



**BUILT FOR  
GROWTH**

**augustagroup**

# Investor Presentation

DECEMBER 2024 | TSX: **TI**





### 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; potential and ability to add incremental production at low cost; the ability for Kilbourne to be fast-tracked into production; that Kilbourne ever goes into production at all; that ESM becomes the first commercial producer of US sourced and processed graphite, or a commercial of graphite at all; significant resource upside; potential ability to expand mineral resources; the future development of a Kilbourne Commercial Demonstration Plant; production and cost guidance; production interruptions due to Storm Debbie are expected to be caught up by end of the year with guidance production on track; future exploration potential; when future LOM updates may be released; catalysts for Titan's business; timing of a PEA for Kilbourne; the graphite development plan and indicative timeline; and the ability to add incremental resources and production.

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](http://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 and graphite; 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.



# Track Record of Value Creation

## Past Augusta Group Company Returns

**12,960%**  
Return  
SOLD for \$1.6B

**3,300%**  
Return  
SOLD for \$667M

**1,000%**  
Return  
\$1.6B Market Cap<sup>(1)</sup>

**6,100%**  
Return  
SOLD for \$2.1B

2011

2014

2017

2018

Notes (1) Co-Founded in 2017 (2) Information as of December 2, 2024

## Current Augusta Group Companies<sup>(2)</sup>

**C\$693M**  
Market Cap  
TSX: SLS  
NYSE: SLSR


**C\$30M**  
Market Cap  
TSX: TI

**C\$108M**  
Market Cap  
TSX: G  
OTCQB: AUGG

**C\$82M**  
Market Cap  
CSE: HSLV



## PROVEN SUCCESS

 Mine development, operational excellence & innovation

 Exploration

 Capital markets & Mergers & Acquisitions

 Corporate social responsibility

# A Best-in-class Leadership Team



**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

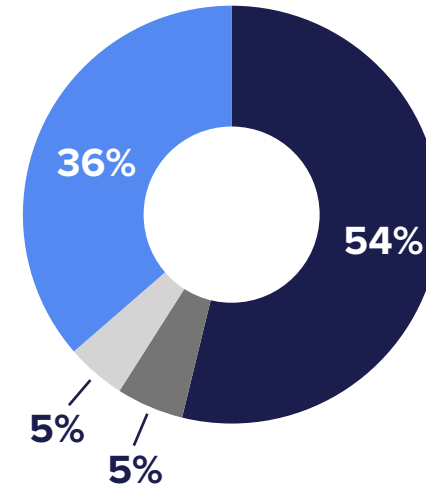
- > **Optimizing cash flow and focused on de-leveraging**
- > **High insider ownership**
- > **Unique positioning: junior with steady-state cash flow, significant exploration upside and critical metals strategic positioning**

## CAPITAL STRUCTURE

|   |                |
|---|----------------|
| Toronto Stock Exchange Symbol                   | TI             |
| Cash Position                                   | US\$6 M        |
| Third party short term debt                     | US\$15M        |
| Shares Outstanding <sup>(1)</sup>               | 136 M          |
| Fully Diluted Shares Outstanding <sup>(1)</sup> | 154 M          |
| Market Capitalization <sup>(2)</sup>            | <b>C\$30 M</b> |

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

1. 6M Warrants, 10M Options
2. Market capitalization as of December 2, 2024
3. As of November 19, 2024, Bloomberg
4. Management excludes Mr. Warke and includes other members of the Titan board and management team



## Shareholder

### Distribution<sup>(3)(4)</sup>

- RICHARD WARKE
- BLACKROCK
- BOARD & MANAGEMENT
- OTHERS



# Investment Highlights

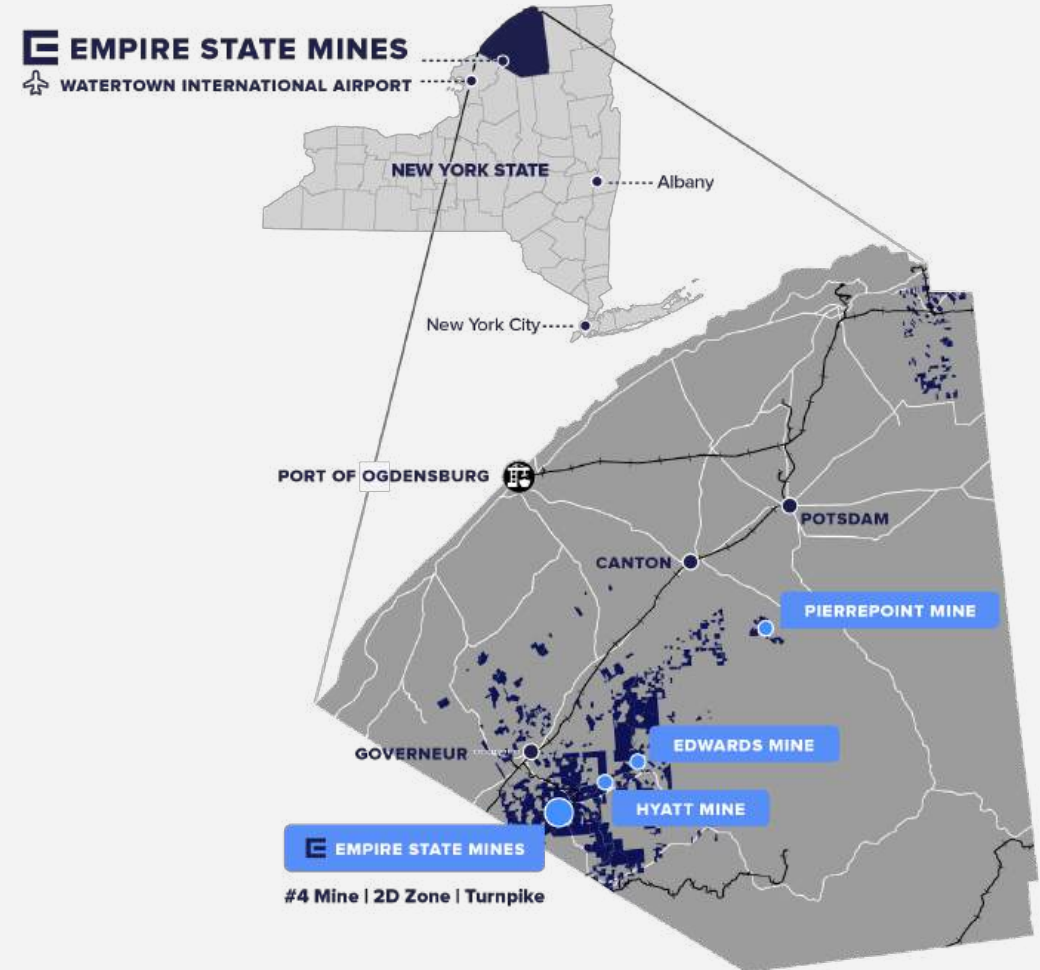
- > **U.S production base in upstate New York**
  - > Existing infrastructure includes 5,000 tpd mill, skilled workforce of 135 employees, rail, port and air access
  - > Cash flow positive zinc mine
- > **Existing permitted operations with state level permitting only**
- > **80,000 acres of mineral rights controlled throughout the district,**
- > **Regional district scale and near mine exploration potential and ability to add incremental production at low cost**
- > **Significant graphite discovery at Empire State Mine's (ESM)'s property**
  - > The Kilbourne Graphite Project is a near surface discovery within 1 mile of the ESM mill
- > **Unique advantage of existing operating base creating pathway for co-production**
- > **Disciplined approach to fast-tracking Kilbourne's development to production**
- > **Target to be the first commercial producer of US sourced and processed graphite**

**Solid foundations and building for growth**



# >80,000

acres of mineral rights controlled throughout the district





**2024 ZINC GUIDANCE- PRODUCTION AND COST**

|                                    |                              |
|------------------------------------|------------------------------|
| <b>Payable Production Zinc</b>     | <b>56-60 Million lbs</b>     |
| <b>C1 Cash Cost <sup>(1)</sup></b> | <b>0.98 - 1.02 per lb</b>    |
| <b>AISC<sup>(1)</sup></b>          | <b>1.04 - 1.10 per lb</b>    |
| <b>Sustaining Capital</b>          | <b>US\$3 - US5\$ Million</b> |
| <b>Exploration Capital</b>         | <b>US\$2 - US3\$ Million</b> |

| <b>2023 ZINC HIGHLIGHTS</b>           | <b>2023 UNITS<br/>US\$/lb</b> | <b>2022 UNITS<br/>US\$/lb</b> |
|---------------------------------------|-------------------------------|-------------------------------|
| <b>Average Zinc Price</b>             | <b>1.19</b>                   | <b>1.55</b>                   |
| <b>Operating Expenses (site cost)</b> | <b>0.75</b>                   | <b>0.83</b>                   |
| <b>C1 Cash Cost <sup>(1)</sup></b>    | <b>1.05</b>                   | <b>1.11</b>                   |
| <b>AISC<sup>(1)</sup></b>             | <b>1.08</b>                   | <b>1.16</b>                   |
| <b>Earnings</b>                       | <b>(0.07)</b>                 | <b>(0.01)</b>                 |

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. Information explaining these non-GAAP measures is set out in the Company's most recent MD&A under the section titled, "Non-GAAP Financial Measures" which disclosure is incorporated by reference herein. The Company's most recent MD&A can be found on SEDAR+ at [www.sedarplus.com](http://www.sedarplus.com)

# Zinc

- > Exceeded 2023 guidance of **54-58M lbs**
- > **61M lbs zinc produced in 2023, up 16% YoY**
- > **US\$38m** in revenue in the first nine months of **2024**
- > **Estimating 56-60 M lbs of payable zinc for 2024 at or below forecast AISC**



**#4 mine at Empire State Mines**



**Existing 5,000 tpd mill**

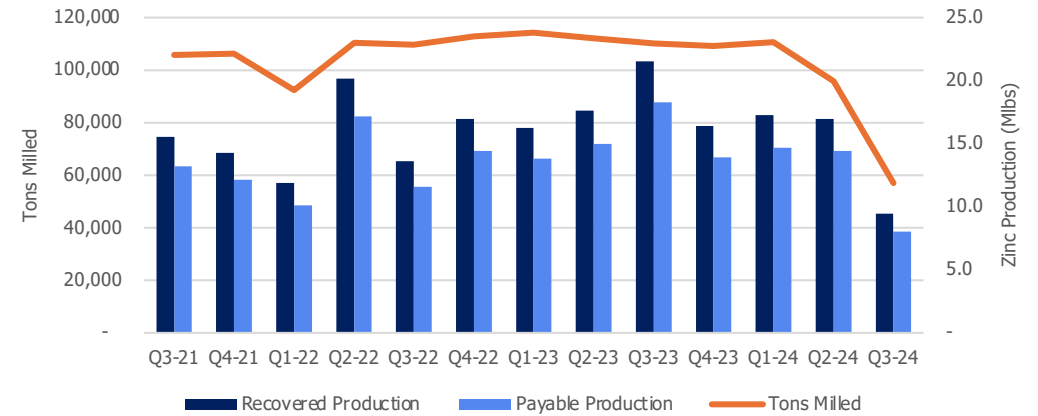


# Zinc

## Solid foundations with improving trajectory

- > Mill operating at average throughput of 1,750tpd
- > Production interruptions due to Storm Debbie are expected to be caught up by end of the year with guidance production on track
- > Site operating cost includes mining, processing, G&A, and concentrate transportation
- > Offsite cost include treatment charge, penalties, and royalties
- > Sustaining capex excludes expansionary
- > 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
- > Forecast AISC for FY2024 in line with guidance

### ZINC PRODUCTION



### ALL-IN SUSTAINING COST PER PAYABLE ZINC LB (US\$/lb)

| Category                  | FY23        | Q1 24       | Q2 24       | Q3 24       |
|---------------------------|-------------|-------------|-------------|-------------|
| Site Operating Cost       | 0.75        | 0.71        | 0.66        | 1.13        |
| Offsite Cost              | 0.30        | 0.26        | 0.13        | 0.19        |
| Sustaining Capital        | 0.03        | 0.03        | 0.00        | 0.03        |
| <b>AISC<sup>(1)</sup></b> | <b>1.08</b> | <b>1.00</b> | <b>0.79</b> | <b>1.35</b> |

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. Information explaining these non-GAAP measures is set out in the Company's most recent MD&A under the section titled, "Non-GAAP Financial Measures" which disclosure is incorporated by reference herein. The Company's most recent MD&A can be found on SEDAR+ at [www.sedarplus.com](http://www.sedarplus.com)





# Zinc

## Near term resource expansion and production increase potential

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

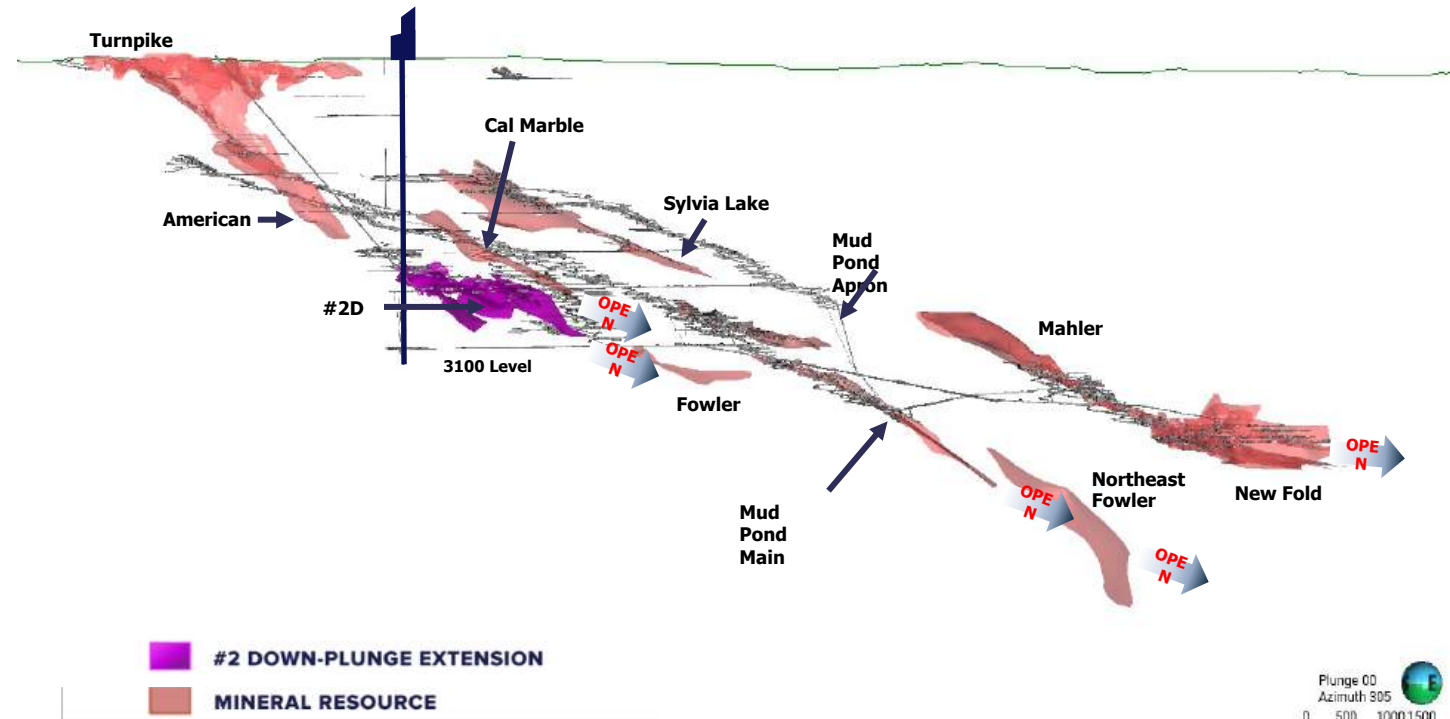
- Underground exploration drilling following up on intercepted mineralization between Mahler and New Fold.

**#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 capex

Ability to add near term production increases through near mine exploration at low cost

ESM #4 Mine and #2D Zone (looking northwest)

LONGITUDINAL VIEW





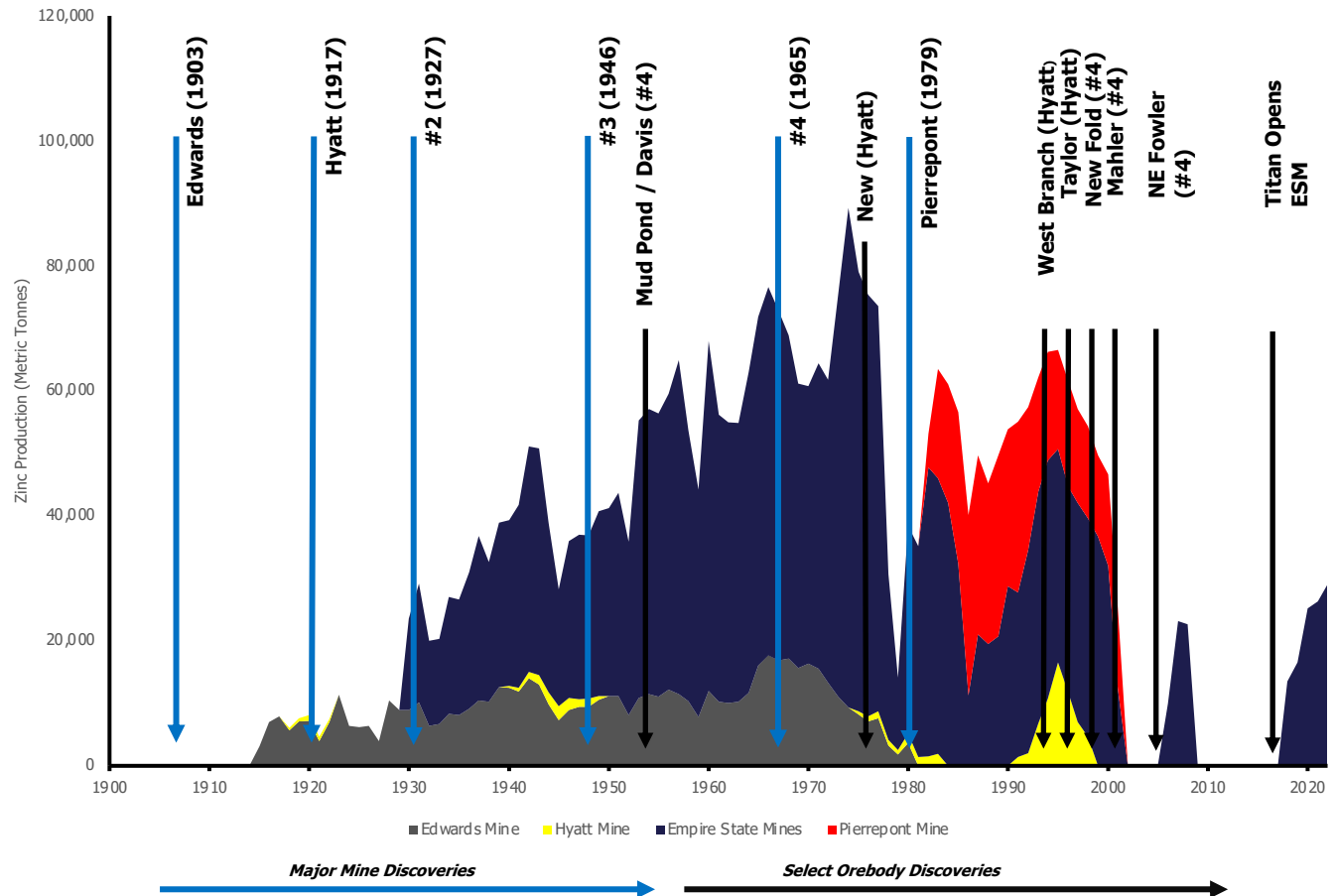
# History of exploration success

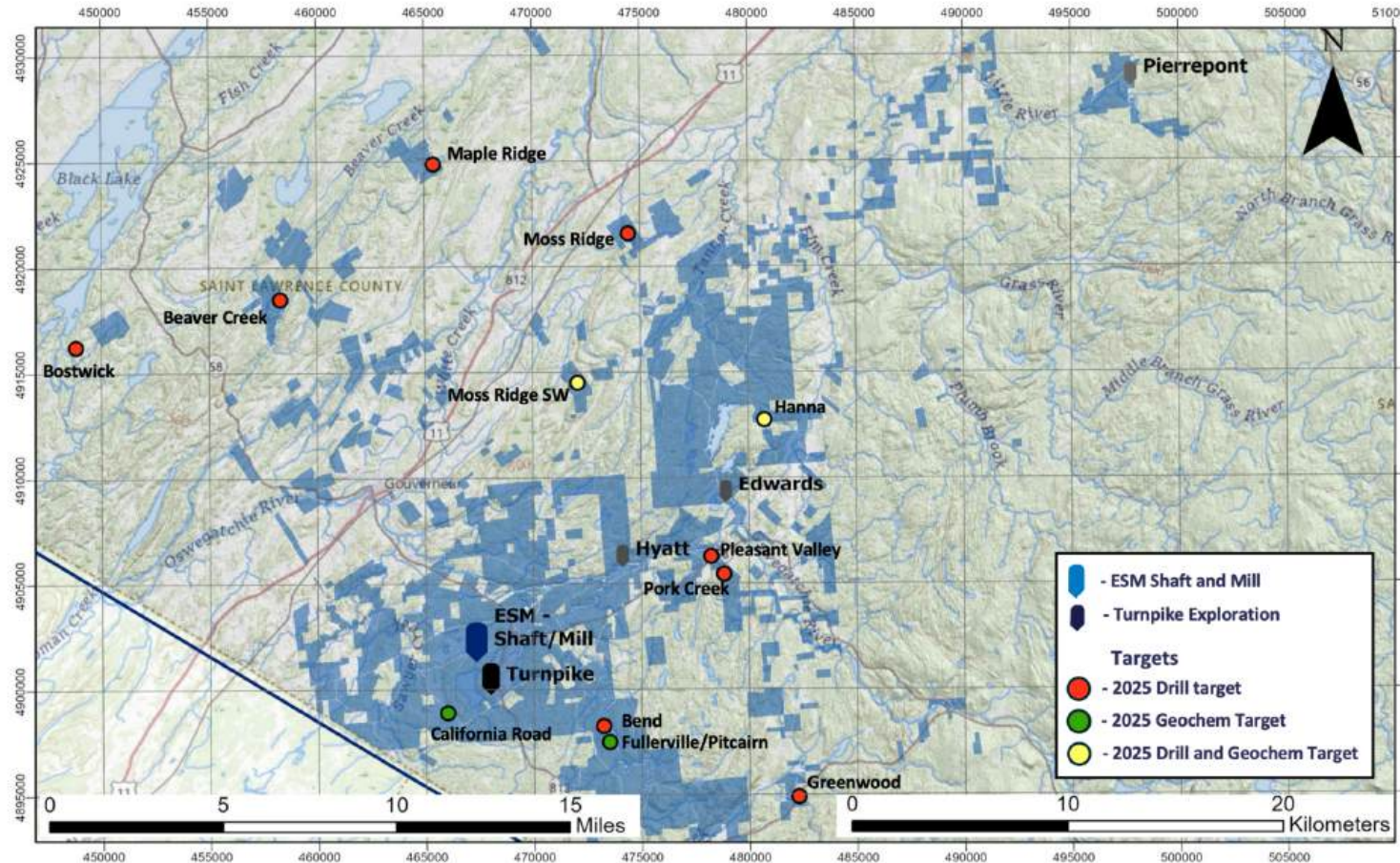
## Potential for additional discoveries

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

## Long production history with numerous discoveries





# Surface Exploration Planning - Regional

- > Phased approach to evaluating ESM’s mineral tenure through the collection of soil, rock, and water
- > Continued review of historic data, airborne geophysics, and geology for target generation and land acquisition

**DRILLING**

- Pleasant Valley / Pork Creek
- Bend
- Moss Ridge
- Bostwick

**DEVELOPING DRILL TARGETS**

- Beaver Creek
- Maple Right
- Greenwood

**DRILLING & GEOCHEM TARGET SURFACE GEOCHEM**

- Hanna
- Moss Ridge SW
- California Road
- Fullerville / Pitcairn

**Multiple regional targets within existing mineral rights and close to the mill**



Underground Drilling at ESM



Drill core from N2D

UNDERGROUND AS OF OCTOBER 1, 2020

| Category                      | Tons (000's US short tons) | Zn (%)       | Contained Pounds (M Lbs) |
|-------------------------------|----------------------------|--------------|--------------------------|
| Measured                      | 190                        | 13.65        | 51.6                     |
| Indicated                     | 1,524                      | 11.49        | 350.3                    |
| <b>Measured and Indicated</b> | <b>1,714</b>               | <b>11.72</b> | <b>401.9</b>             |
| Inferred                      | 6,511                      | 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-offgrade, 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.

# Zinc

## Consistent Resource Replacement and Expansion

Continued Growth by the Drill Bit

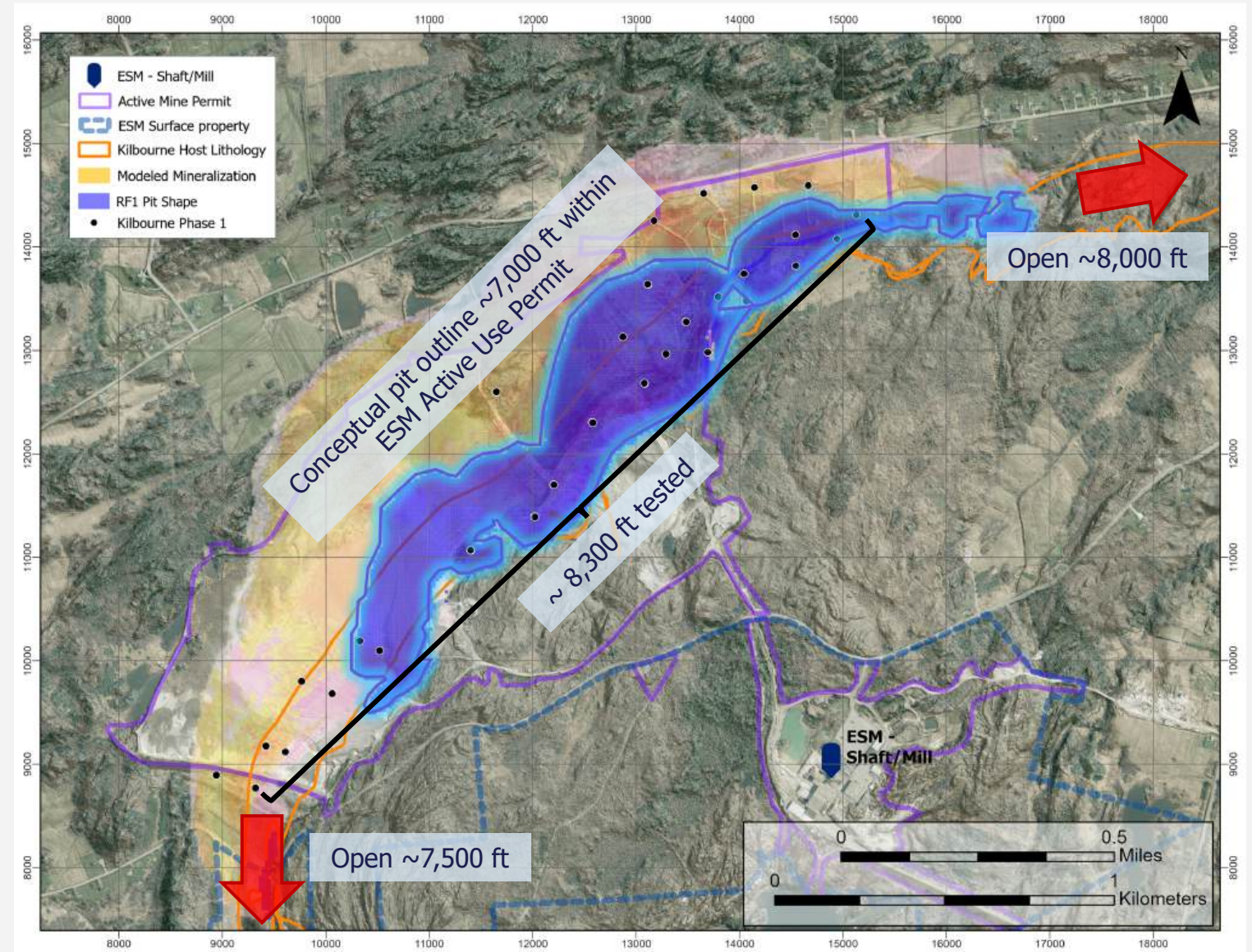
Resource and LOM Update

Titan expects to expand its mineral resources and production through infill drilling at N2D, Turnpike, Streeter, Mahler, New Fold and Mud Pond

To be released in December 2024

# Kilbourne Graphite Maiden Resource

- > Open-pit constrained inferred resource of 22 million tons at an average grade of 2.91% Cg (based on a cut off grade of 1.50%)
- > 653 kt of contained graphite within inferred resource estimate
- > 8,300 ft of strike length tested of a total strike length of 25,000 ft
- > 7,000 ft of conceptual pit is within ESM active use permit
- > Only 30% of the Kilbourne trend has been tested
- > Potential for expansion along strike and down dip
- > Nearly all of the existing resource is within active mine use permit – only permits required to bring to production are state level permits
- > Existing plant and infrastructure allows Kilbourne to be potentially fast-tracked into production
- > Targeting to be the first commercial producer of US sourced and processed graphite

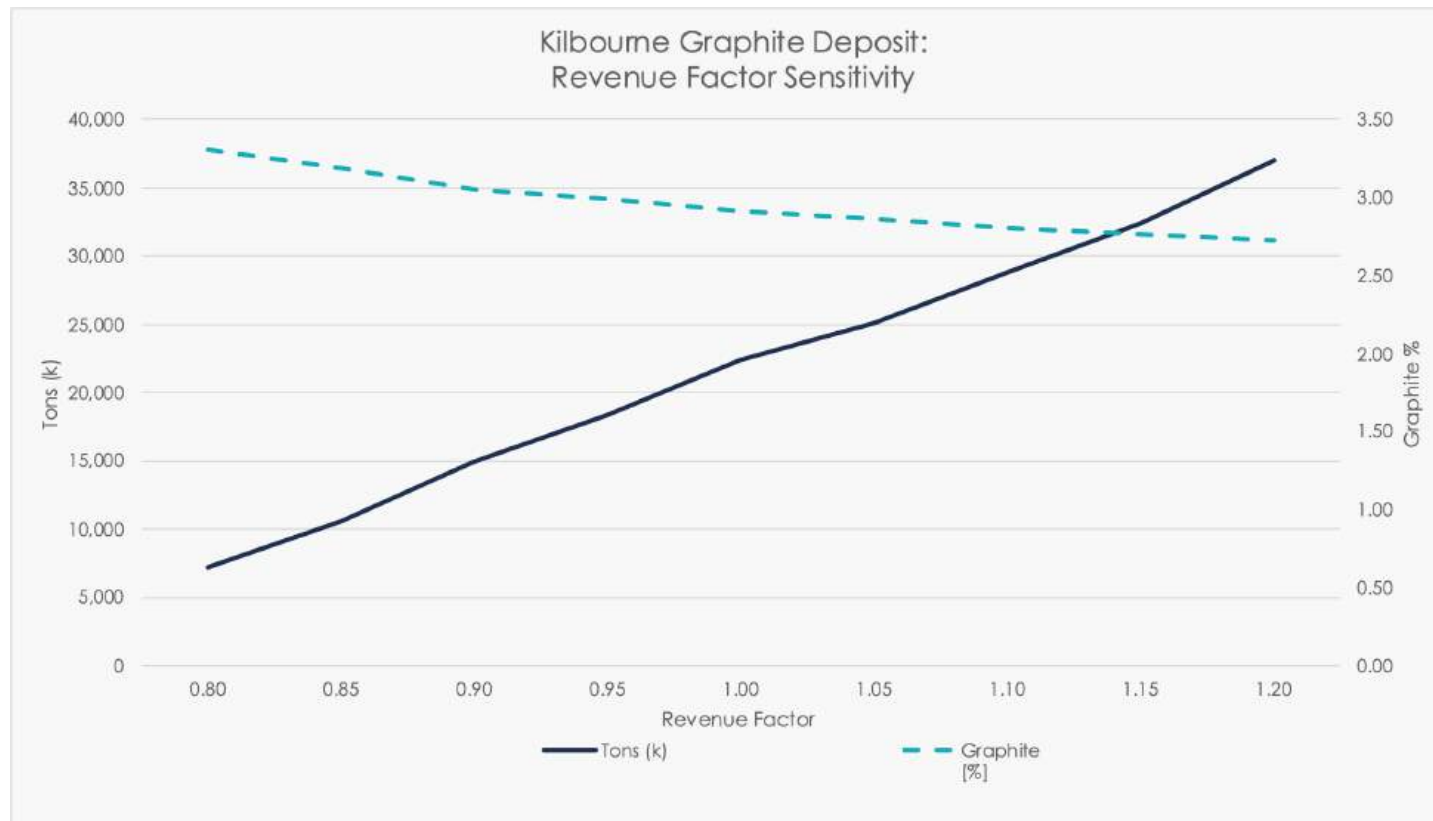


**Strengthening the domestic critical minerals supply chain**



## Mineral Resource Estimate

| Classification | Deposit   | Cut-Off Grade (% Cg) | Tonnage ('000 Ton) | Grade (% Cg) | Contained Graphite ('000 Ton) |
|----------------|-----------|----------------------|--------------------|--------------|-------------------------------|
| Inferred       | Kilbourne | 1.50                 | 22,423             | 2.91         | 653                           |



## Long-life open pit Resource

- > Based on 45 surface diamond drill holes
- > Mining cost of \$4.60/t for mineralized rock, \$3.50/t for unmineralized rock, \$2.00/t for overburden and tailings
- > Processing cost of \$14/t
- > 91% recovery and concentrate grade of 95%
- > Assumed selling price of \$1,090/t of concentrate and transportation cost of \$50/ton
- > Resource reported in terms of a pit-constrained cut off value of 1.50% Cg



**Phase I-SGS<sup>(1)</sup>**

| Concentrate Size Fraction | Wt%         | Assays % C(t) <sup>(2)</sup> | % distribution C(t) |
|---------------------------|-------------|------------------------------|---------------------|
| +65 mesh                  | 0.9%        | 94.6%                        | 0.9                 |
| +80 mesh                  | 1.8%        | 95.0%                        | 1.7                 |
| +100 mesh                 | 4.9%        | 96.6%                        | 4.8                 |
| +150 mesh                 | 18.2%       | 99.2%                        | 18.6                |
| +200 mesh                 | 23.1%       | 96.8%                        | 23.0                |
| -200 mesh                 | 51.1%       | 97.3%                        | 51.0                |
| <b>Total Concentrate</b>  | <b>100%</b> | <b>97.4%</b>                 | <b>100</b>          |

**Phase II-Forte<sup>(3)</sup>**

| Concentrate Size Fraction | Mass %      | Assays % C(g) <sup>(4)</sup> |
|---------------------------|-------------|------------------------------|
| +65 mesh                  | 6.75%       | 98%                          |
| +100 mesh                 | 14.55%      | 100%                         |
| +200 mesh                 | 42.86%      | 98%                          |
| +325 mesh                 | 23.90%      | 97%                          |
| -325 mesh                 | 11.95%      | 98%                          |
| <b>Total Concentrate</b>  | <b>100%</b> | <b>98%</b>                   |

1. SFA analysis from Phase I metallurgy at SGS.
2. SGS has reported concentrate assay results in total carbon (C(t)), the inference is that this represents graphitic carbon in a high-grade concentrate.
3. Sample was from upper zone of mineralization.
4. Forte had initially reported the assay grades in organic carbon (C(organic)), this was the result of the C(t) of the initial samples less the soluble C associated with carbonates. This balance, in the absence of organic materials, represents graphitic carbon C(g).

# Metallurgy

- > Two phases of metallurgy run at SGS Lakefield and Forte Dynamics
- > **SGS Lakefield (Phase I)**
  - > Sample provided captured barren middle zone
  - > Concentrate grades >95% C(t)
  - > Open circuit recovery 86.5%; Expected to increase to 90-91% in closed circuit
  - > Large percentage of of -200 mesh, grade is exceptionally high at 97.3% C(t)
  - > Optical Mineralogy shows flakes several hundred microns long
- > **Forte Dynamics (Phase II)**
  - > Preliminary reports in line with Phase I on recovery
  - > Higher Wt% of coarse fractions, with notable increases in +65 and +100 mesh fractions
  - > Additional Fractions below -200 mesh
  - > -325 mesh at 11.9 Wt.% of sample



# Price Sensitivities and Kilbourne Graphite Product Segments

- > Assumed selling price of \$1090/t of concentrate providing 22mt of mill feed @2.91% Cg
- > Selling price based on conservative/low-case target market of industrial and lubricant use with no value-add products considered
- > Significant resource upside from minimal pricing increase from sales to engineered products, energy storage and battery products segments
- > Further resource expansion through drilling the remaining resource area
- > The Kilbourne Commercial Demonstration Plant is targeted to de-risk commercialization through (i) product qualification for higher value segments and (ii) establishing base line US domestic customers within traditional markets

## PRICING SENSITIVITIES – KILBOURNE MINERAL RESOURCE

| \$USD per Ton Concentrate | RF          | Graphite [%] | Mill Feed [k Ton] | Contained Graphite [k Ton] | Waste [k Ton] | Overburden [k Ton] |
|---------------------------|-------------|--------------|-------------------|----------------------------|---------------|--------------------|
| 872.00                    | 0.80        | 3.30         | 7,198             | 238                        | 4,810         | 3,532              |
| 926.50                    | 0.85        | 3.19         | 10,627            | 339                        | 9,247         | 5,763              |
| 981.00                    | 0.90        | 3.05         | 14,987            | 457                        | 13,578        | 9,261              |
| 1035.50                   | 0.95        | 2.99         | 18,303            | 547                        | 18,824        | 11,072             |
| <b>1090.00</b>            | <b>1.00</b> | <b>2.91</b>  | <b>22,423</b>     | <b>653</b>                 | <b>25,278</b> | <b>13,425</b>      |
| 1144.50                   | 1.05        | 2.86         | 25,109            | 719                        | 29,871        | 14,557             |
| 1199.00                   | 1.10        | 2.81         | 28,790            | 808                        | 36,399        | 16,528             |
| 1253.50                   | 1.15        | 2.76         | 32,401            | 895                        | 44,365        | 18,400             |
| 1308.00                   | 1.20        | 2.73         | 36,959            | 1,009                      | 56,969        | 21,433             |

## NORTH AMERICAN DOMESTIC MARKET GROUPS



### Thermal Management

- Geothermal
- **Refractories**
- High End Refractories
- Crucibles
- **Hot Metal Toppings**
- **HMF Dispersions**
- Glass



### Engineered Products

- **Processors**
- **Friction**
- Powder Metallurgy
- Graphite Foils
- Fire Retardants
- **Agriculture**
- Ceramics
- Nuclear Graphite
- **MIL-SPEC\***
- Carbon Brush
- Pencil



### Lubricants

- **Grease**
- Food Grade Lubricants
- **Dry Powders**
- **Seed Lubes**
- **Rail Lubes**
- Thread Compounds
- Dispersions
- **MIL-SPEC**
- **Nuclear Grade Lubes**
- **Drilling Fluids**



### Energy Storage

- Alkaline Batteries
- Lead Acid Batteries
- Li-Ion Batteries - Anode
- Li-Ion Batteries - Cathode
- Primary Lithium
- Super-Capacitor
- Fuel Cells
- DOD & DOE
- E-Bikes



### Plastics, Polymers, Rubber

- Conductive Plastics
- Conductive Coatings
- Bushings & Seals
- Antistatic Flooring
- PEEK
- PTFE
- Rubber
- Electronics Packaging
- Thermal Plastics
- Power Generation





# Graphite Development Plan and Indicative Timeline

|                   | ● Year 0   | ● Year 1   | ● Year 2 & 3 (Scale Up) <sup>(1)</sup>   |
|-------------------|--|--|--|
| <b>Technical</b>  | <ul style="list-style-type: none"> <li>&gt; Resource declaration (Q4 2024)</li> <li>&gt; Metallurgy Phase III</li> <li>&gt; Commercial Demo Design &amp; Engineering/Equipment Orders</li> </ul> | <ul style="list-style-type: none"> <li>&gt; Infill drilling of resource to measured &amp; indicated status</li> <li>&gt; Commencement of mine permitting, only state level required, for Kilbourne Graphite</li> </ul> <div style="background-color: #1a3d54; color: white; padding: 5px; text-align: center; margin-top: 10px;">                     Commercial Demo- Start of Production- Customer deliveries                 </div> | <ul style="list-style-type: none"> <li>&gt; FEED/Detailed engineering</li> <li>&gt; Equipment orders</li> <li>&gt; Construction/installation</li> <li>&gt; Permits issued</li> </ul> |
| <b>Commercial</b> | <ul style="list-style-type: none"> <li>&gt; Preliminary product segmentation</li> </ul>  | <ul style="list-style-type: none"> <li>&gt; Preliminary Economic Assessment for 2 phase commercial facility – Phase I – 20,000t and Phase II - 40,000t</li> <li>&gt; Product qualification and offtakes</li> </ul>   | <ul style="list-style-type: none"> <li>&gt; Offtake/product placement</li> </ul>   |
| <b>Financial</b>  | <ul style="list-style-type: none"> <li>&gt; Financed from internal resources</li> </ul>  | <ul style="list-style-type: none"> <li>&gt; Drilling cost</li> <li>&gt; Metallurgical Test-work</li> <li>&gt; Commercial demonstration plant (including working capital)</li> <li>&gt; Study costs</li> <li>&gt; Permitting</li> </ul>   | <ul style="list-style-type: none"> <li>&gt; Construction and Phase I start up cost</li> <li>&gt; Debt Financing process</li> </ul>   |

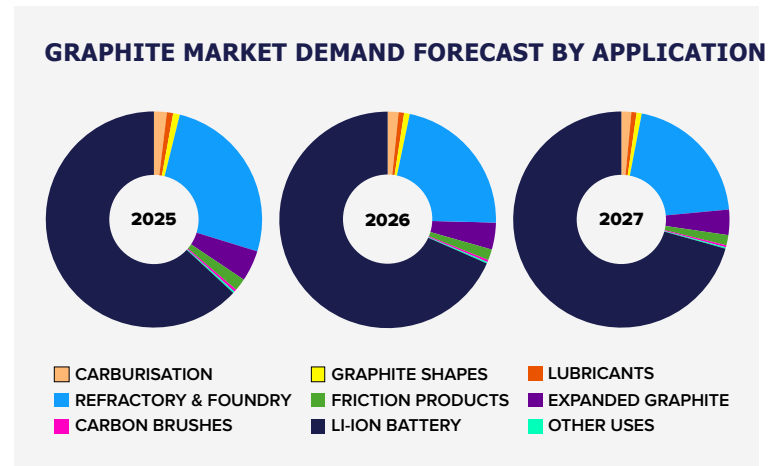
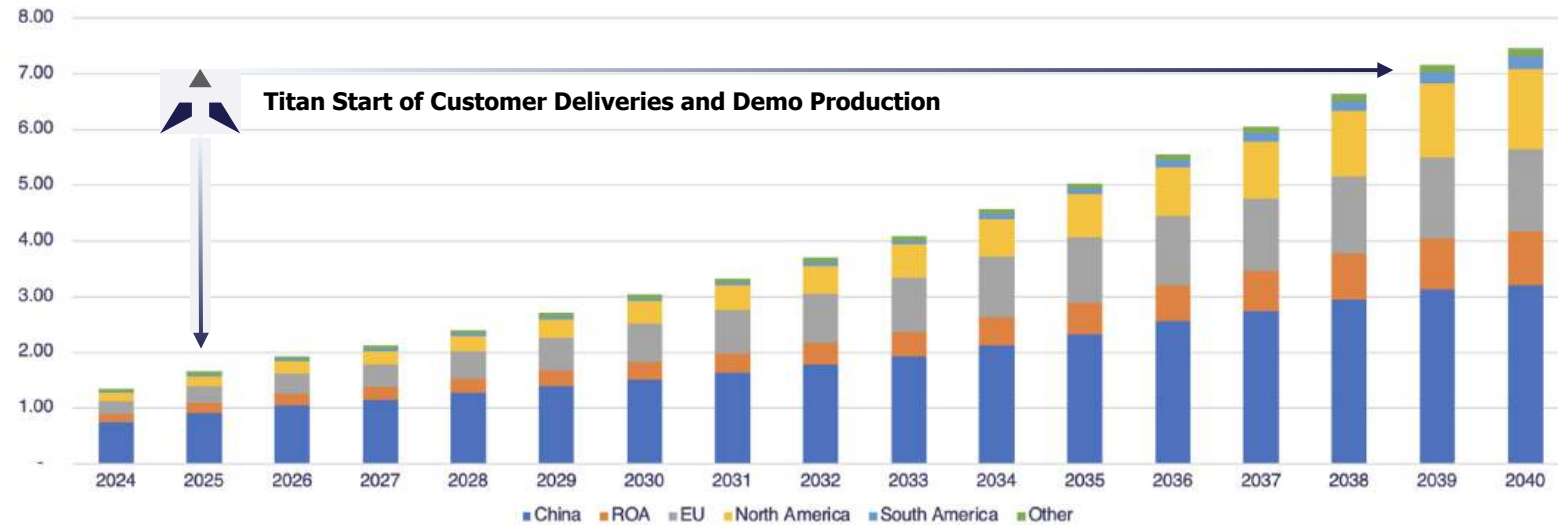
Production Expansion

*(1) Note: Production decision to be based on positive results through the Company's development plan, board approval, and financing*



# Graphite - Demand by Type and Region

NATURAL FLAKE GRAPHITE DEMAND BY GEOGRAPHY (MILLION MT)



- > 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
- > China is expected to control 82% of total supply of graphite by 2030 with other key suppliers being Mozambique and Madagascar
- > Graphite forms part of the critical minerals agenda for the US DoD, DOE and USGS
- > The US imports 100% of the current graphite requirement creating a unique opportunity for Titan to play a key role in delivering to US domestic needs

Sources: Benchmark Minerals, Silverado Policy Accelerator, USGS, DOE and Department of Defense (DLA)



# Short-Term Key Catalysts



1. Subject to funding



# Appendix



# 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





# Our Approach to Sustainability

- > Employees uphold integrity, trust, and commitment to community as well as environmental and social stewardship
- > Projects deliver long-term mutual economic value to employees, communities, governments, and shareholders
- > We minimize environmental, social, and safety impacts through innovative technology
- > A key measure of a success is defined by direct engagement and transparent discussions with the surrounding communities

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

### 1 Community Involvement

- > Promote the economy by hiring and buying locally
- > We partner and invest in workforce training
- > 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

### 2 Environmental and Social Stewardship

- > Mitigate the impacts of our actions to ensure the safety and environmental, well-being of the areas in which we operate
- > Work jointly with communities to create positive, long-term legacies that benefit future generations
- > Minimize environmental footprint through sound management

### 3 Integrity and Trust

- > Open, timely communication with stakeholders
- > Build and reinforce relationships through transparency
- > We back up our commitments with action
- > Fully comply with laws, regulations and permits



**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 D. Warren, P. Eng., G. Methven, P. Eng., D. Malhotra, SME, D. Vatterodt, SME, B. Peacock, P. Eng., and M. Hastings, MAusIMM. Each of the foregoing authors is a Qualified Person as defined by National Instrument 43-101 and is independent of Titan.

The scientific and technical information contained in this presentation relating to the Kilbourne Project was based upon the Company's news release titled 'Titan Mining Announces Maiden Mineral Resource Estimate for 100% Owned Kilbourne Graphite Project at the Empire State Mine' and dated December 3, 2024, which was approved by Todd McCracken of BBA USA Inc. Mr. McCracken is a Qualified Person as defined by National Instrument 43-101 and is independent of Titan.



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