

Investor Presentation

May 2025 | 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 future payable production of zinc, C1 cash costs, AISC, sustaining capital, and exploration capital; all guidance; 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 Mines; timing and results of project expansion, including for N2D and Turmpike; costs, timing and results of future projections; the project expansion, including for N2D and Turmpike; costs, timing and results of future project expansion, including for N2D and Turmpike; costs, timing and results of future project expansion, including for N2D and Turmpike; costs, timing and results of future exploration and development activities at Empire State Mines; timing and results of future exploration and development and development and development and development and project expansion, including for N2D and Turmpike; costs, timing and results of future exploration and results of future exploration and development project expansion, including for N2D and Turmpike; costs, timing and results of future exploration and development production and development production and development production and results of future exploration projected zinc and graphite 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; potential catalysts; the ability to add incremental resources and production it further LOM updates may be released; catalysts for Titan's business; timing of a PEA for Kilbourne; the gr

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 abilitive 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 accuracy of the Company's accounting estimates and judgments; the impact of adoption of new accounting policies; the Company's accounting estimates and evidences; and the mineral resource and permits on favourable terms; obtaining alli

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 and graphite; production projections and cost estimates for ESM #4 mine may prove to be inaccurate; profitability to attract and retain qualified management; title; competition; governmental regulations; market events and general economic conditions; environmental laws and regulations; interesting history; dependence on the company; 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 ou



augustagroup

Track Record of Value Creation

Past Augusta Group Company Returns











2011

0

2014

-O

2017

0

2018

Notes (1) Co-Founded in 2017 (2) Information as of May 5, 2025

2025 Augusta Group Companies⁽²⁾



C\$80M

Market Cap
TSX: TI



C\$96M

Market Cap

TSX: G OTCQB: AUGG

C\$232M

₩IGHLANDER SILVER Market Cap

CSE:HSLV



PROVEN SUCCESS

- Mine development,
 operational excellence & innovation
- 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.

Rita Adiani



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.

Senior Advisor at the Blackstone

companies like Citigroup, Paladin Capital, GAMCO, Rothschild Inc.

Group, an alternative asset

manager, various roles at

William Mulrow

DIRECTOR

and others.



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





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.





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



Capital Structure

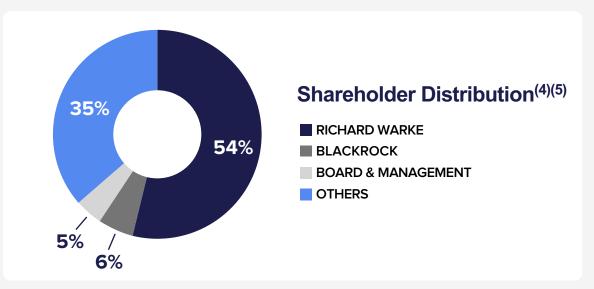
- Optimizing cash flow and focused on deleveraging
- > High insider ownership
- Unique positioning: junior with steady-state cash flow, significant exploration upside and critical metals strategic positioning

CAPITAL STRUCTURE

Toronto Stock Exchange Symbol	ті
Cash Position	US\$10.2 M
Third party short term debt ⁽¹⁾	US\$10 M
Shares Outstanding ⁽²⁾	136.3 M
Fully Diluted Shares Outstanding(12	152.6 M
Market Capitalization ⁽³⁾	C\$80 M

All figures as at December 31, 2024 unless stated otherwise.

- . Third party debt does not include US\$22m owing to related parties
- 6M Warrants, 10M Options
- 3. Market capitalization as of May 5, 2025
- 4. As of May 5, 2025, Bloomberg
- 5. Management excludes Mr. Warke and includes other members of the Titan board and management team







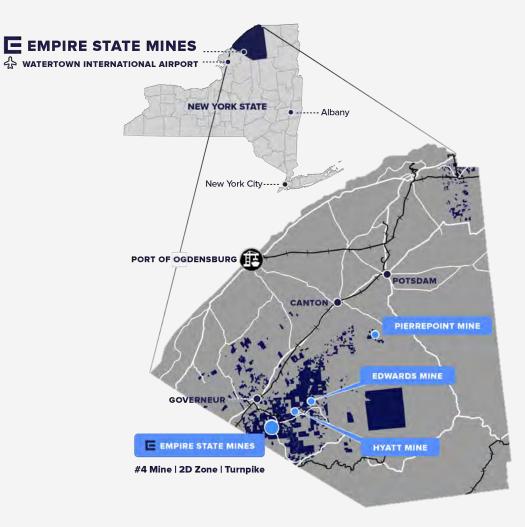
Investment Highlights

- 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
- +120,000 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 fasttracking Kilbourne's potential development to production
- Target to be the first commercial producer of US sourced and processed graphite

>120,000

acres of mineral rights controlled throughout the district



Solid foundations and building for growth



2025 ZINC GUIDANCE AND FY 24- PRODUCTION AND COST

	2025 GUIDANCE	FY 2024
Payable Production Zinc	64-69 m lbs	59.5 m lbs
C1 Cash Cost (1)	\$0.89-\$0.96 per payable lb	\$0.72 per payable lb
AISC ⁽¹⁾	\$0.98-\$1.05 per payable lb	\$0.94 per payable lb
Sustaining Capital	US\$5.5-US\$5.7 million	US\$1.9 million
Exploration Capital	US\$2- US\$2.5 million	US\$1.9 million

C1 Cash Cost and AISC are non-GAAP measures and presented in US dollars.
 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

Zinc

- Achieved top end of production guidance with 59.5 mlbs payable zinc produced in 2024
- 2024 AISC achieved was 10% less than lower end of cost guidance, despite interruptions from Storm Debby
- 2025 Guidance of up to 15% increased production above 2024 Guidance with lower unit costs
- Execution of N2D growth project with H2 2025 benefiting from increased production







Zinc

Near term resource expansion and opportunities to increase production

#4 Mine – mineralized zones plunge to northeast; potential to extend zones up and down-plunge - Underground exploration drilling following up on intercepted mineralization between Mahler and New Fold and expanding Mud Pond Main

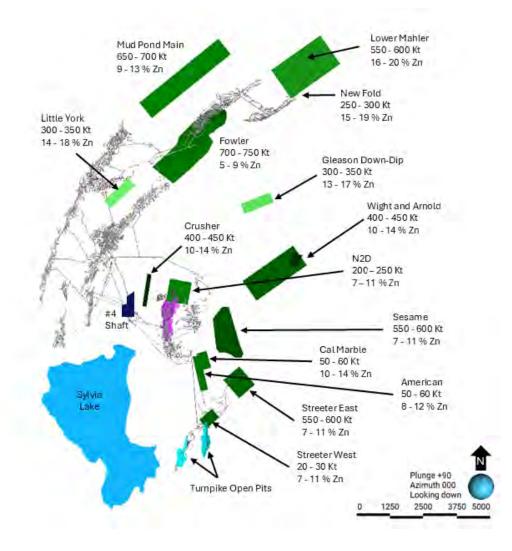
N2D – further down dip potential

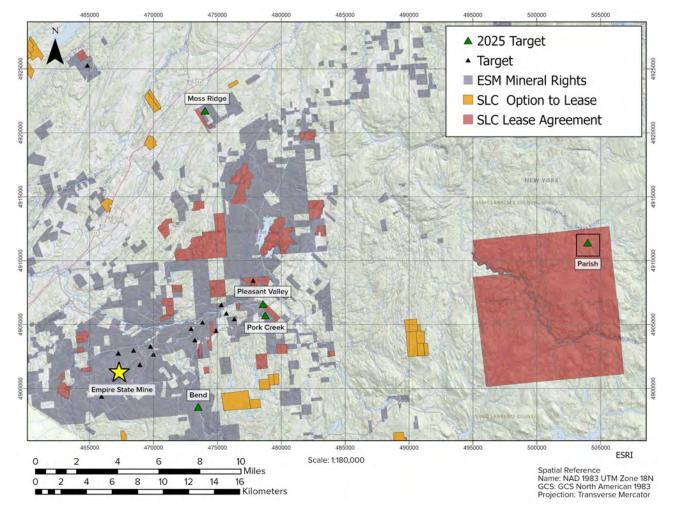
Turnpike – commencing open pit production has the potential to increase project NPV over the life of the zone

Total near mine targets for further exploration target range are estimated to contain between 5.0-5.5 mt of mineralized material at average zinc grades of 10-14%, containing 963 mlbs to 1,525 mlbs of contained zinc

The potential quantity and grade of these exploration targets are based on historic production figures from geologically similar horizons. The potential quantity and grade is conceptual in nature and there has been insufficient exploration to define a mineral resource at these targets. It is uncertain if further exploration will result in these targets being delineated as a mineral resource.

ESM #4 Mine, N2D and Turnpike





Over 40,000 Acres of Mineral Rights added through Strategic Agreement with St. Lawrence County in Q2 2025

BUILT FOR GROWTH



Regional Surface Exploration - Planning

- Drilling Targeting undertested historic Zn mineralization, productive geologic units, and untested Zn anomalies in soil and rock
 - Prioritization of targets within proximity to existing ESM infrastructure
 - Q1 Drilling targeted Pleasant Valley
 - Parish added to target list
 - Historically documented copper sulfides with anomalous gold in recent grab samples
- Surface Geochemical Sampling
 - Goal of +2,000 soil samples in 2025, program planned for Q2/Q3 targeting undertested marbles
 - Water sampling targeting Parish, and areas geologic cover (Pierpont – Colton)
- Continued review of historic data, airborne geophysics, and geology for target generation and land acquisition











UNDERGROUND AS OF JULY 16, 2024

Category	Tons (000's US short tons)	Zn (%)	Contained Pounds (M Lbs)
Measured	295	17.1	101
Indicated	1,158	15.7	364
Measured and Indicated	1,453	16.0	465
Inferred	4,327	12.1	1,049

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 \$1.30/lb, with an assumed zinc recovery of 96.4% 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.

Zinc

Consistent Resource Replacement and Expansion

Continued Growth by the Drill Bit

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

Increased Mine Life

Contained zinc in 2024 MRE (M&I): 465 Mlbs and Inferred: 1,049 Mlbs
Mineralized material, Processed in latest Zinc LOM Plan: 663Mlbs

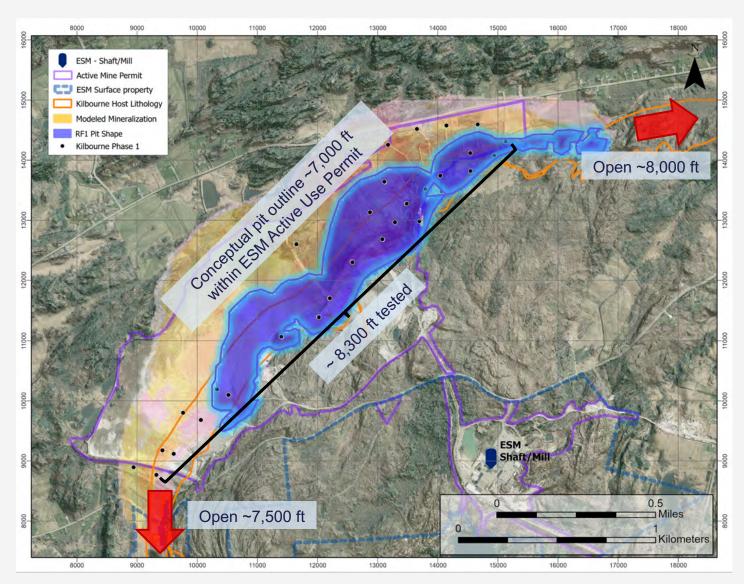
Potential to add to near term production and increase in mine life through drilling of exploration targets



Kilbourne Graphite Maiden Resource

Strengthening the domestic critical minerals supply chain

- Open-pit constrained 43-101 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 mineral 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





Price Sensitivities

- 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 mineral resource upside from minimal pricing increase from sales to engineered products, energy storage and battery products segments
- Further mineral resource expansion through drilling the remaining mineral resource area

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
1090.00	1.00	2.91	22,423	653	25,278	13,425
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



Phase III-SGS⁽¹⁾

	Assays (%)		
Composite	C(t)	C(g)	
Master	3.48	3.14	
North Shallow	3.38	3.21	
South Shallow	3.51	3.28	
North Deep	2.87	2.68	
South deep	3.57	3.25	

Concentrate Size Fraction- Master Composite	Mass %	Assays % C(t) ⁽²⁾
+100 mesh	8.2%	98.1%
+150 mesh	11.7%	98.9%
+200 mesh	26.0%	99.1%
-200 mesh	54.1%	99.2%
Total Concentrate	100%	99.1%

Metallurgy

Process Optimization completed at SGS Lakefield for Master
 Composites and Variability Composites

> Master & Variability Composite Head Grades

- > 118 mineralized intervals from 4 drill holes- 4 variability samples
- Sub-samples of all 118 drill core intervals were combined to produce a Master composite
- > Final master composite test produced final concentrate of 98.8% C(t) and open circuit graphite recovery of 87.3%, 90-91% closed circuit recovery projected

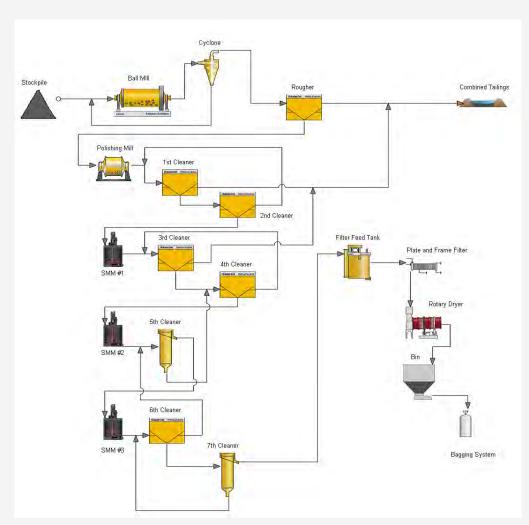
> Flow sheet and size fraction analysis

- Simplified flow sheet developed based on process optimization. Concentrate grades range between 97.6% C(t) for the North Shallow and 99.3% C(t) for the South Deep Composite
- Size fraction analysis demonstrates saleable product and key product group applications with US domestic customer base

^{1.} SFA analysis from Phase III 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.





Simplified Facility Flowsheet

Natural Flake Graphite Processing Facility (the "Facility")

Facility key objectives

- > Product Qualification
- Path to full scale commercialization

Operating Parameters

- > 60,000 tons per annum throughput @ 2.91% Cg grade
- > 85% assumed recoveries (accounting for ramp up), 75% availability
- Concentrate grade 90%+
- > 1,000-2000 tpa concentrate production with modular expansion capability to targeted 40,000tpa

> Key Customer Segments and Forward Planning

- Strategic introduction timelines will be coordinated with the production ramp up and customer qualifications
- Micronized STD Purity (95.0% LOI MIN) and high purity (99.9% LOI MIN) micronized graphite products are anticipated to further enhance both revenues and margins to the company
- Targeted operating margins at 40,000 tpa of 40-45%. Assumed average selling price of US\$2,350/t (includes micronized and HP products)



Kilbourne Product Mix & Sectors

	Key end products	Phase 1- 20,000 tpa	Phase 2- 40,000 tpa
ASTM Mesh Grades	Lubricants, Friction, Refractories, Drilling Fluids	50%	10%
Micronized Flake Graphite Products STD Purity 95.0% LOI MIN	Carbon brush, Lubricants, Friction, Engine Seals, Plastics, Ceramics, MIL-SPEC	25%	40%
Micronized Flake Graphite Products High Purity 99.9% LOI MIN & CSPG	Alkaline Batteries, Powdered Metals, SiC Optics, Polymers, Primary Lithium Batteries, Sic Armor, MIL-SPEC, EV Anode	25%	50%

KEY PRODUCT GROUPS AND SECTORS



Thermal Management

- Refractories
- Foundries
- Hot Metal Toppings



Engineered Products

- Aerospace
- Defense
- Ceramics
- Agriculture MIL-SPEC
- Semis
- SiC Optics
- SiC Armor



Lubricants & Dispersions

- Drilling Fluids
- Automotive
- Agriculture
- Aerospace
- MIL-SPEC
- Dispersions



Plastics, Polymers, Rubber

- Automotive Aerospace
- MIL-SPEC
- Industrial PTFE
- PEEK
- Paint
- Conductive Coatings



Energy Storage

- Consumer Electronics
- · Solid Oxide Fuel Cells
- Secondary CathodePrimary Alkaline
- Coatings
- EV Anode



Graphite Development Plan and Indicative Timeline

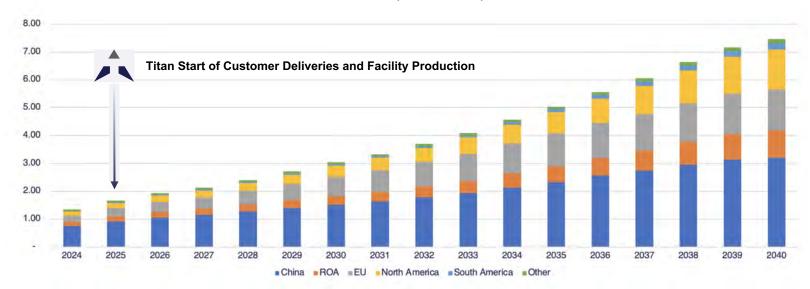
	• Year 0	• Year 1	Year 2 & 3 (Scale Up) ⁽¹⁾	
Technical	 43-101 mineral resource estimate declaration (Q4 2024) Metallurgy Phase III Facility Design & Engineering/Equipment Orders 	 Infill drilling of mineral resource to measured & indicated status Commencement of mine permitting, only state level required, for Kilbourne Graphite Facility Start of Production-Customer deliveries	 FEED/Detailed engineering Equipment orders Construction/installation Permits issued 	Production
Commercial	> Preliminary product segmentation	 Preliminary Economic Assessment for 2 phase commercial facility – Phase I – 20,000t and Phase II - 40,000t Product qualification and offtakes 	> Offtake/product placement	Expansion
Financial	> Financed from internal resources	 Drilling cost Metallurgical Test-work Facility capex (including working capital) Study costs Permitting 	 Construction and Phase I start up cost Debt Financing process 	

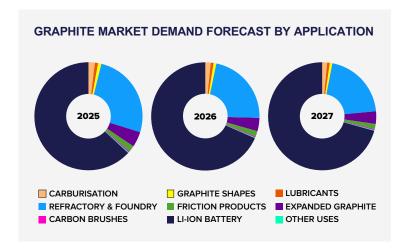
⁽¹⁾ Note: Commercial production decision to be based on positive results through the Company's development plan, board approval, and financing



Graphite - Demand by Type and Region

NATURAL FLAKE GRAPHITE DEMAND BY GEOGRAPHY (MILLION MT)





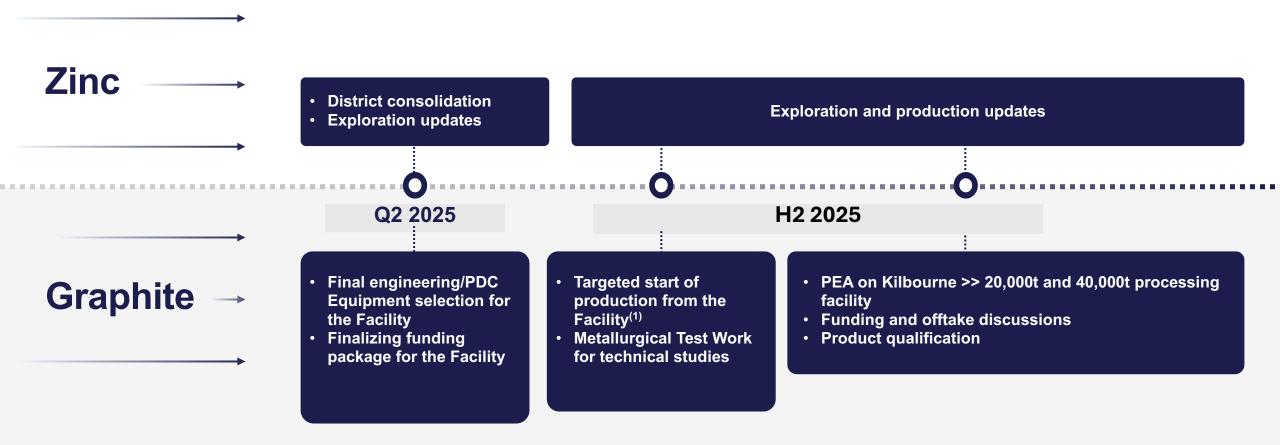
- No domestic commercial producers of natural flake graphite in the U.S
- North American demand projected to grow at CAGR of 15% p.a. Li-On batteries are key driver of demand growth driven by EV growth
- China is expected to control 82% of total supply of graphite by 2030 with other key suppliers being 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

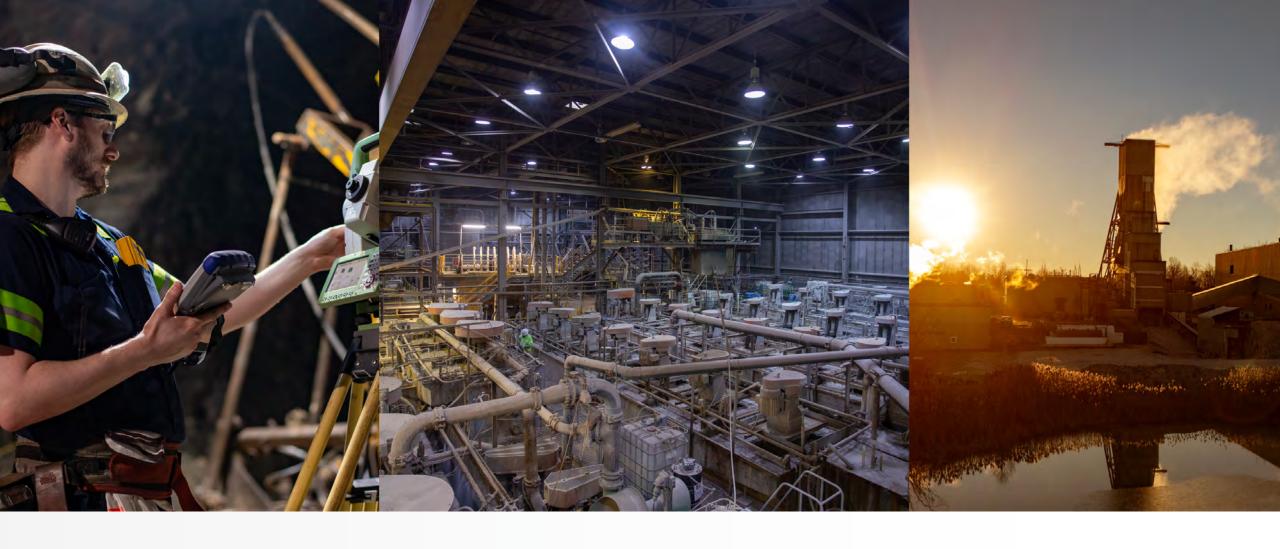
Sources: Benchmark Minerals, Silverado Policy Accelerator, USGS, DOE and Department of Defense (DLA)



Near Term Catalysts

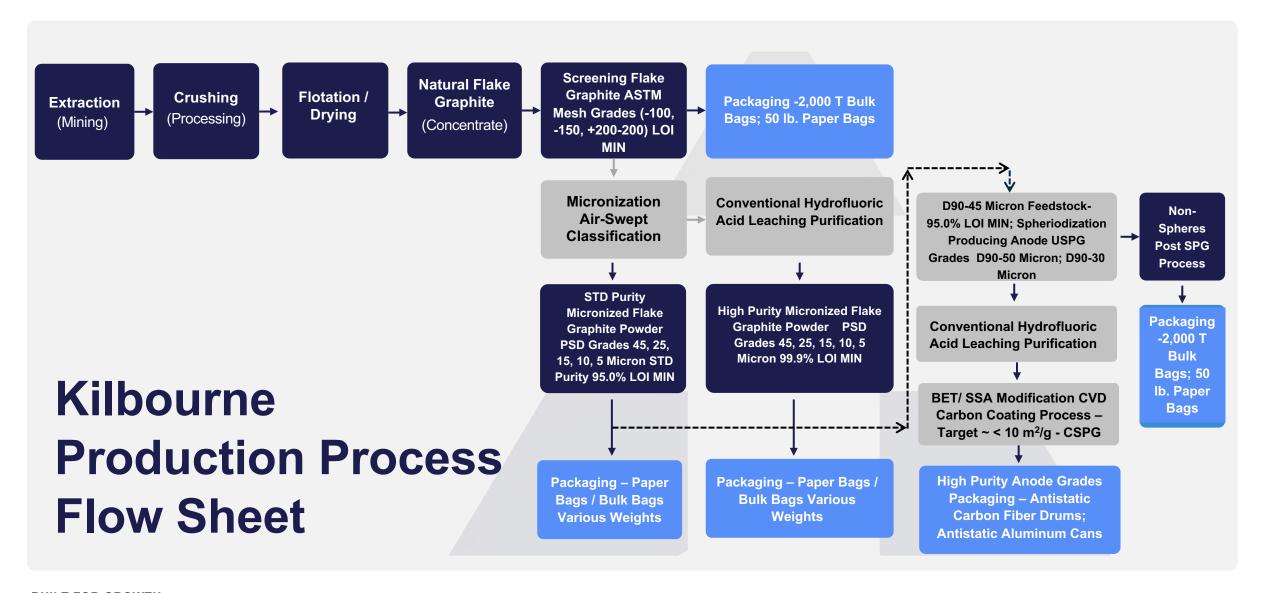


(1) Note: Subject to funding



Appendix







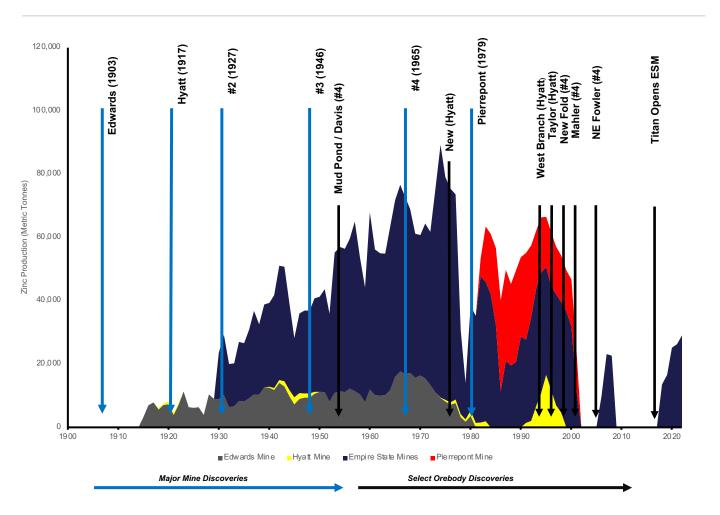
History of exploration success

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





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

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

Environmental and Social Stewardship

- Mitigate the impacts of our actions to ensure the safety and environmental, wellbeing 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

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 the Empire State Mines Zinc operations was based upon the technical report titled "Empire State Mines 2024 NI 43-101 Technical Report Update Gouverneur, New York, USA" (the "ESM Technical Report") which has an effective date of December 3, 2024, and was approved by the following qualified persons: Donald R. Taylor, MSc., PG, Todd McCracken, P. Geo., Deepak Malhotra, P. Eng., and Oliver Peters, MSc, P. Eng., MBA. Mr. Taylor is the Chief Executive Officer of the Company. Messrs McCracken, Malhotra, and Peters are independent of the Company.

The scientific and technical information contained in this presentation relating to the Empire State Mines Kilbourne Project was based upon: 1. the ESM Technical Report; and 2. the Company's press release titled "Titan Mining Announces Phase III Metallurgy Results and Outlines Plans for Natural Flake Graphite Processing Facility in New York State", dated January 16, 2025, which was approved by Oliver Peters of Metpro Management Inc. Mr. Peters is a Qualified Person as defined by National Instrument 43-101 and is independent of Titan.



TSX: TI | BUILT FOR GROWTH

VANCOUVER

Suite 555 - 999 Canada Place Vancouver, BC Canada, V6C 3E1 info@titanminingcorp.com 604-687-1717

NEW YORK

408 Sylvia Lake Rd Gouverneur, New York NY 13642 info@titanminingcorp.com 315-287-2500

VISIT US AT TITANMININGCORP.COM