Kilbourne Drilling (Dec 23 – Jun 24)**
  - 39 holes completed
  - Total 11,916 ft (3,362 m) of drilling
  - Tested 8,225 ft (2,507 m) of strike length
  - Upper mineralized zone averages 57 ft with an average grade of 3.1% Cg.
  - Lower mineralized zone averages 29 ft, with an average grade of 2.8% Cg.

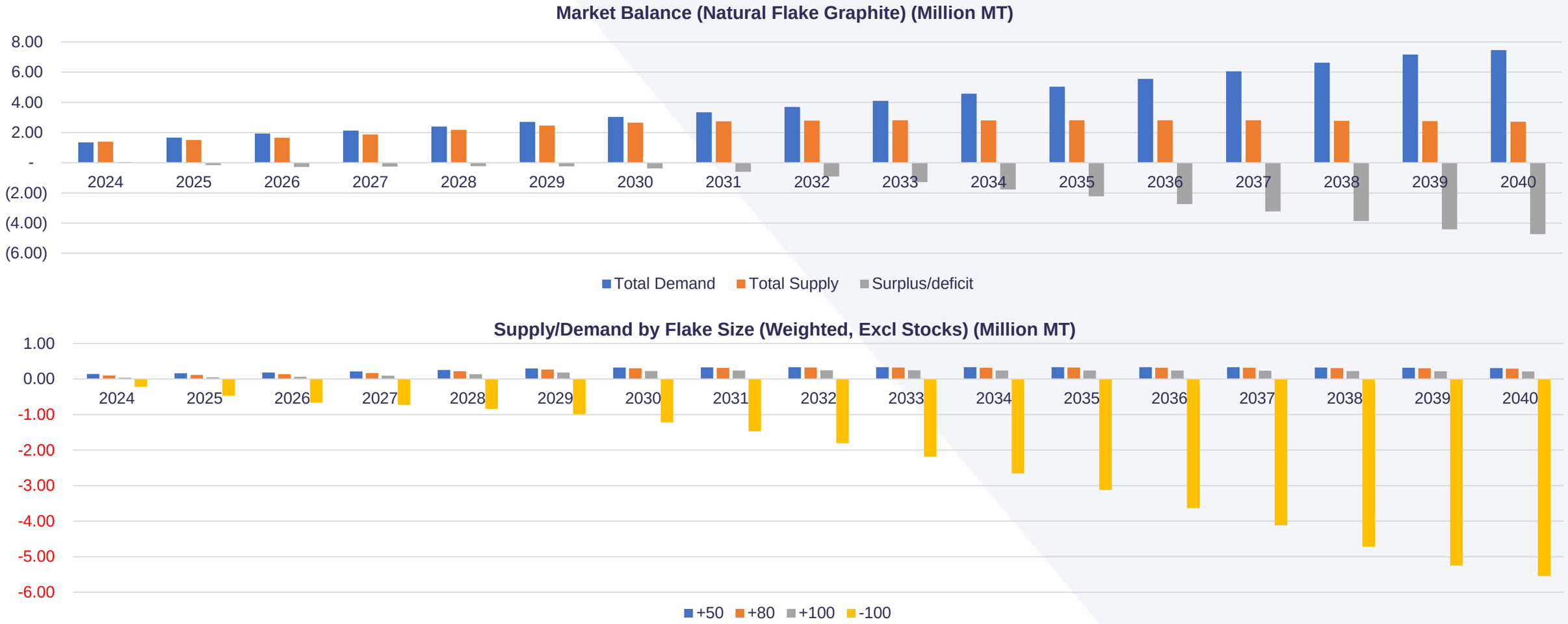
- **Kilbourne Trenching (Nov 23 – Jan 24)**
  - 2 trenches sampled, with 5 segments
  - 265 ft (80.7 m) sampled, totaling 91 samples
  - Successfully tested Cg mineralization at surface
  - Grades in line with drilling averaging ~ 3% Cg





TITAN

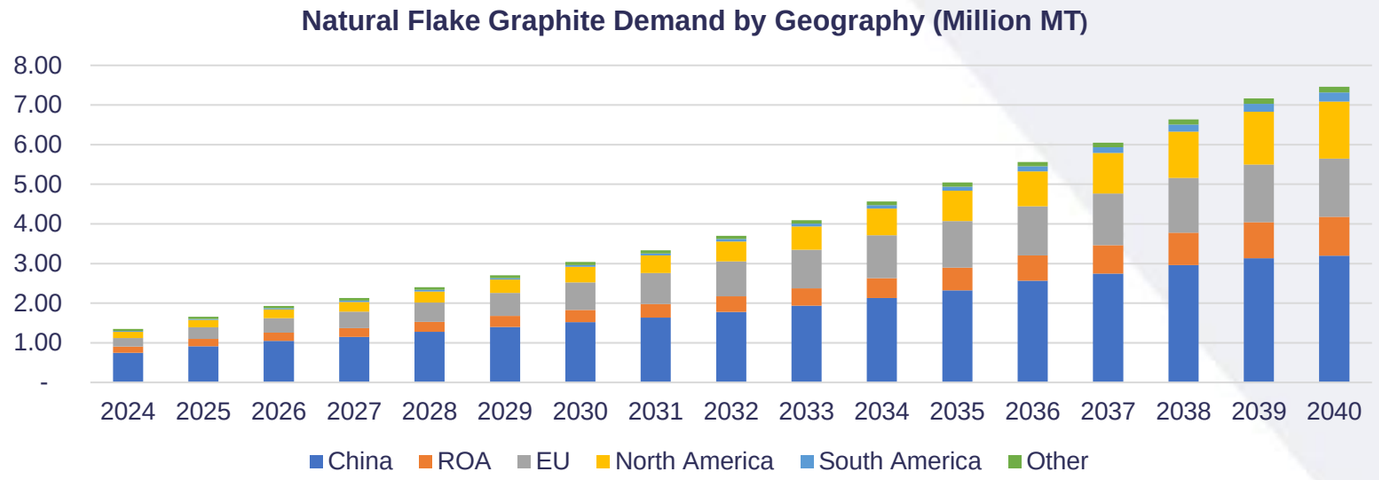
GRAPHITE –NATURAL GRAPHITE SUPPLY/DEMAND BALANCE

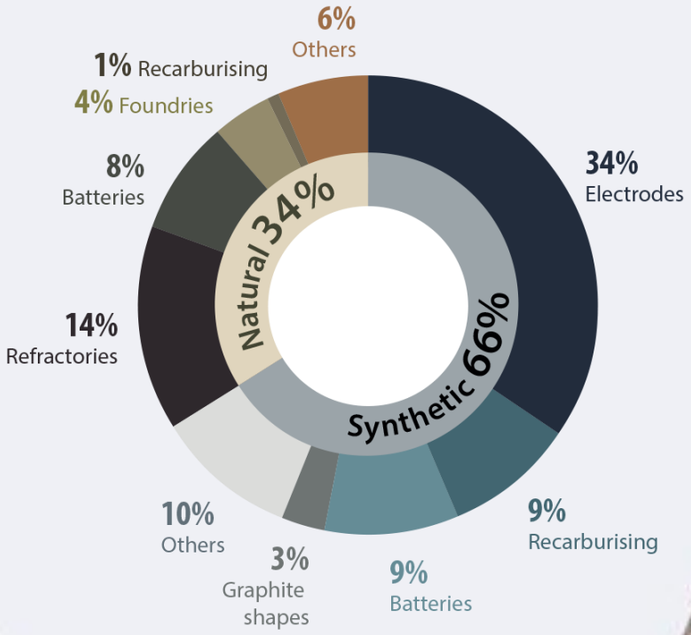


Overall Market Balance projected to be c.20% deficit from 2031 onwards growing to c.60%. Significant deficit being driven by demand for -100 mesh flake size (driven by Li-On battery demand).

Source: Benchmark Minerals 2024

GRAPHITE – CONSUMPTION BY TYPE AND REGION





- **No domestic commercial producers of natural flake graphite in the U.S**
- **North American demand projected to grow at CAGR of 15% p.a. Li-On batteries are key driver of demand growth driven by EV growth**
- **Lack of domestic source, concerns with supply security, and projected demand (exceeding production by 79% in 2023) have earned graphite a place on the United States Department of Energy's critical materials list.**
- **By the year 2035 that gap between production and demand is projected to range from 34% up to 822%. Even with developments elsewhere in world, China is expected to maintain their global dominance.**

Sources: Benchmark Minerals and Reuters – Auto firms race to secure non-Chinese graphite for EVs as shortages loom (https://www.reuters.com/business/autos-transportation/auto-firms-race-secure-non-chinese-graphite-evs-shortages-loom-2023-06-21/) Natural Resources Canada – Graphite Facts. Department of Energy – 2023 Critical Material Assessment Report (https://www.energy.gov/sites/default/files/2023-07/doe-critical-material-assessment_07312023.pdf)

BATTERY CAPACITY INSTALLATIONS IN NORTH AMERICA AND EUROPE

- **ESM is located within close proximity to planned secondary processing facilities and North American gigafactories**
- **As of 2021 roughly 1,265 GWh of battery capacity being built in North America and Europe[1]**
- **Graphite mineralization at ESM is within ESM's permit, providing a possible fast track to a production decision**

1. Benchmark Mineral Intelligence 2021

SHORT TERM KEY CATALYSTS

Maiden Resource Statement for Kilbourne Graphite – **Q4 2024**

FY 2025 Guidance Update – **Q1 2025**

Economic analysis relating to Kilbourne Graphite – **2025**

Updated Resource Statement and LOM for Zinc Operations – **Q4 2024**

District exploration update and forward plans for 2025 – **Q4 2024**

Infill drilling on Kilbourne and continued metallurgical de-risking **H1 2025**

APPENDIX

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

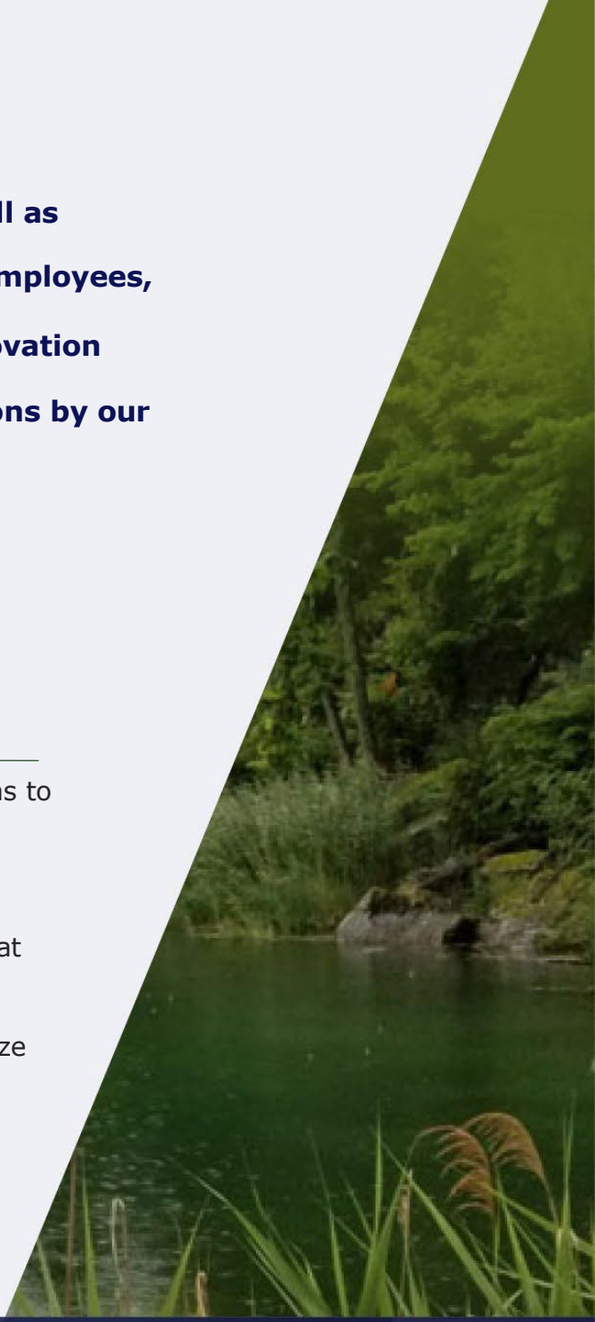
COMMUNITY INVOLVEMENT

- 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

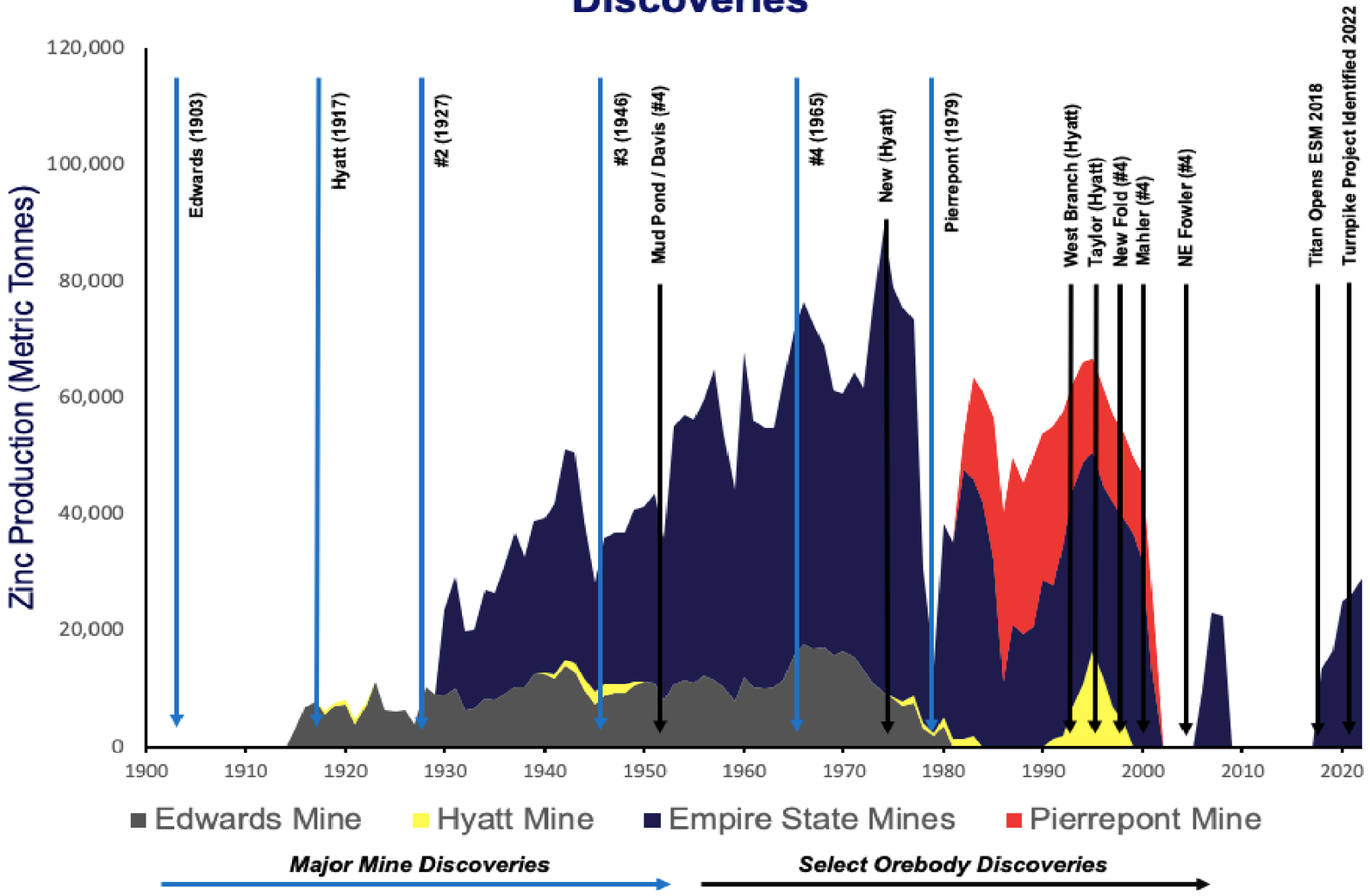
ENVIRONMENTAL AND SOCIAL STEWARDSHIP

- 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



HISTORY OF EXPLORATION SUCCESS | Potential for Additional Discoveries

Long Production History with Numerous 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

TITAN

CAUTIONARY NOTES

Scientific and Technical Information

The scientific and technical information contained in this presentation relating to ESM's zinc operations was based upon the technical report titled "Empire State Mines 2021 NI 43-101 Technical Report (Amended)", prepared by qualified persons, D. Warren, P. Eng., G Methven, P. Eng., D. Malhotra, SME, D. Vatterodt, SME, B. Peacock, P. Eng., and M. Hastings, MAusIMM.

The scientific and technical information contained in this presentation relating to the exploration targets and Kilbourne graphite target and the sampling, analytical and test data underlying such scientific and technical information, where relevant has been reviewed, verified and approved by Donald R. Taylor, MSc., PG, Chief Executive Officer of the Company, a qualified person for the purposes of NI 43-101. 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). The data was verified using data validation and quality assurance procedures under high industry standards.

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.

Analysis has been performed as SGS Canada Inc. ("SGS") an independent ISO/IEC accredited lab. Sample preparation (crushing and pulverizing) and total graphitic carbon analysis has been completed at SGS Lakefield, Ontario, Canada. SGS prepares a pulp of all samples and sends the pulps to their analytical laboratory in Burnaby, B.C., Canada for multielement analysis. SGS analyzes the pulp sample by leach and IR combustion for total graphitic carbon (GC_CSA05V) and aqua regia digestion (GE-ICP21B20 for 34 elements) with an ICP – OES 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 (GO_ICP21B100) with the elements reported in percentage (%).

Additional sample preparation (crushing and pulverizing) has been performed at ALS Geochemistry ("ALS"), an independent ISO/IEC accredited lab located in Sudbury, Ontario, Canada. ALS 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). Graphite values are determined by leach and induction furnace/IR (C-IR18).

The Company has not identified any drilling, sampling, recovery, or other factors that could materially affect the accuracy or reliability of the data set out in this presentation. True widths of the mineralized zones described in this presentation are not presently known.

TSX: TI

Email: info@titanminingcorp.com
Phone: 604-687-1717
www.titanminingcorp.com
OTCQB: TIMCF

TITAN