

TITAN MINING CORPORATION MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE YEAR ENDED DECEMBER 31, 2024 This Management's Discussion and Analysis ("**MD&A**") is intended to help the reader understand Titan Mining Corporation ("**Titan**", "**we**", "**our**" or the "**Company**"), our operations, financial performance, and current and future business environment for the year ended December 31, 2024, and includes events up to the date of this MD&A. This discussion should be read in conjunction with the Company's audited consolidated financial statements for the years ended December 31, 2024 and 2023 (the "Annual Financial Statements") and the related notes thereto and other corporate filings. Unless otherwise specified, all financial information has been derived from the Company's Annual Financial Statements which have been prepared in accordance with IFRS Accounting Standards as issued by the International Accounting Standards Board ("**IFRS**").

Additional information regarding Titan, including the risks related to our business and those that are reasonably likely to affect our financial statements in the future, is contained in our continuous disclosure materials, including our most recent Annual Information Form ("AIF"), consolidated financial statements and Management Information Circular, which are available on the Company's website at <u>www.titanminingcorp.com</u> and under the Company's profile on the SEDAR+ at <u>www.sedarplus.com</u>.

This MD&A is dated March 19, 2025. All dollar amounts reported herein are in US dollars unless otherwise indicated.

# TITAN MINING CORPORATION

Management's Discussion and Analysis (In thousands of US Dollars, unless otherwise indicated)

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# **OUR BUSINESS**

Titan is a natural resource company engaged in the acquisition, exploration, development and production of mineral properties. Our corporate office is in Vancouver, British Columbia, and our shares are listed on the Toronto Stock Exchange under the symbol "TI" and on the OTCQB under the symbol "TIMCF".

The Company's principal asset is a group of 100%-owned, high-grade zinc mines located in the Balmat–Edwards mining district in northern New York State, near Gouverneur and 35 miles south of the Port of Ogdensburg and include the Empire State Mine's #2, #3, #4, Hyatt, Pierrepont and Edwards mines (collectively the "**Empire State Mine**" or "**ESM**"). Titan declared commercial production at ESM on January 1, 2020. The Company also continues to maintain its unpatented mining claims in New Mexico, USA.

# STRATEGY AND OUTLOOK

Titan's mission is to deliver extraordinary shareholder value through exploration, development and operational excellence.

Titan believes that the district surrounding ESM remains underexplored despite the long operating history of the district. The Company is focused on discovering and developing additional high-grade, low-cost mineral resources to feed the mill at ESM. ESM's #4 mine is connected to its #2 mine, and there is potential for significant mineral resource expansion which is expected to support production growth. Other historic mines and new targets within the district are a focus for Titan's exploration team.

Titan management and Board have approved a plan and commenced acquisition of the necessary equipment to recommence mining in the N2D Zone ("**N2D**") area. The area is fully developed enabling the Company to ramp up production quickly. N2D is estimated to add approximately 12 million payable zinc pounds per annum. ESM has provided 2025 production guidance of between 75 - 81 million zinc recoverable pounds or 64 - 69 million zinc payable pounds. ESM continues to review ways to increase operating efficiencies, particularly by adding incremental ore feed from other historically mined zones outside of the current #4 mine. See the Company's news release dated February 19, 2025, for further detail on production and cost guidance.

The Company has also outlined parameters of a processing facility for Kilbourne natural graphite mineralized material (the "**Facility**"), to be co-located with the Company's existing zinc operations at ESM. The Company is targeting production from the Facility in 2025. The Facility is the first step towards obtaining product at full run time which will allow ESM to establish customer demand and pricing thresholds. See the Company's news release dated January 16, 2025, for further detail regarding the Facility.

In addition, the Company continues to examine various financing options to advance further development at ESM and bolster the Company's treasury.

(In thousands of US Dollars, unless otherwise indicated)

# FINANCIAL AND OPERATIONAL SUMMARY

	T	hree mo	nth	s ended E	Ye	ar ended D	mber 31,			
Financial Performance		2024		2023	Change	2024		2023		Change
Net income (loss) before tax Operating cash inflow	\$	11,596	\$	(6,959)	\$ 18,555	\$ 6,717	\$	(10,196)	\$	16,913
(outflow) before changes in non-cash working capital	\$	10,900	\$	(1,363)	\$ 12,263	\$ 16,4654	\$	6,085	\$	10,380

Financial Condition	December	31, 2024	December 31, 2023			
Cash and cash equivalents	\$	10,163	\$	5,031		
Working capital	\$	(12,581)	\$	(23,512)		
Total assets	\$	55,148	\$	52,762		
Equity (Deficit)	\$	3,003	\$	(2,270)		

Three months ended December 31,

Year ended December 31,

Operating Data	2024	2023	Change	2024	2023	Change
Payable zinc produced						
(mlbs)	21.7	13.9	7.8	59.6	61.0	(1.5)
Payable zinc sold (mlbs)	22.3	13.9	8.4	59.7	62.0	(2.3)
Average provisional zinc	\$ 1.38	\$ 1.13	\$ 0.25	\$ 1.23	\$ 1.19	\$ 0.09
price (per lb)						

# HIGHLIGHTS

Significant events and operating highlights for the three months ended December 31, 2024 and up to the date of this MD&A include the following:

- Zero Lost Time Injuries in the fourth quarter.
- Produced 21.7 million pounds of payable zinc in the fourth quarter of 2024 an increase of 56% from the same quarter in the prior year.
- Revenues of \$26,327 in the fourth quarter of 2024, an increase of \$18,053 from Q3 2024 and \$15,416 from the fourth quarter in the prior year.
- AISC of \$0.86 for the fourth quarter of 2024 (Q4 2023 \$1.17), and AISC of \$0.94 for the full year 2024 (FY 2023 \$1.08)
- Completion of an updated mineral resource estimate and extended mine life for ESM's zinc operations until 2033, reporting a 22% increase in measured and indicated contained pounds of zinc compared to the Company's 2020 zinc Mineral Resource estimate.
- Completion of its maiden mineral resource estimate ("MRE") for the Kilbourne Graphite Project, resulting in an open-pit constrained inferred mineral resource estimate of 22 million US short tons at an average grade of 2.91% (Cg) containing 653,000 tons of graphite, based on a cut-off grade of 1.50%.
- An aggregate of US\$22 million principal repaid on the Company's credit facility with National Bank of Canada.

# TITAN MINING CORPORATION

# **Management's Discussion and Analysis**

(In thousands of US Dollars, unless otherwise indicated)

			20	24		
		FY (2)	Q4	Q3	Q2	Q1
Production						
Ore mined	tons	406,541	141,820	58,353	95,575	110,795
Ore milled	tons	410,867	147,393	57,011	95,762	110,703
Feed grade	zn%	8.8	9.0	8.6	9.1	8.1
Recovery	%	96.4	96.4	96.3	96.5	96.2
Payable zinc	mlbs	59.5	21.7	8.3	14.8	14.7
Concentrate grade	zn %	60.0	60.0	59.8	60.1	59.9
Zinc concentrate produced	tons	58,317	21,850	7,920	14,155	14,392
Sales						
Payable zinc	mlbs	59.6	22.3	8.2	14.7	14.4
Average provisional zinc price	\$/lb	\$1.23	\$1.28	\$1.27	\$1.30	\$1.11
C1 cash cost per payable zinc pound sold <sup>(1)</sup>	\$/Ib	\$0.91	\$0.81	\$1.32	\$0.79	\$0.97
Sustaining capital expenditures <sup>(1)</sup>	\$/lb	\$0.03	\$0.05	\$0.03	\$0.00	\$0.03
AISC <sup>(1)</sup>	\$/lb	\$0.94	\$0.86	\$1.35	\$0.79	\$1.00

			2	023		
		FY (2)	Q4	Q3	Q2	Q1
Production						
Ore mined	tons	444,588	108,962	108,210	112,528	114,888
Ore milled	tons	445,803	109,258	110,202	112,082	114,261
Feed grade	zn%	8.4	7.8	10.1	8.1	7.4
Recovery	%	96.3	96.2	96.3	96.3	96.1
Payable zinc	mlbs	61.0	13.9	18.3	15.0	13.8
Concentrate grade	zn %	59.6	59.2	60.3	59.8	59
Zinc concentrate produced	tons	60,123	13,756	17,855	14,727	13,785
Sales						
Payable zinc	mlbs	62.0	13.9	18.3	15.0	14.8
Average provisional zinc price	\$/lb	\$1.19	\$1.13	\$ 1.10	\$ 1.15	\$ 1.42
C1 cash cost per payable zinc pound sold <sup>(1)</sup>	\$/Ib	\$1.05	\$1.16	\$ 0.84	\$ 1.05	\$ 1.23
Sustaining capital expenditures <sup>(1)</sup>		\$0.03	\$0.01	\$ 0.02	\$ 0.07	\$ 0.03
AISC <sup>(1)</sup>	\$/lb	\$1.08	\$1.17	\$ 0.86	\$ 1.12	\$ 1.26

<sup>(1)</sup> C1 cash cost, Sustaining Capital Expenditures, and All-In Sustaining Cost ("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. These financial measures have been calculated on a basis consistent with historical periods. Information explaining these non-GAAP measures is provided below, under "Non-GAAP Performance Measures". <sup>(2)</sup> The full-year figure may not equal the sum of the quarters due to rounding.

# **OPERATIONS REVIEW**

Mining in the fourth quarter of 2024 focused on the Mahler, New Fold, and Mud Pond zones. Deepening of the lower Mahler ramp system provided access to high-grade ore in the Lower Mahler mining zone that supported higher than budgeted grades. Longhole stope mining in New Fold provided above-target grades and tons. Mining will continue in these key same zones during the first quarter of 2025.

While crushing and hoisting activities were halted from August 12, 2024 to September 26, 2024, mining activities continued and ore was stockpiled in the underground. Ore tons that were stockpiled in Q3 2024, during the rehabilitation of the crusher, were hoisted and milled in Q4 2024. This significantly contributed to higher tons and zinc metal produced in Q4 2024. With the excess capacity in the mill, the Company was able to meet full year guidance.

Work on projects in the fourth quarter of 2024 focused mainly on completion of an updated NI 43-101 technical report which was released in January 2025 (the "**2025 Technical Report**"), a power upgrade in the Mahler mining zone, and final work on the crusher recovery project.

# ESM Mineral Resource Estimate Update and Extended Life of Mine

On January 15, 2025, the Company filed the 2025 Technical Report with respect to the Company's Empire State Mine, providing an updated mineral resource estimate and extended mine life for its ESM zinc operation. The regional and near mine exploration plans cover ESM's 80,000 acres of controlled mineral rights in upstate New York and targe multiple high quality, near mine and district scale targets with potential to increase near term production and further extended mine life.

Highlights of the 2025 Technical Report, include the following:

- Increase in measured & indicated contained pounds of zinc by 22% as compared to Titan's 2020 zinc mineral resource estimate (net of depletions)
- Updated base case life of mine plan with extended life of mine until 2033
- The updated life of mine plan (the "Zinc LOM Plan") provides total recoverable zinc of 636 million pounds and payable zinc production of 541 million pounds.
- Established operating base with 5,000 tpd mill and 130+ employee workforce in a Tier 1 jurisdiction
- 40,000 ft of near mine underground drilling planned in 2025 adjacent to existing mining areas. 31,000 ft of surface exploration drilling also planned for 2025 with 13,000 ft in near mine drilling and 18,000 ft in regional surface drilling
- The 100+ year track record at ESM of converting near-mine exploration targets into production suggests the Company's exploration program has the potential to continue adding incremental production in the near term
- The surface exploration drilling comprises fifteen drill ready targets. Of these, eleven are within the historic Balmat (ESM) Pierrepont trend
- Total near mine targets for further exploration are estimated to contain between 4.8mt-5.3mt of mineralized material at average zinc grades of 10-14%, containing 935 mlbs to 1,470 mlbs of contained zinc

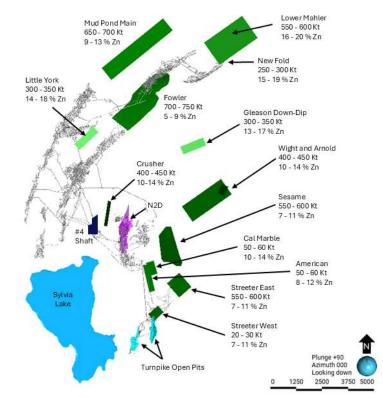
# **Opportunities - Near Term Increase in Production and District Scale Potential**

Titan management and Board have approved a plan and commenced acquisition of the necessary equipment to recommence mining in N2D. The area is fully developed enabling the Company to ramp up production quickly. N2D is estimated to add approximately 12 million payable zinc pounds per annum. The opportunity at N2D is contemplated in the 2025 Technical Report. ESM has provided 2025 production guidance of between 75 - 81 million zinc recoverable pounds or 64 - 69 million zinc payable pounds.

Titan is also assessing a near term production increase opportunity at Turnpike. Commencement of open pit mining at Turnpike could increase near term production, cash flows and project NPV over the life of the zones. Near mine exploration targets provide opportunities for mineral resource expansion that could increase mine life and are summarized in Figure 1 below.

# TITAN MINING CORPORATION

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# Figure 1- Near mine exploration and production opportunity targets

Targets for exploration drilling can be broken into three categories, near mine, within the Balmat (ESM #1-#4) - Pierrepont trend, and within the greater district. Figure 1 shows the current near mine drill targets.

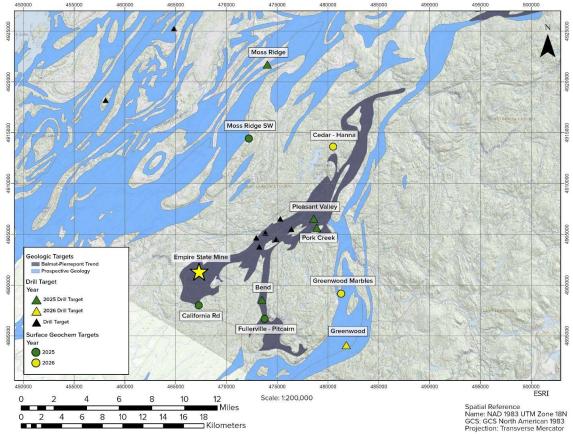
In 2025, near mine exploration is expected to expand the Mahler, Mud Pond Main and New Fold zones with planned underground drilling totaling 40,000 ft and test Arnold Pit/Wight, Streeter East, Streeter West, and Little York with planned surface drilling totaling 13,000 ft.

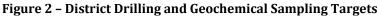
Total near mine targets for further exploration are estimated to contain between 4.8mt-5.3mt of mineralized material at average zinc grades of 10-14%, containing 935 Mlbs to 1,470 Mlbs of contained zinc, providing significant potential to increase mine life. The potential quantity and grade of these 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.

In addition to the near mine targets, the Company has developed an additional fifteen drill ready targets. Of these, eleven are within the historic Balmat (ESM) – Pierrepont trend. Targeting has focused on: the extension of historic mineralized intercepts with room down dip, and along strike to accommodate a significant body of mineralization; testing historically productive stratigraphic units; and testing down dip from surficial zinc anomalies. Targets for the 2025 in trend drill program include Pleasant Valley, Pork Creek, and Bend (See Figure 2 below).

There are currently four drill ready targets within the district. These target: the down dip extensions of zinc anomalies identified through surface geochemical sampling; stratigraphy with known past base metal production; and conceptual geologic and geophysical targets. The Company currently has 18,000 ft planned to test targets within the trend and district. The primary district drill target for 2025 is Moss Ridge.

In addition to the 71,000 ft planned for the 2025 drill programs, the Company plans on collecting greater than 2,000 soil samples annually from its existing and future mineral tenure. This program will begin targeting historically productive stratigraphic units within the trend, and historic geochemical samples (rock and soil) with elevated Zn recorded. The Company's 2022 soil program led to the development of the Pork Creek, and Moss Ridge drill targets.





# **EXPLORATION UPDATE**

#### **Empire State Mine**

#### Historic Data

The review, compilation, digitization, and modelling of historic data collected over approximately 100 years by the previous operators of ESM continues to contribute to the exploration success at ESM, with several near-mine mineralized zones identified, including the N2D zone and Turnpike.

Titan's exploration team has continued to generate additional near-mine and district targets using historic soil, stream sediment, drilling, and geophysical data. These historic data sets are also being utilized to identify additional near-surface mineralization in the vicinity of the other historic mining areas (Hyatt, Pierrepont, Edwards, and Rossie-Macomb), which were being prioritized for drill testing in 2024 and 2025. The team continues to research and consolidate mineral rights interests in high priority target areas.

In addition to zinc and base metal occurrences the Company has identified multiple areas with historic documentation of graphite bearing lithologies in St. Lawrence County. This review has helped identify graphite targets within ESM's mineral rights.

# 2024 Drill Programs

### Underground:

Underground drill programs in 2024 targeted Fowler, Mahler, Mud Pond, and New Fold. Underground drilling totalled 44 drill holes and 17,058 ft (5,199 m). Of these 21 holes were completed in the fourth quarter of 2024 totalling 7,027 ft (2,142 m). Fourth quarter drilling targeted Lower Mahler, Mud Pond and New Fold. All underground drilling was completed with Company-owned underground drills by Company employees. Of the drilling in the fourth quarter, 2,293 ft (698.9 m) testing exploration targets was completed. With one exploration hole completed testing prospective areas within proximity to New Fold – Mahler. An exploration hole targeting down dip extensions of Mud Pond began in December 2024, with 1,196 ft (364.5 m) completed at the end of the fourth quarter. Additionally, drilling on three utility holes totalled 597ft (324 m).

# Surface:

Surface programs targeting zinc mineralization were carried out in the third and fourth quarters of 2024, with 3 holes being completed totalling 1,873 ft (570.9 m). This drilling targeted the open up-dip extensions of the historic Gleason ore body. All three holes were completed in the fourth quarter totalling 1,304 ft (397.5 m) drilled. All drilling was completed with Company owned surface equipment by Company employees.

### Kilbourne

The Company's 100% owned Kilbourne Graphite Project is located within the active use permit of the Company's ESM #4 mine. In December 2024, the Company announced a maiden inferred mineral resource estimate of 22 million US short tons, at an average grade of 2.91% graphitic carbon (Cg), based on a cut-off grade of 1.5% Cg. A total of 39 diamond drill holes were completed on the property between the fourth quarter of 2023 and the second quarter of 2024, totalling 11,916 ft (3,362 m) drilled. Testing roughly 8,300 ft (2,530 m) of Unit 2 (the Kilbourne host lithology) strike length within the Company's permitted surface ownership.

Surface mapping, supported by historic drill logs, suggests an additional ~8,000 ft (2,438 m) of open strike length to the east, and ~7,500 ft (2,286 m) of open strike length to the south. The mapped historic extents of Unit 2 are within the Company's owned mineral rights package.

During the fourth quarter of 2024 the Company began Phase III of metallurgical test work on graphitic material from the Kilbourne project (*See the Company's press release* "Titan Mining Announces Phase III Metallurgy Results and Outlines Plans for Natural Flake Graphite Processing Facility in New York State" *dated January*, *16<sup>th</sup> 2025*). Samples representing 118 mineralized intercepts from four drill holes (KX23-001, KX24-002, KX24-003, and KX24-004) were used in the process optimization program. The material was used to generate four variability samples representing the upper "shallow" and lower "deep" zones of mineralization from the north (KX23-001 & KX24-002) and the south (KX24-003 & KX24-004). Sub-samples from all four variability samples were combined into a master composite. Results from these variability tests are below.

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 3.57 3.25 South Deep

Table 1: Head Grades of Master and Variability Composites

The optimization program produced a flowsheet capable of producing a 98.8% C(t) concentrate from the master composite, with a recovery of 87.3%, graphite recovery is projected to increase to 90-91% in a closed-circuit. The four variability samples were run through the same optimized flowsheet and produced results in line with the Master composite. This demonstrates the consistent metallurgical performance of the Kilbourne graphitic material, and the robustness of the proposed flowsheet. The size fraction analysis of the Master and variability samples can be seen below.

Table 2: Size Fraction Analysis of Final Concentrate of the Master and Variability Composites

Product Size	Mas	ster	North S	North Shallow		North Deep		hallow	South Deep		
(Mesh)	Mass (%)	% C(t)	Mass (%)	% C(t)	Mass (%)	% C(t)	Mass (%)	% C(t)	Mass (%)	% C(t)	
100	8.2	98.1	2.2	95.1	8.3	96.9	3.8	96.5	9.2	97.4	
150	11.7	98.9	6.9	97.9	12.4	99.2	9.5	99.7	10.1	99.4	
200	26.0	99.1	22.7	97.8	24.3	99.0	24.2	98.2	22.1	99.3	
-200	54.1	99.2	68.2	97.7	55.1	99.1	62.5	98.6	58.6	99.3	

With the positive metallurgical results of Phase III, Titan is in the final phases of completing engineering for a commercial demonstration plant (the "Facility"). The Facility is expected to produce 1,000-1,200t per annum of graphite concentrate and aims for modular expansion to baseline production of 40,000t per annum with further growth capability. The Facility will be fed Kilbourne mineralized material and will be co-located in the ESM mill area. It will benefit from leveraging personnel and infrastructure from the existing zinc ESM mill operations thereby reducing capital and operating costs. The Company is targeting production from the Facility in 2025. The Facility is the first step towards obtaining product at full run time which will allow ESM to establish customer demand and pricing thresholds. Construction of the Facility is recommended in the 2025 Technical Report.

# New Mexico

The Company began prospecting for base metals in an area of New Mexico in 2017. In 2018, the Company completed the first phase of its drilling program and was encouraged by the results. Annual claim maintenance fees have been renewed since allowing the Company to maintain control of the current land position while evaluating future exploration activities.

### **TREND ANALYSIS**

#### **Selected Quarterly Information**

			2024				2023		
	Q4	Q3	Q2	Q1		Q4	Q3	Q2	Q1
Revenues (\$)	26,327	8,274	17,969	11,731	-	10,911	15,481	8,952	16,742
Net income (loss) (\$)	11,596	(4,864)	2,617	(2,632)		(6,959)	501	(4,841)	1,103
Basic & diluted income (loss) per									
share (\$)	0.08	(0.04)	0.02	(0.02)		(0.05)	-	(0.03)	0.01
Cash and cash equivalents (\$)	10,163	5,844	5,547	4,176		5,031	4,319	2,895	7,411
Total assets (\$)	55,148	50,290	52,386	49,813		52,762	59,060	59,591	67,916
Total liabilities (\$)	52,145	57,535	55,194	56,021		55,032	55,528	56,513	58,953

# **FINANCIAL REVIEW**

#### **Financial Results**

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(\$000's)	 nths ended cember 31,	Year ended cember 31,
<b>Net income (loss) for the 2023 period</b> Changes in components of income:	\$ (6,959)	\$ (10,196)
Revenues increase (decrease)	15,416	12,215
Cost of sales decrease (increase)	745	8,148
Other expenses decrease (increase)	2,394	(3,450)
Net income (loss) for the 2024 period	\$ 11,596	\$ 6,717

During the year ended December 31, 2024, revenues increased compared to the same period in 2023 largely as a result of lower treatment charges (2024 - \$8,188 vs. 2023 - \$14,567), a lower negative rollback credit (2024 – negative \$1,902 vs. 2023 – negative \$2,645), and lower negative provisional and final pricing adjustments (2024 – negative \$456 vs. 2023 – negative \$3,444). While the Company had slightly lower zinc concentrate sales (2024 – 59.7 mlbs vs. 2023 – 62.0 mlbs), this was mostly offset by a higher average provisional price (2024 - \$1.23/lb vs. 2023 - \$1.19/lb).

During the year ended December 31, 2024, cost of sales decreased compared to the same period in 2023 as a result of lower operating costs due to lower tons milled (2024 – 410,867 tons vs. 2023 – 425,022), lower tons mined (2024 – 406,541 vs. 2023 – 419,104), in addition to lower depreciation incurred in 2024 compared to 2023.

During the year ended December 31, 2024, other expenses increased compared to the same period in 2023, largely a result of a realized gain on derivative that was incurred in 2023 and was not incurred in 2024.

Kevenue	 Three n	iont	hs ended I	Dece	mber 31,	Years ended Decem					mber 31,
(\$000's)	2024		2023		Change		2024		2023		Change
Zinc concentrate sales	\$ 30,724	\$	15,637	\$	15,087	\$	76,322	\$	74,070	\$	2,252
Zinc concentrate provisional											
pricing adjustments	(78)		(493)		415		(456)		(3,444)		2,988
Smelting and refining charges	(4,319)		(4,233)		(86)		(11,565)		(18,540)		6,975
Revenue, net	\$ 26,327	\$	10,911	\$	15,416	\$	64,301	\$	52,086	\$	12,215

Zinc concentrate pricing consists of provisional and final pricing adjustments made prior to the finalization of the sales contract. In June 2024, the Company entered into a fixed zinc pricing arrangement pursuant to its existing offtake agreement with an affiliate of Glencore Ltd. for approximately 30% of the Company's budgeted zinc production for the second half of 2024. The arrangement fixed the zinc price for a six-month period covering July 2024 through December 2024 at a price of US\$1.37 per pound of zinc. As of December 31, 2024, the Company had fulfilled its commitment under the fixed price zinc pricing arrangement.

In connection with the fixed zinc pricing arrangement, the Company was required to provide a cash deposit in the amount of \$2,777. The cash deposit was returned to the Company on a prorata basis, upon completion of the delivery of zinc concentrate on a monthly basis over the six-month period of the fixed price arrangement. As the Company had fulfilled its commitment under the fixed zinc pricing arrangement by December 31, 2024, the remaining balance of the cash deposit of \$518, was returned to the Company in January 2025.

Revenues were significantly higher in Q4 2024 when compared to the same quarter in the prior year as a result of the build up of ore stockpiled at the end of Q3 2024, as mining activities continued while the operations at ESM were temporarily shut down as a result of Tropical Storm Debby. Ore tons that were stockpiled in Q3 2024 were hoisted and milled in Q4 2024, which contributed to significantly higher tons and zinc metal produced in Q4 2024.

	 Three mo	onth	s ended D	ece	Y	Year ended December 31,					
(\$000's)	2024		2023		Change		2024		2023		Change
Operating expenses	\$ 11,516	\$	10,949	\$	567	\$	39,155	\$	41,809	\$	(2,654)
Transportation costs	1,215		810		405		3,357		3,618		(261)
Royalties	8		7		1		34		38		(4)
Depreciation and depletion	1,204		3,832		(2,628)		8,728		12,889		(4,161)
Change of Inventory	928		17		911		241		1,309		(1,068)
Total	\$ 14,871	\$	15,615	\$	744	\$	51,515	\$	59,663	\$	(8,148)

# **Cost of sales**

During the year ended December 31, 2024, cost of sales decreased compared to the same period in the prior year due to a decline in tons mined and milled and efficient management of site costs. Operating expenses during the three months ended December 31, 2024, compared to the same period in the prior year increased as a result of an increase in tons milled during Q4 2024 compared to the same quarter in the prior year. Depreciation and depletion expenses decreased during the year ended December 31, 2024 compared to the prior year due to lower tons mined, and a decrease in capital asset acquisitions. Depreciation and depletion expenses during the three months ended December 31, 2024, decreased compared to the same period in the prior year, as a result of the Company's change in mineral resource assumption which increased the reserve base over which unit of production assets will be depreciated. The change in the mineral reserve assumption was a direct result of the Company's updated mineral resource estimate at the Company's ESM operations included in the 2025 Technical Report. The change of inventory is a result of the ending inventory level changes due to timing differences of sales of zinc concentrate.

The impact of inflation on the Company's financial position, operational performance, or cash flows over the next twelve months cannot be determined with any degree of certainty.

# TITAN MINING CORPORATION

**Management's Discussion and Analysis** 

(In thousands of US Dollars, unless otherwise indicated)

#### Other operating expenses

		Th	ree mont	ths e	nded Decen	nber 31,		Years	ended Decem	ber 31,
	 2024		2023		Change	%	2024	2023	Change	%
G&A expenses:										
Salaries and benefits	\$ 654	\$	223	\$	431	>100	1,575	1,244	331	26
Share-based compensation	81		58		23	40	420	351	69	16
Professional fees	322		371		(50)	(100)	677	1,934	(1,257)	(65)
Office and administration	353		135		218	>100	918	729	189	26
Investor relations	31		9		22	>100	59	52	7	13
	\$ 1,441	\$	796	\$	645	81	3,649	4,310	(661)	(15)
Exploration and evaluation										
("E&E") expenses:										
Salaries and benefits	\$ 178	\$	172	\$	6	3	767	584	183	31
Assay and analyses	31		17		14	82	193	158	35	22
Contractors and consultants	135		73		62	85	451	880	(429)	(48)
Supplies	21		18		3	17	236	53	183	>100
Other	136		103		33	32	214	228	(10)	(4)
	\$ 501	\$	383	\$	118	31	1,861	1,903	(38)	(2)

G&A expenses for the year ended December 31, 2024 compared to the prior year, decreased largely as a result of lower professional fees incurred, partially offset by an increase in salaries and benefits resulting from an increase in head count at the Company's corporate office, in addition to an increase in the Company's short-term incentive bonus plan that was accrued for in Q4 2024 compared to Q4 2023. G&A expenses increased in Q4 2024 compared to the same quarter in the prior year, as a result of an increase in salaries and benefits due to an increase in head count at the Company's corporate office, in addition to an increase in the Company's short-term incentive bonus the same quarter in the prior year, as a result of an increase in salaries and benefits due to an increase in head count at the Company's corporate office, in addition to an increase in the Company's short-term incentive bonus plan that was accrued for in Q4 2024 compared to Q4 2023.

E&E expenses for the year ended December 31, 2024 remained relatively consistent year over year.

#### **Other expenses (income)**

	Three mo	nths endeo	l December	31,	Years ended December 31,						
	2024	2023	Change	%	2024	2023	Change	%			
_	\$(2,109)	\$1,078	\$ (1,031)	>100	\$462	\$ (3,670)	\$ 4,132	>(100)			

For the three months ended December 31, 2024, other expenses (income) increased from the same period in the prior year as a result of a gain recognized on a change in estimate of the Company's reclamation and remediation provision as well as a foreign exchange gain, compared to a foreign exchange loss recognized in the prior year. For the years ended December 31, 2024 compared to the prior year, other expenses increased from other income recognized in the prior year, largely as a result of the realized gain on a derivative that was incurred in 2023, and no similar gain was incurred in 2024, as the Company did not have any hedge agreements resulting in derivative gains or losses during the year, partially offset by a gain recognized on a change in estimate of the Company's reclamation and remediation provision.

# LIQUIDITY AND CAPITAL RESOURCES

# Debt

# Credit Facility - National Bank of Canada

On June 6, 2022, the Company entered into a secured credit facility agreement for \$40,000 (the "Credit Facility") with National Bank of Canada ("NBC"). The Credit Facility is secured by a general charge on the assets of the Company and was initially available to the Company on a revolving basis to finance the working capital and general corporate requirements. Terms of the Credit Facility include the following:

- The Credit Facility bears interest at the Secured Overnight Financing Rate ("SOFR") plus 2.25% or National Bank's base rate plus 1.25%.
- The original maturity date was December 6, 2023 and included an annual extension option. The maturity date has been subsequently amended, most recently on December 9, 2024, which extended the previously amended maturity date of June 30, 2025 to December 31, 2025.

The Credit Facility is subject to certain financial covenants, which initially included an interest coverage ratio of not less than 4.0 to 1.0 and a total leverage ratio of not more than 3.0 to 1.0. These financial covenants have been subsequently amended, with current financial covenants including an interest coverage ratio of not less than 1.5 to 1.0, and an unrestricted cash balance of not less than \$1,000. As of December 31, 2024, the Company was in compliance with all covenants related to the Credit Facility.

During 2024, the Company entered into several amendments to its Credit Facility. In February 2024, a principal payment of \$5,000 reduced the available credit limit from \$32,170 to \$27,170. In April 2024, a further amendment was executed, whereby, the previously imposed leverage ratio of 3.0 to 1.0 was removed and the interest coverage ratio was reduced to its current requirement of 1.5 to 1.0 (as noted above). Additionally, the Company agreed to make repayments on the Credit Facility to reduce the available credit to \$15,170 by June 30, 2024 by way of a \$10,000 principal payment made in April 2024, and a \$2,000 principal payment on June 30, 2024, with a further reduction to the available credit limit to \$10,170 by December 31, 2024, by way of another principal payment of \$5,000 on or before December 31, 2024.

On December 9, 2024, the Company entered into its most recent amendment to the Credit Facility, which extended the maturity date of the Credit Facility from June 30, 2025 to December 31, 2025, and provided a revised repayment schedule which included \$5,000 due before June 30, 2025, and the remaining principal balance of the Credit Facility of \$5,170 to be made prior to the amended maturity date of December 31, 2025. Further, the minimum unrestricted cash balance required to be held by the Company was reduced from \$3,000 to \$1,000.

As a result of the loan amendments, the Company recognized a gain on loan modification of \$98 on the Company's Consolidated Statements of Income (Loss) and Comprehensive Income (Loss).

A guarantee for the Credit Facility was provided by a company controlled by Titan's Executive Chairman with a guarantee fee applicable to the available credit limit amount at an annual rate of 1.125%, and has been extended concurrent with the extension of the maturity date of the Credit Facility. During the year ended December 31, 2024, the Company incurred a guarantee fee charge of \$282 (2023 - \$450) recognized on the Company's Statements of Income (Loss) and Comprehensive Income (Loss).

#### Promissory Note - November 1, 2023

In November 2023, the Company entered into a Promissory Note with a company controlled by Titan's Executive Chairman, the ("Lender") to assist with the funding some of the principal repayments of the NBC Credit Facility. Terms of the Promissory Note are as follows:

• \$5,000 loan principal and an Initiation Fee of \$350 aggregating to \$5,350

**Management's Discussion and Analysis** 

(In thousands of US Dollars, unless otherwise indicated)

- Interest at 10% compounded annually commencing on November 1, 2023
- Repayment date of May 1, 2025
- Promissory note is subordinate to the Company's Credit Facility with National Bank. Titan granted the Lender 6,000,000 share purchase warrants at market price for a term of five years in connection with obtaining the financing.

The fair market value of the warrants was calculated using the Black-Scholes Model on the issuance date, November 1, 2023, valuing them at \$645. This amount was recognized as a borrowing cost.

#### Other Related Party Loans

On February 9, 2024 and April 10, 2024, the Company was loaned \$5,000 and \$10,000, respectively, by a company controlled by Titan's Executive Chairman of which proceeds were used to settle principal payments owing on the Company's Credit Facility. An additional \$1,500 was loaned to the Company by the same related party, to assist with funding of the Company's cash deposit to be held by Glencore Ltd., as a part of the Company's fixed price zinc contract, such that the Company would remain compliant with the Company's minimum unrestricted cash balance as required by the financial covenants of the NBC Credit Facility.

As at the date of this report, the Company has not yet agreed to commercial terms related to the related party loans from the company controlled by Titan's Executive Chairman, and as such, has classified these loans as current on the statements of financial position.

#### **Financial Condition**

	Decemb	oer 31, 2024	December 31, 2023		
Cash and cash equivalents	\$	10,163	\$	5,031	
Total debt	\$	32,081	\$	35,779	
Net debt <sup>(1)</sup>	\$	21,918	\$	30,748	
Working capital	\$	(12,581)	\$	(23,512)	

<sup>(1)</sup> Net debt is a non-GAAP measure. This term is not a standardized financial measure under IFRS and might not be comparable to a similar financial measure disclosed by other issuers. See "Non-GAAP performance measures" of this MD&A for a discussion of non-GAAP performance measures.

Cash and cash equivalents as at December 31, 2024 increased by \$5,132 compared to December 31, 2023. The increase in cash was generated from positive operating cash flows of \$14,290. This was partially offset by \$7,292 of net cash used in financing activities, largely as a result of a \$22,000 principal repayments on the Company's Credit Facility, and \$1,707 of interest payments. This was partially offset by funding of by \$16,500 in related party loans. The Company's net cash used in investing activities was \$1,755 during the year, related to the purchase of equipment.

At December 31, 2024, the Company's debt was comprised of a loan from the Credit Facility of \$10,058, the Promissory Note from a related party of \$5,523, and additional loans from a related party of \$16,500. The Company incurred interest and accretion expense of \$2,727 during the year ended December 31, 2024, related to the debt, and made an interest payment of \$1,707 towards the Credit Facility. Amortized borrowing costs during year were \$880.

The working capital deficit decreased as at December 31, 2024 compared to December 31, 2023 as a result of an increase in cash and cash equivalents, an increase in accounts receivable, an increase in inventories, and a decrease in debt, partially offset by an increase in accounts payable.

# TITAN MINING CORPORATION

**Management's Discussion and Analysis** 

(In thousands of US Dollars, unless otherwise indicated)

# **Cash Flows**

	Year ended December 3						
		2024		2023		Change	
Operating cash flows before changes in working capital	\$	16,465	\$	6,085	\$	10,380	
Changes in working capital		(2,175)		(5,666)		3,491	
Net cash flows generated by (used in) operating activities		14,290		419		13,871	
Net cash flows generated by (used in) financing activities		(7,292)		567		(7,859)	
Net cash flows generated by (used in) investing activities		(1,775)		(2,647)		(932)	
	\$	5,223	\$	(1,661)	\$	6,884	

Net cash flows generated from operating activities were higher during the year ended December 31, 2024 compared to the prior year largely as a result of higher revenue and lower cost of sales. A discussion of the changes from period to period is set out above under "Financial Results" and "Other Operating Expenses".

Net cash flows used in financing activities during the year ended December 31, 2024 reflect \$17,000 of principal payments and \$1,707 of interest payments made towards the Credit Facility, partially offset by \$16,500 proceeds received from related party loans. For comparison, net cash flows used in financing activities by the Company in the same period in 2023 reflects \$5,000 of Credit Facility interest payments, \$5,900 advances received from the Credit Facility, \$5,000 advances received from related party loans, \$3,035 of interest payments made on the Credit Facility, and \$1,978 of dividends paid.

Net cash flows used in investing activities in the year ended December 31, 2024 were lower compared to the prior year as a result of lower capital expenditures incurred.

# **Capital Expenditures**

The Company invested \$1,928 in capital expenditures during the year ended December 31, 2024 compared to \$2,648 in capital expenditures in the prior year. A new transformer and a server room were added to capital assets, in addition to two drill rigs, and a compact twin-boom mining equipment was rebuilt during the period. Further, additional capital expenditures were incurred in Q3 2024 to repair a damaged crusher and surrounding infrastructure following the historic flooding from Tropical Storm Debby.

#### Liquidity

As at December 31, 2024, the Company had total liquidity of \$10,163 in cash and cash equivalents. The Company had negative working capital of \$12,581 and a deficit balance of \$61,781. For the year ended December 31, 2024, the Company had recognized net income of \$6,717 and positive operating cash flows of \$14,290. The Company continues to monitor zinc prices and the impact on financial covenants associated with the Credit Facility.

As at December 31, 2023, the Company had total liquidity of \$5,031 in cash and cash equivalents. The Company had negative working capital of \$23,512 and a deficit of \$68,328. For the year ended December 31, 2023, the Company had positive operating cash flows before changes in working capital of \$6,085 and a net loss of \$10,196.

#### **Capital Management**

The Company's objectives when managing capital are to safeguard the Company's ability to continue as a going concern in order to pursue the development and exploration of its mineral properties and to maintain a flexible capital structure, which optimizes the costs of capital to an acceptable risk.

The capital structure of the Company currently consists of common shares and debt financing. The Company manages the capital structure and makes adjustments to it in light of changes in economic conditions, its expected funding requirements, and risk characteristics of the underlying assets. The Company's funding requirements are based on cash forecasts. In order to maintain or adjust the capital structure, the Company may issue new debt, new shares and/or consider strategic alternatives. Management reviews its capital management approach on a regular basis.

As noted above with the Company's debt, the Company is subject to certain financial covenants relating to its Credit Facility with NBC. As at December 31, 2024, the Company was in compliance with all financial covenants. The Company's ability to continue as a going concern is dependent upon the successful execution of its business plan, raising additional capital and/or evaluating strategic alternatives for its mineral property interests. The Company expects to continue to raise necessary funds primarily through securing additional debt or equity in support of its business objectives. There can be no guarantees that debt/equity financing or strategic alternative will be available on acceptable terms to the Company or at all, and therefore, a material uncertainty exists that may cast significant doubt about the Company's ability to continue as a going concern.

# **Contractual obligations and commitments**

The Company's contractual obligations and commitments as at December 31, 2024 and their approximate timing of payment are as follows:

	< 1 year	1 to 3 years	4 – 5 years	>5 years	Total
Debt:					
Repayment of principal	\$ 32,019	\$ -	\$ -	\$ - :	\$ 32,019
Repayment of interest	570	-	-	-	570
Leases	40	87	-	-	127
Reclamation and					
Remediation provision	-	-	-	15,447	15,447
	\$ 32,629	\$ 87	\$ -	\$ 15,447	\$ 48,163

The repayment of debt principal includes \$16,500 owing to a related party, of which commercial terms have not yet been finalized. Until such terms have been finalized, the Company has classified all principal amounts owing as current.

#### **Subsequent Events**

#### Equipment Facility

On December 31, 2024, the Company entered into an equipment facility loan agreement ("Equipment Facility") with Glencore, to purchase certain capital equipment for use at the Company's ESM, up to a combined maximum amount of \$4,800. The Equipment Facility bears interest on a monthly basis using the SOFR plus 2%, with interest payable monthly, and has a maturity date of May 31, 2027. Principal payments are payable in equal installments on a monthly basis from the date of each advance over the remaining term of the Equipment Facility.

Subsequent to December 31, 2024, the Company had advanced a total principal amount of \$2,895 under the Equipment Facility.

#### **Off-Balance Sheet Arrangements**

The Company does not have any off-balance sheet arrangements.

#### **Outstanding Securities**

As of the date of this MD&A, the Company had 136,366,599 common shares issued, 6,000,000 warrants and 10,245,000 options outstanding.

#### FINANCIAL INSTRUMENT

#### a) Carrying amount versus fair value

Set out below is a comparison by class of the carrying amounts and fair value of the Company's financial instruments, other than those whose carrying amounts are a reasonable approximation of fair value:

	December 31, 2024			De	ecemb	er 31, 2023
	 Carrying			 Carrying		
	amount		Fair value	amount		Fair value
Financial liabilities						
Lease liabilities	\$ 127	\$	127	\$ 76	\$	55
Bank indebtedness	\$ 10,058	\$	10,058	\$ 31,655	\$	32,087
Loans from related party	\$ 22,023	\$	22,023	\$ 4,124	\$	5,061

Management assessed that the fair values of cash and cash equivalents, restricted cash, other current assets, other receivables, accounts payable, and dividends payable approximate their carrying amounts due to the short-term maturities of these instruments, and the fair value of acquisition obligations approximate their carrying value as they are non-interest bearing. Trade receivables subject to provisional pricing are already carried at fair value.

Fair values of the Company's lease liabilities, bank indebtedness, equipment loans, and loan from related party are determined by using discounted cash flow models that use discount rates that reflect the issuer's borrowing rate as at the end of the reporting period.

The fair value hierarchy establishes three levels to classify the inputs to valuation techniques used to measure fair value.

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 inputs are quoted prices in markets that are not active, quoted prices for similar assets or liabilities in active markets, inputs other than quoted prices that are observable for the asset or liability (interest rate, yield curves), or inputs that are derived principally from or corroborated observable market data or other means.

Level 3 inputs are unobservable (supported by little or no market activity). The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs

All financial instruments measured at fair value use Level 2 valuation techniques.

There have been no transfers between fair value levels during the reporting period.

# **RELATED PARTY TRANSACTIONS**

### Management company (Manco)

The Company shares office space, equipment, personnel, consultants and various administrative services with other companies related by virtue of certain directors and management in common. These services have been provided through a management company equally owned by each company party to the arrangement. Costs incurred by the management company are allocated and funded by the shareholders of the management company based on time incurred and use of services. If the Company's participation in the arrangement is terminated, the Company will be obligated to pay its share of the rent payments for the remaining term of the officed space rental agreement. The Company's obligation for future rental payments on December 31, 2024 was approximately \$207 over the course of the remaining three year term of the office lease.

The Company was charged for the following with respect to this arrangement during the year ended December 31, 2024:

	Year ended December 31,					
	2024 2023					
Salaries and benefits	\$ 403	\$	482			
Office and other	113		193			
Marketing and travel	18		16			
	\$ 534	\$	691			

#### Key management personnel compensation

Key management personnel include those persons having authority and responsibility for planning, directing and controlling the activities of the Company, and comprises the Company's Executive Chairman, President, Chief Executive Officer, Chief Financial Officer, and Directors.

	Year ended December 31,				
	2024		2023		
Salaries and benefits	\$ 1,040	\$	761		
Consulting fees	764		422		
Share-base compensation	392		309		
Directors' fees	219		219		
	\$ 2,415	\$	1,711		

The following amounts are outstanding as at December 31, 2024 and December 31, 2023, and are included in accounts payable and accrued liabilities.

	As at Deceml	oer 31,	As at	December 31,
		2024		2023
Salaries and benefits payable	\$	650	\$	416
Consulting fees payable		206		-
	\$	856	\$	416

# ACCOUNTING CHANGES AND CRITICAL ESTIMATES

# Adoption of New Accounting Standards

# IAS 1, Presentation of Financial Statements ("IAS 1")

In October 2022, the IASB issued amendments to IAS 1 titled Non-current Liabilities with Covenants. These amendments sought to improve the information that an entity provides when its right to defer settlement of a liability is subject to compliance with covenants within 12 months after the reporting period. These amendments to IAS 1 override but incorporate the previous amendments, Classification of Debt as Current or Non-current, issued in January 2020, which clarified that liabilities are classified as either current or non-current, depending on the rights that exist at the end of the reporting period. Liabilities should be classified as non-current if a company has a substantive right to defer settlement for at least 12 months at the end of the reporting period. Effective January 1, 2024, the Company has adopted these amendments, which did not have a material effect on its Annual Financial Statements.

# Accounting Standards Issued But Not Yet Adopted

#### Amendments to IFRS 9, Financial instruments, and IFRS 7, Financial instruments: Disclosures

In May 2024, the IASB issued amendments to update the classification and measurement requirements in IFRS 9 and related disclosure requirements in IFRS 7 as follows:

- Clarified the recognition and derecognition date of certain financial assets and liabilities and amended the requirements related to settling financial liabilities using an electronic payment system.
- Clarified how to assess the contractual cash flow characteristics of financial assets in determining whether they meet the solely payments of principal and interest criteria.
- New disclosures for certain instruments with contractual terms that can change cash flows (including instruments with features linked to environmental, social and corporate governance targets).
- Additional disclosure requirements for financial instruments with contingent features that do not relate directly to basic lending risks and costs.
- Amended disclosures relating to equity instruments designated at fair value through other comprehensive income. The amendments are effective for annual reporting periods beginning on or after January 1, 2026, with early application permitted for certain provisions. The Company is currently assessing the effect of these amendments to its financial statements but has not yet adopted.

#### IFRS 18, Presentation and disclosure in financial statements

In April 2024, the IASB issued IFRS 18, *Presentation and disclosure in financial statements* ("IFRS 18"), which replaces IAS 1, Presentation of financial statements. IFRS 18 introduces a specified structure for the income statement by requiring income and expenses to be presented in three defined categories (operating, investing, and financing), and by specifying certain defined totals and subtotals. Where company-specific measures related to income statement disclosure are provided ("management-defined performance measures"), such as certain non-GAAP measures, IFRS 18 requires additional disclosure around those management-defined performance measures in the financial statements. IFRS 18 also provides additional guidance on principles of aggregation and disaggregation which apply to the primary financial statements and the notes. IFRS 18 does not affect the recognition and measurement of items in the financial statements, nor does it affect which items are classified in other comprehensive income and how these items are classified.

The standard is effective for reporting periods beginning on or after January 1, 2027, including for interim financial statements. Retrospective application is required and early application is permitted. The Company is currently assessing the effect of this new standard to its financial statements but has not yet adopted it.

# Estimates and judgments

The preparation of consolidated financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the year. Actual outcomes could differ from these estimates. These consolidated financial statements include estimates which, by their nature, are uncertain. The impacts of such estimates are pervasive throughout the financial statements and may require accounting adjustments. Revisions to accounting estimates are recognized in the period in which the estimate is revised and future years if the revision affects both current and future years.

These estimates are based on historical experience, current and future economic conditions and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Significant assumptions and judgments about the future and other sources of estimation uncertainty that management has made at the end of the reporting period, which could result in a material adjustment to the carrying amounts of assets and liabilities, in the event that actual results differ from assumptions made, relate to the following areas:

- Estimated mineral resources;
- Revenue recognition
- Reclamation and remediation provision;
- Impairment;
- Fair value measurement
- Determination of useful life of assets for depreciation purposes;
- Taxation

See note 5 of our 2024 annual audited consolidated financial statements for a detailed discussion of these accounting estimates and judgments.

# DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROL OVER FINANCIAL REPORTING

The Company's management, under the supervision of the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), have designed disclosure controls and procedures ("DC&P") and internal control over financial reporting ("ICFR"), as defined in National Instrument 52-109, *Certification of Disclosure in Issuers' Annual and Interim Filings*, based on the 2013 control framework developed by the Committee of Sponsoring Organizations of the Treadway Commission.

The DC&P have been designed to provide reasonable assurance that material information relating to the Company is made known to the CEO and CFO, particularly during the period in which the interim filings are prepared and the information required to be disclosed by the Company in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified. The ICFR has been designed to provide reasonable assurance regarding the reliability of financial reporting for external purposes in accordance with international financial reporting standards. Due to the inherent limitations associated with any such controls and procedures, management recognizes that, no matter how well designed, they may not prevent or detect misstatements on a timely basis.

# CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

NI 52-109 also requires Canadian public companies to disclose any changes in ICFR during the most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, ICFR. No material changes were made to internal controls during the year ended December 31, 2024.

# **NOTES TO READER**

#### Cautionary note regarding forward-looking information

Certain information contained in this document constitutes forward-looking statements. All statements, other than statements of historical facts, are forward looking statements, including but not limited to that Titan believes that the district surrounding ESM remains underexplored despite the long operating history of ESM; the nature, extent, location, and timing of future exploration and testing at ESM; that testing at targets prioritized for surface sampling, mapping and drilling occurs as scheduled, if at all; production guidance; anticipated head grade; anticipated zones that will be mined, and timing of such mining; exploration plans at the Kilbourne target and timing of such plans; that the Company continues to examine various financing options to bolster the Company's treasury; that the Company may require additional funding in the next twelve months; and that the Company expects that it will continue to obtain funding through similar or other means depending on market conditions and other relevant factors at the time; anticipated recommencement of mining at N2D, and timing and results therefrom; anticipated construction of the Facility and timing and results therefrom. Forward-looking statements are often, but not always, identified by the use of words such as may, will, seek, anticipate, believe, plan, estimate, budget, schedule, forecast, project, expect, intend, or similar expressions.

The forward-looking statements are based on a number of assumptions which, while considered reasonable by the Company, are subject to risks and uncertainties. The Company cautions readers that forward-looking statements involve and are subject to known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to differ materially from those expressed in or implied by such forward looking statements and forward-looking statements are not guarantees of future results, performance or achievement. The Company has made assumptions based on or related to many of these risks, uncertainties and factors. These risks, uncertainties and factors include general business, economic, competitive, political, regulatory and social uncertainties: actual results of exploration activities and economic evaluations: fluctuations in currency exchange rates; changes in project parameters; changes in costs, including labour, infrastructure, operating and production costs; future prices of zinc and other minerals; variations of mineral grade or recovery rates; operating or technical difficulties in connection with exploration, development or mining activities, including the failure of plant, equipment or processes to operate as anticipated; delays in completion of exploration, development or construction activities; changes in government legislation and regulation; the ability to maintain and renew existing licenses and permits or obtain required licenses and permits in a timely manner; the ability to obtain financing on acceptable terms in a timely manner; contests over title to properties; risks of making a production decision at Turnpike (formerly Sphaleros) that is not based on a technical report; employee relations and shortages of skilled personnel and contractors; the speculative nature of, and the risks involved in, the exploration, development and mining business; damage caused by Tropical Storm Debby; the Company's assumptions regarding time and cost to repair damage caused by Tropical Storm Debby; and the factors discussed in the section entitled "Risks Factors" in the Company's most recent annual information form filed on SEDAR+.

Although the Company has attempted to identify important risks, uncertainties and other factors that could cause actual performance, achievements, actions, events, results or conditions to differ materially from those expressed in or implied by the forward-looking information, there may be other risks, uncertainties and other factors that cause performance, achievements, actions, events, results or conditions to differ from those anticipated, estimated or intended. Unless otherwise indicated, forward-looking statements contained herein are as of the date hereof and the Company disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by applicable law.

# **Risk Factors**

The Company's activities and related results are subject to a number of different risks at any given time. Exploration and development of mineral resources involves a high degree of risk. A summary of the Company's financial instruments risk exposure is provided in the Financial Instruments section of the Company's 2024 Annual Financial Statements. The following are additional risk factors which the Company's management believes are most important in the context of the Company's business. It should be noted that this list is not fully comprehensive and that other risk factors may apply.

# The Company has a limited operating history

The Company has a limited operating history upon which an evaluation of the Company, its current business and its prospects can be based. Further, its sole production mineral property, ESM's #4 mine, was on care and maintenance since 2008 until recommencing operations in 2017. If the Company is unable to generate significant revenues from ESM's #4 mine, it will not be able to earn profits or continue operations. There can be no assurance that the Company will be successful in ever achieving profitable operations. The Company has a limited operating history from which its business and prospects can be evaluated, and forecasts of any potential growth of the business of the Company are difficult to evaluate. The Company's prospects must be considered in light of the risks, expenses and difficulties frequently encountered by single asset companies in the early stages of development, including under-capitalization, cash shortages, limitations with respect to personnel, financial and other resources, and lack of revenues.

# Dependence on ESM's #4 mine

The only mineral producing property the Company has is the ESM #4 mine. Because ESM's #4 mine has a limited life based on mineral resource estimates, the Company will be required to replace and expand its mineral resources to continue production beyond the current mine life. In the absence of additional producing mineral projects, the Company will be solely dependent upon ESM's #4 mine for its revenue and profits, if any, and the Company's ability to maintain or increase its annual production will be dependent in significant part on its ability to expand its mineral resource base at ESM's #4 mine and increase throughput at ESM's #4 mine mill above its initially targeted rate.

#### There may be requirements for additional capital in the future

Any future mining, production, processing, development and exploration by the Company may require substantial additional financing, including capital for the continuation or expansion of mining operations at ESM's #4 mine. Failure to obtain sufficient financing may result in delaying or indefinite postponement of the Company's business plans. There can be no assurance that additional capital or other types of financing will be available if needed or that, if available, the terms of such financing will be favourable to the Company. This uncertainty casts doubt about the Company's ability to continue as a going concern.

#### Financial leverage and restrictive covenants may restrict our current and future operations

The Company and its subsidiaries have agreed to various restrictive covenants with its lenders under its existing loan arrangements, including to maintain certain interest coverage ratios and minimum cash balances, make payments of interest and principal when due, to conduct its operations subject to certain restrictions and to comply with restrictions governing current and future indebtedness.

These restrictions prohibit or limit the Company's and its subsidiaries' ability to, among other things, incur additional debt, provide guarantees for indebtedness, create liens, dispose of assets, liquidate, dissolve, wind up, or assign or surrender a material contract. These restrictions may restrict the Company's ability to refinance its existing indebtedness. If the Company defaults in respect of its obligations under its loan arrangements, including without limitation servicing existing indebtedness, or if it is unable to refinance any such indebtedness, its lenders may be entitled to demand repayment and enforce their security against certain assets.

If there is any event of default under its existing loan arrangements, the principal amount owing, plus accrued and unpaid interest, may be declared immediately due and payable. If such an event occurs, or if any extended default under such agreements is ongoing, it could have a material negative impact on the Company financially.

In addition, the degree to which the Company and its subsidiaries are leveraged could have important consequences to shareholders, including: (i) the Company's ability to obtain additional financing for working capital, capital expenditures, acquisitions or other project developments in the future may be limited; (ii) a significant portion of the Company's cash flows from operations may be dedicated to the payment of the principal and interest on their indebtedness, thereby reducing funds available for future operations and flexibility to take advantage of business opportunities; (iii) the Company may be unable to refinance its existing indebtedness on terms favourable to the Company, if at all, and the consequences arising therefrom; and (iv) the Company may be more vulnerable to economic downturns and be limited in its ability to withstand competitive pressures. The inability to meet these debt covenants or obtain lenders' consent to carry out restricted activities could materially and adversely affect the business and results of operations of the Company.

The Company's ability to continue as a going concern is dependent upon the successful execution of its business plan, raising additional capital and/or evaluating strategic alternatives for its mineral property interests. The Company expects to continue to raise necessary funds primarily through securing additional debt or equity in support of its business objectives. There can be no guarantees that debt/equity financing or strategic alternative will be available on acceptable terms to the Company or at all, and therefore, a material uncertainty exists that may cast significant doubt about the Company's ability to continue as a going concern.

# United States-Canada Tariffs

Recent executive orders have been issued by the U.S. President, including to direct the U.S. to impose new or increased tariffs on certain imports from its trading partners, including Canada, Mexico and China, and on certain other imports regardless of origin. The executive orders contemplated the imposition of 25% tariffs on most goods imported from Mexico and Canada (excluding certain energy resources from Canada, which were set to face a lesser tariff) and a 10% additional tariff on all goods from China, with originally planned implementation dates of February 4, 2025 and March 4, 2025. Certain other countries have, or have indicated, that they intend to impose retaliatory tariffs. While the U.S. administration recently deferred the implementation of certain tariffs pending negotiations between Canada and the U.S., there is no assurance that these negotiations will result in a successful withdrawal of the tariff proposals or a reduction in tariff rates. It remains unclear the extent to which additional duties, tariffs and/or other trade restrictions or other similar measures may be imposed by the United States or other countries, whether and if any changes to the currently announced tariffs will be applied, how long they may be in effect, the extent to which further retaliatory measures will be imposed, and whether other factors will support a pass through of all or a part of the tariffs to the market.

If high US tariffs are imposed on Canadian products and the products of other countries and Canada and the other countries retaliate with import tariffs on US products, the consequences on global supply chains could adversely impact the Company's ability to source the supplies the Company relies on to perform its planned work programs or operations or, if available, the cost of such supplies could increase, potentially impairing the Company's ability to complete work programs or conduct its operations.

# Fluctuations in demand for, and prices of, zinc

As the Company's sole source of revenue is the sale of zinc in separated and/or mixed form, changes in demand for, and the market price of, zinc are expected to have a significant effect on the Company's revenues and results of operations. The value and price of the Common Shares and the Company's financial results may be significantly adversely affected by declines in the prices of zinc. The price of zinc is influenced by many factors beyond the control of the Company. The level of interest rates, the rate of inflation, global and regional consumption patterns, the world supply of and demand for zinc, including zinc's intermediate and end product uses, market behaviour of current supply sources for zinc and the variation in exchange rates can all cause significant fluctuations in prices of zinc. Such external economic factors are in turn influenced by changes in international investment patterns, monetary systems and political developments. The effect of these factors cannot be accurately predicted. The price of zinc and mineral commodities more generally has fluctuated widely in the past decade and future declines in the price of zinc received could cause commercial production to become uneconomic, thereby having a material adverse effect on the Company's business and financial condition and the value and price of the Common Shares. ESM's #4 mine was closed and placed on care and maintenance in the fall of 2008 in the face of a general economic turndown and

resulting fall in zinc prices. The Company's results of operations will also be heavily dependent on the costs of consumables, particularly fuel, energy, chemical reagents and other products which may be required to be used in future exploration, development, mining and treatment operations.

A prolonged or significant economic contraction worldwide could put further downward pressure on market prices of zinc. Protracted periods of low prices for zinc could significantly reduce revenues and the availability of required development funds in the future. This could impair asset values and reduce the Company's mineral resources.

In contrast, extended periods of high commodity prices may create economic dislocations that may be destabilizing to supply and demand of zinc and ultimately to the broader markets. Strong prices for zinc may create economic pressure to identify or create alternate technologies using substitutes for zinc that ultimately could depress future long-term demand for zinc, and at the same time may incentivize development of otherwise marginal mining properties that would compete with the Company.

# Ramping up mining operations

As Titan continues to ramp up production, several risks remain for the Company, including: (i) Titan may encounter unforeseen obstacles or costs in operating the mine, some of which may be material and could cause Titan's estimates of time and costs to ramp up production to be significantly understated, (ii) certain lower levels of the mine are considered unsafe, (iii) some equipment may be more unreliable as operations ramp-up, and (iv) production rates and ore grades may not be as predicted. Any of these factors may adversely affect Titan's ability to ramp up production and could place Titan in a position where it has insufficient cash resources to continue mining operations, or which could result in mining operations being uneconomic.

# Limited Supplies, Supply Chain Disruptions, and Inflation

Our operations require skilled personnel and a supply of other resources, such as natural gas, diesel, oil and electricity. Supply may be interrupted due to a shortage or the scarce nature of inputs. Supply might also be interrupted due to transportation and logistics associated with government restrictions or regulations which delay importation of necessary items. COVID-19 has had a significant impact on global supply chains, which has impacted our ability to source supplies required for our operations and has increased the costs of those supplies. Global supply chains have been further strained by the current conflict between Russia and the Ukraine and could be strained further by any exacerbation of this conflict. Any interruptions to the procurement and supply of resources, or the availability of skilled personnel, as well as increasing rates of inflation, could have an adverse impact on our future cash flows, earnings, results of operations, and financial condition.

# The Company's current production projections and cost estimates for ESM's #4 mine may prove to be inaccurate

A reduction in the amount of, or a change in the timing of, the zinc production as compared to the Company's current projections for ESM's #4 mine may have a material adverse impact on the Company's anticipated future cash flows. The actual effect of such a reduction of the Company's cash flow from operations would depend on the quantity and timing of any such changes in production and on actual prices and costs. A change in the timing of these projected cash flows due to production shortfalls or labour disruptions would result in delays in receipt of such cash flows and in using such cash to fund operating activities and, as applicable, reduce debt levels or fund capital expenditures. This could result in the Company being required to raise additional equity capital or incur additional indebtedness to finance capital expenditures in the future.

The level of production and capital and operating cost estimates which are used for determining and obtaining financing and other purposes are based on certain assumptions and are subject to considerable uncertainties. Actual results of operations at ESM's #4 mine are likely to differ from the Company's current estimates, and these differences may be significant. Moreover, experience from actual mining or processing operations may identify new or unexpected conditions that could decrease production below, and/or increase capital and/or operating costs above, the current estimates. If actual results are less favourable than the Company currently estimates, the Company's business, results from operations, financial condition and liquidity could be materially adversely affected.

# Profitability of the Company

There can be no assurance that the Company's business and strategy will enable it to become profitable or sustain profitability in future periods. The Company's future operating results will depend on various factors, many of which are beyond the Company's direct control, including the Company's ability to develop its mining projects and commercialize its mineral resources, its ability to control its costs, the demand and price for zinc and general economic conditions. If the Company is unable to generate profits in the future, the market price of the Common Shares could decline.

# Mining is inherently risky and subject to conditions or events beyond the Company's control

The development and operation of a mine or mine property is inherently dangerous and involves many risks that the Company may not be able to overcome, including:

- unusual or unexpected geological formations;
- metallurgical and other processing problems;
- metal losses;
- environmental hazards;
- power outages;
- labour disruptions;
- industrial accidents;
- periodic interruptions due to inclement or hazardous weather conditions;
- flooding, explosions, fire, rockfalls, rockbursts, cave-ins and landslides;
- ground or soil conditions including seismic activity;
- mechanical equipment and facility performance problems;
- poor ventilation in all or part of ESM; and
- the availability of materials and equipment.

These risks could result in damage to, or destruction of, mineral properties, production facilities or other properties, personal injury or death, including to the Company's employees, environmental damage, delays in mining, increased production costs, asset write downs, monetary losses and legal liability. The Company may not be able to obtain insurance to cover these risks at economically feasible premiums, or at all, or it may choose not to insure against these risks. Insurance against certain environmental risks, including potential liability for pollution and other hazards as a result of the disposal of waste products occurring from production, is not generally available to companies in the mining industry. The Company may suffer a material adverse effect on its business if the Company incurs losses related to any significant events that are not covered by the Company's insurance policies.

#### Mineral resource calculations are only estimates based on interpretation and assumptions

Any figures presented for mineral resources will only be estimates. There is a degree of uncertainty attributable to the calculation of mineral resources. Until **mineralized material** is actually mined and processed, the quantity of metal and grades must be considered as estimates only and no assurances can be given that the indicated levels of metals will be recovered. In making determinations about whether to advance any of its projects to development, the Company must rely upon such estimated calculations as to the mineral resources and grades of mineralization on its properties.

The estimation of mineral resources is a subjective process that relies on the judgment of the persons preparing the estimates. The process relies on the quantity and quality of available data and is based on knowledge, mining experience, analysis of drilling results and industry practices. Estimates made at a given time may significantly change when new information becomes available. By their nature, mineral resource estimates are imprecise and

depend, to a certain extent, upon analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate.

Estimated mineral resources may have to be recalculated based on changes in mineral prices, further exploration or development activity or actual production experience. This could materially and adversely affect estimates of the volume or grade of mineralization, estimated recovery rates or other important factors that influence mineral resource estimates. The extent to which mineral resources may ultimately be reclassified as mineral reserves is dependent upon the demonstration of their profitable recovery. Any material changes in mineral resource estimates and grades of mineralization will affect the economic viability of placing a property into production and a property's return on capital. The Company cannot provide assurance that mineralization can be mined and processed profitably.

The Company's mineral resource estimates have been determined and valued based on assumed future prices, cutoff grades and operating costs that may prove to be inaccurate. Extended declines in market price for zinc may render portions of the Company's mineralization uneconomic and result in a reduction in reported mineral resources, which in turn could have a material adverse effect on the Company's results of operations, financial condition or the market price of the Common Shares. The Company cannot provide assurance that mineral recovery rates achieved in small scale tests will be duplicated in large scale tests under on-site conditions or in production scale. In addition, if the Company's projects produce concentrate for which there is no market, this may have an impact on the economic model for ESM.

#### Production based on mineral resources

The Company based its production decision on the results of a preliminary economic assessment and not on a feasibility study of mineral reserves demonstrating economic and technical viability, and as a result there is increased uncertainty and there are multiple technical and economic risks of failure which are associated with this production decision. These risks, among others, include areas that would be analysed in more detail in a feasibility study, such as applying deeper economic analysis to mineral reserves and mineral resources, more detailed metallurgy and a number of specialized studies in areas such as mining and recovery methods, market analysis, and environmental and community impacts.

# Uncertainty exists related to inferred mineral resources

There is a risk that inferred mineral resources referred to in the most recent technical report for ESM cannot be converted into measured or indicated mineral resources as there may be limited ability to assess geological continuity. Due to the uncertainty related to inferred mineral resources, there is no assurance that inferred mineral resources will be upgraded to mineral resources with sufficient geological continuity to constitute mineral reserves as a result of continued exploration and economic evaluation.

# Construction and Commissioning of Processing and Demonstration Facilities

The design and construction of efficient processing and demonstration facilities, such as the Facility (as defined above), the cost and availability of suitable machinery, supplies, equipment and skilled labor, the existence of competent operational management and prudent financial administration, as well as the availability and reliability of appropriately skilled and experienced employees can affect successful project development.

The Company intends to construct the Kilbourne Project Facility, which will rely on new infrastructure. It is common in new processing facilities to experience unexpected problems and delays during construction, development, startup and commissioning activities. The costs, timing and complexities of developing the Kilbourne Project Facility may be significantly higher than anticipated which can add to the cost of development, production and operation and/or impair production and activities.

#### Need for Funding and Time of Development

There is a risk that the development of the Kilbourne Project Facility will not be completed on time or on budget, or at all. The development and construction schedule of the Kilbourne Project Facility is based on management's expectations, and may be delayed by a number of factors, some of which are beyond the Company's control. Most, if

not all, projects of this kind suffer delays in start-up and commissioning due to late delivery of components, the inadequate availability of skilled labor and mining equipment, adverse weather or equipment failures, the rate at which expenditures are incurred, delays in construction schedules, or delays in obtaining the required permits or consents, or to obtain the required financing.

# **Risks Related to Future Sale of Graphite Products**

The viability of the Company's Kilbourne Project is dependent on future sales of graphite-based products. No assurance can be given that the Company will be able to sell graphite-based products at such terms and conditions as are favourable for, or necessary to sustain the operations of the Company.

The Company has not entered into any other binding agreements for the sale of graphite-based products. There can be no guarantee that the Company will be able to secure sales agreements, including offtake agreements for future sales and, if so, there can be no guarantee as to the amount of purchase orders or commitments, the quantity of graphite represented by such orders and commitments or the timing for receiving same. Factors that may impact such orders and commitments include the ability of the Company to reliably and consistently produce graphite meeting client specifications and confidence of clients in such ability, market conditions and demand for products requiring graphite, overall market conditions and the strength of the economy.

If the Company, for whatever reason, is not able to produce the products in accordance with the terms and specifications of any sales agreements, such noncompliance or violation, resulting in termination or damages, may have an adverse effect on the Company's operations and financial position. Even if the Company is able to meet the requirements set out therein, there is no assurance that the contract counterparties will be willing or able to purchase the production at the prices or quantities they have agreed to in a particular offtake agreement.

# Graphite Supply, Demand, Macroeconomic conditions

Global graphite supply is concentrated in a limited number of countries, particularly China, which accounts for a substantial portion of global production. Geopolitical tensions, export restrictions, trade policies, and environmental regulations in key producing regions may disrupt supply chains, leading to price volatility and potential shortages. Additionally, the development of new graphite projects is capital-intensive and subject to permitting delays, technological challenges, and infrastructure limitations, which may constrain future supply. Given that graphite is not a publicly traded commodity like base and precious metals, and sales agreements are negotiated privately, actual sales prices may differ from the Company's assumptions. This opacity in pricing can further contribute to uncertainty in forecasting and financial performance.

The demand for graphite is influenced by several factors, including the growth of the electric vehicle (EV) and renewable energy sectors, as graphite is a critical component in lithium-ion batteries. Changes in government policies, technological advancements, or slower-than-anticipated adoption of EVs and energy storage systems could reduce graphite demand. Conversely, rapid adoption could drive increased competition for graphite resources and escalate input costs for the Company. Additionally, a limited number of existing producers may seek to protect their market position by increasing production capacity or lowering prices, which could create competitive pressures and impact the Company's ability to secure favorable sales agreements.

Broader economic conditions, including inflation, currency fluctuations, and global economic slowdowns, could impact graphite prices and availability. Economic uncertainty or recessions may reduce industrial activity and the demand for graphite across multiple sectors, while inflationary pressures could increase operational costs and capital expenditures. Furthermore, global supply chain disruptions stemming from pandemics, natural disasters, or geopolitical conflicts may affect the availability and cost of graphite. Foreign currency fluctuations may also influence the cost structure and profitability of graphite operations, particularly when sales agreements are denominated in foreign currencies.

Factors such as foreign currency fluctuation, supply and demand, industrial disruption and actual graphite market sale prices could have an adverse impact on operating costs and stock market prices and on the Company's ability to fund its activities. In each case, the economics of the Kilbourne project could be materially adversely affected, even to the point of being rendered uneconomic.

# Title

There is no guarantee that the Company's title to its properties will not be challenged or impugned. The Company's claims may be subject to prior unregistered agreements or transfers and title may be affected by unidentified or unknown defects. If title to the Company's properties is disputed, it may result in the Company paying substantial costs to settle the dispute or clear title and could result in the loss of the property, which events may affect the economic viability of the Company.

# Surface Access

In some cases, the Company has ownership title or leasehold rights only to the minerals of certain properties (the mineral estate), while other parties own the non-mineral or surface rights of the properties (the surface estate). In such cases, the Company has the legal right to access the property, and conduct activities on the property to the fullest extent necessary to realize its rights to the mineral estate, subject only to an obligation to avoid unreasonably impacting the surface estate and the activities of owners of the surface estate, and with due regard to their physical safety. Nonetheless, the owners of the surface estate may prove unwilling to coordinate with the Company regarding the timing and other parameters of the Company's access and activities on the property or may obstruct the Company's representatives while they are on the property. In addition, the owners of the surface estate may use or allow others to use the property for hunting or other activities that risk the safety of the Company's representatives while they are on the group or the surface the company's ability to realize its rights to the mineral estate and give rise to legal claims.

# The Company may experience difficulty attracting and retaining qualified management and employees to sustain and grow its business

The Company is dependent on the services of key executives and its skilled employees to advance its corporate objectives and to identify new opportunities for growth and funding. The loss of any executive of the Company and the Company's inability to attract and retain a suitable replacement, or additional highly skilled employees required for the Company's activities, would have a material adverse effect on the Company's business and financial condition.

### Competition

The Company competes with other mining companies, many of which are better capitalized, have greater financial resources, operational experience and technical capabilities or are further advanced in their development or are significantly larger and have access to mineral reserves, for the acquisition of mineral claims, leases and other mineral interests as well as for the recruitment and retention of qualified employees and other personnel. If the Company requires and is unsuccessful in acquiring additional mineral properties or qualified personnel, the Company will not be able to grow at the rate it desires, or at all.

#### Significant governmental regulations

The Company's mining activities are subject to extensive federal, state and local laws, regulations and policies governing various matters, including:

- environmental protection, including regulations with respect to processing concentrates;
- the management and use of toxic substances and explosives;
- the management of natural resources and land;
- the exploration of mineral properties;
- exports;
- price controls;
- taxation and mining royalties;
- labour standards and occupational health and safety, including mine safety; and

• historic and cultural preservation.

Failure to comply with applicable laws and regulations may result in civil or criminal fines or penalties or enforcement actions, including orders issued by regulatory or judicial authorities enjoining or curtailing operations or requiring corrective measures, installation of additional equipment or remedial actions, any of which could result in significant expenditures. The Company may also be required to compensate private parties suffering loss or damage by reason of a breach of such laws, regulations or permitting requirements. It is also possible that future laws and regulations, or more stringent enforcement of current laws and regulations by governmental authorities, could cause the Company to incur additional expenses or capital expenditure restrictions, or suspensions of the Company's activities and delays in the exploration and development of its properties.

# Market events and general economic conditions

Adverse events in global financial markets can have profound impacts on the global economy. Many industries, including the zinc mining industry, are affected by these market conditions. Some of the key effects of the financial market turmoil experienced over the past decade include contraction in credit markets resulting in a spread of credit risk, devaluations, high volatility in global equity, commodity, foreign exchange and precious metal markets, and a lack of market liquidity. A continued or worsened slowdown in the financial markets or other economic conditions, including but not limited to, consumer spending, employment rates, business conditions, inflation, fuel and energy costs, consumer debt levels, lack of available credit, the state of the financial markets, interest rates and tax rates, may adversely affect the Company's growth and profitability, financial liabilities and results of operations.

# Environmental laws and regulations (including in respect of climate change)

All of the Company's exploration, development and production activities are subject to regulation by governmental agencies under various environmental laws. These laws address emissions into the air, discharges into water, management of waste, management of hazardous substances, protection of natural resources, antiquities and endangered species, reclamation of lands disturbed by mining operations and climate change. Environmental legislation is evolving, and the general trend has been towards stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and increasing responsibility for companies and their officers, directors and employees. Compliance with environmental laws and regulations may require significant capital outlays on the Company's behalf and may cause material changes or delays in the Company's intended activities. Future changes in these laws or regulations could have a significant adverse impact on some portion of the Company's business, requiring the Company to re-evaluate those activities at that time. Non-compliance thereof may result in significant penalties, fines and/or sanctions imposed on the Company by the relevant environmental regulatory authority resulting in a material adverse effect on the Company's reputation and results of its operations.

# Threat of legal proceedings

Due to the nature of its business, the Company may be subject to numerous regulatory investigations, civil claims, lawsuits and other proceedings in the ordinary course of its business. The results of these legal proceedings cannot be predicted with certainty due to the uncertainty inherent in litigation, the difficulty of predicting decisions of regulators, judges and juries and the possibility that decisions may be reversed on appeal. The Company's efforts to respond to the legal proceedings could result in a diversion of management time and attention from revenue-generating activities. There can be no assurances that these matters will not have a material adverse effect on the Company's business. See "*Title*", above.

#### Rights, concessions and permits

The Company's current and anticipated future operations, including further exploration, development and production on its mineral properties, including ESM's #4 mine, require concessions and permits from various governmental authorities.

Obtaining or renewing governmental concessions and permits is a complex and time-consuming process. The duration and success of efforts to obtain and renew permits are contingent upon many variables not within the Company's control. The Company cannot provide assurance that all rights, concessions and permits that it requires

for its operations will be obtainable or renewable on reasonable terms, or at all. Delays or a failure to obtain or renew such required concessions and permits, or the expiry, revocation or failure to comply with the terms of any such concessions and permits that the Company has obtained, would adversely affect the Company's business.

# Social and environmental activism can have a negative effect on exploration, development and mining activities

There is an increasing level of public concern relating to the effects of mining on the natural landscape, on communities and on the environment. Certain non-governmental organizations, public interest groups and reporting organizations ("**NGOs**") who oppose resource development can be vocal critics of the mining industry. In addition, there have been many instances in which local community groups have opposed resource extraction activities, which have resulted in disruption and delays to the relevant operation. Local communities in St. Lawrence County, NGOs or local community organizations could direct adverse publicity and/or disrupt the operations of the Company in respect of ESM or another of the Company's properties, regardless of its successful compliance with social and environmental best practices, due to political factors, activities of unrelated third parties on lands in which the Company has an interest or the Company's operations specifically. Any such actions and the resulting media coverage could have an adverse effect on the reputation and financial condition of the Company or its relationships with the communities in which it operates, which could have a material adverse effect on the Company's business, financial condition, results of operations, cash flows or prospects.

# Land reclamation requirements for the Company's properties may be burdensome

Land reclamation requirements are generally imposed on companies with mining operations or mineral exploration companies in order to minimize long term effects of land disturbance. Reclamation may include requirements to:

- control dispersion of potentially deleterious effluents; and
- reasonably re-establish pre-disturbance land forms and vegetation.

In order to carry out reclamation obligations imposed on the Company in connection with exploration, development and production activities, the Company must allocate financial resources that might otherwise be spent on exploration and contemplated development programs. If the Company is required to carry out unanticipated reclamation work or provide security for further reclamation work, the Company's financial position could be adversely affected.

#### Tailings management facility and environmental reclamation

The embankment for the tailings management facility ("**TMF**") at ESM's #4 mine will need to be raised to fully contain the estimated tonnage for ESM's#4 mine as set out in the current mine plan. The Company is not certain how the native surface of the TMF was prepared, what design features were included, what sub-surface conditions existed prior to construction or the material properties of the fill used for construction. If the Company is unable to complete the embankment raise at the TMF, or if the TMF were to subsequently breach, the Company would be required to delay or cease operations at ESM's #4 mine for a significant period of time. This may also necessitate extensive response and rehabilitation activities. The Company may not receive approvals and consents necessary to proceed with the remaining rehabilitation plans in a timely manner. The Company cannot anticipate the timing and amount of the costs and the liabilities relating to any such TMF failure, or whether such failure would result in the Company being subject to regulatory charges or claims, fines and penalties or the potential quantum thereof.

#### Insurance

ESM's #4 mine is subject to numerous risks and hazards. Such risks could result in personal injury, environmental damage, damage to and destruction of the facilities, delays in production and liability. For some of these risks, the Company maintains insurance to protect against these losses at levels consistent with industry practice. However, the Company may choose not to insure certain risks or may not be able to maintain current or desired levels of insurance coverage, particularly if there is a significant increase in the cost of premiums. The Company's current policies may not cover all losses and the Company currently does not have specific coverage for environmental risk. Moreover, in the event that the Company is unable to fully pay for the cost of remedying damages, particularly

environmental problems, the Company might be required to suspend or significantly curtail its activities or enter into other interim compliance measures.

# Health & safety

Mining, like many other extractive natural resource industries, is subject to potential risks and liabilities due to accidents that could result in serious injury or death. The impact of such accidents could affect the profitability of the operations, cause an interruption to operations, lead to a loss of licenses, affect the reputation of the Company and its ability to obtain further licenses, damage community relations and reduce the perceived appeal of the Company as an employer.

There is no assurance that the Company has been or will at all times be in full compliance with all laws and regulations or hold, and be in full compliance with, all required health and safety permits. The potential costs and delays associated with compliance with such laws, regulations and permits could prevent the Company from proceeding with the development of a project or the operation or further development of a project, and any non-compliance therewith may adversely affect the Company's business, financial condition and results of operations.

Amendments to current laws, regulations and permits governing operations and activities of mining companies, or more stringent implementation thereof, could have a material adverse impact on the Company and cause increases in exploration expenses, capital expenditures or production costs, reduction in levels of production at producing properties, or abandonment or delays in development of new mining properties.

# The Company is dependent on information technology systems

The Company's operations depend, in part, upon information technology systems. The Company's information technology systems are subject to disruption, damage or failure from a number of sources, including, but not limited to, computer viruses, security breaches, natural disasters, power loss and defects in design. Although to date the Company has not experienced any material losses relating to information technology system disruptions, damage or failure, there can be no assurance that it will not incur such losses in future. Any of these and other events could result in information technology systems failures, operational delays, production downtimes, destruction or corruption of data, security breaches or other manipulation or improper use of the Company's systems and networks, any of which may result in a material adverse effect on the Company's business, financial condition, results of operations, cash flows or prospects.

# Fixed Zinc Pricing Arrangements and Other Pricing Hedges

The Company may from time to time enter into fixed zinc pricing arrangements or other hedges in respect of a material amount of its forecasted zinc production. The use of these arrangements involves certain inherent risks including the risk of default on amounts owing to the Company by the counterparties with which the Company has entered into such transactions. In the event that such risks materialize, the Company's future cash flows, profitability, results of operations and financial condition could be materially and adversely affected.

# **Conflicts of interest**

Certain of the Company's directors also serve or may serve as directors or officers of, or have significant shareholdings in, other companies involved in natural resource exploration, development and production or mining-related activities, including in other companies involved in the exploration, development and production of zinc. To the extent that such other companies may participate in ventures in which the Company may participate, or in ventures which the Company may seek to participate in, the Company's directors and officers may have a conflict of interest in negotiating and concluding terms respecting the extent of such participation. In all cases where the Company's directors and officers have an interest in other companies, such other companies may also compete with the Company for the acquisition of mineral property investments. Such conflicts of the Company's directors and officers and officers and officers of mineral property investments. Such conflicts of the Company's directors and officers and officers and officers and officers may result in a material and adverse effect on the Company may miss the opportunity to participate in certain transactions, which may have a material adverse effect on the Company's financial position.

#### Risks inherent in acquisitions

The Company may actively pursue the acquisition of exploration, development and production assets consistent with its acquisition and growth strategy. From time to time, the Company may also acquire securities of or other interests in companies with respect to which it may enter into acquisitions or other transactions. Acquisition transactions involve inherent risks, including but not limited to:

- accurately assessing the value, strengths, weaknesses, contingent and other liabilities and potential profitability of acquisition candidates;
- ability to achieve identified and anticipated operating and financial synergies;
- unanticipated costs;
- diversion of management's attention from existing business;
- potential loss of the Company's key employees or key employees of any business acquired;
- unanticipated changes in business, industry or general economic conditions that affect the assumptions underlying the acquisition; and
- decline in the value of acquired properties, companies or securities.

Any one or more of these factors or other risks could cause the Company not to realize the anticipated benefits of an acquisition of properties or companies, and could have a material adverse effect on its financial condition.

#### Labour and employment retention relations

Production at ESM's #4 mine will be dependent upon the ability of the Company to hire qualified employees and to maintain good relations with its employees. In addition, relations between the Company and its employees may be impacted by changes in the scheme of labour relations which may be introduced by the relevant governmental authorities in the United States. Adverse changes in such legislation or in the relationship between the Company and its employees to ESM's #4 mine may have a negative impact on the Company's business, results of operations and financial condition.

# Anti-corruption and bribery regulation, including the Canadian Extractive Sector Transparency Measures Act ("ESTMA") reporting

The Company is required to comply with anti-corruption and anti-bribery laws in Canada and the United States. In recent years, there has been a general increase in both the frequency of enforcement and the severity of penalties under such laws, resulting in greater scrutiny and punishment of companies convicted of violating anti-corruption and anti-bribery laws. Furthermore, a company may be found liable for violations by not only its employees, but also by its contractors and third-party agents. Although the Company has adopted a Code of Conduct that addresses these matters, no assurance can be given that the Company, or its employees, contractors or third-party agents will comply strictly with such laws. If the Company is the subject of an enforcement action or in violation of such laws, it may result in significant penalties, fines and/or sanctions imposed on the Company resulting in a material adverse effect on the Company's reputation and results of its operations.

In addition, ESTMA requires public disclosure of payments to governments by mining and oil and gas companies engaged in the commercial development of oil, gas and minerals who are either publicly listed in Canada or with business or assets in Canada. Mandatory annual reporting is required for extractive companies with respect to payments made to foreign and domestic governments at all levels, including entities established by two or more governments, and including aboriginal groups. ESTMA requires reporting on the payments of any taxes, royalties, fees, production entitlements, bonuses, dividends, infrastructure improvement payments, and any other prescribed payment over C\$100,000. Failure to report, false reporting or structuring payments to avoid reporting may result in fines of up to C\$250,000 (which may be concurrent). The Company commenced reporting in 2017. If the Company finds itself subject to an enforcement action or in violation of ESTMA, this may result in significant penalties, fines and/or sanctions imposed on the Company resulting in a material adverse effect on its reputation.

# Infrastructure

Mining, processing, development and exploration activities depend on the availability of adequate infrastructure. Reliable roads, bridges and power sources are important factors that affect capital and operating costs. Sabotage, government or other interference in the maintenance or provision of such infrastructure could adversely affect the Company's operations, financial condition and results of operations.

# Enforceability of judgments

Certain directors of the Company reside outside of Canada. As a result, holders of Common Shares may not be able to effect service of process within Canada to such directors, or to enforce Canadian court judgments obtained against such directors in jurisdictions outside of Canada, including those predicated upon the civil liability provisions of applicable Canadian securities laws. Furthermore, it may be difficult for the holders of Common Shares to enforce, in original actions brought in courts in jurisdictions outside of Canada, liabilities predicated upon Canadian securities laws.

#### Global outbreaks and Coronavirus

The Company's business could be significantly adversely affected by the effects of any widespread global outbreak of contagious disease. A significant outbreak of contagious diseases in the human population could result in a widespread health crisis that could adversely affect the economies and financial markets of many countries, resulting in an economic downtown that could affect demand for the Company's products and likely impact operating results.

#### Russia-Ukraine conflict

In late February 2022, Russia launched a large-scale military attack on Ukraine. The invasion significantly amplified already existing geopolitical tensions among Russia, Ukraine, Europe, NATO and the West, including Canada. In response to the military action by Russia, various countries, including Canada, the United States, the United Kingdom and European Union issued broad-ranging economic sanctions against Russia. Such sanctions (and any future sanctions) and other actions against Russia may adversely impact, among other things, the Russian economy and various sectors of the economy, including but not limited to, financials, energy, metals and mining. Accordingly, the actions discussed above and the potential for a wider conflict could increase financial market volatility and cause severe negative effects on regional and global economic markets. As a result, the Company's business, financial condition, and results of operations may be negatively affected by economic and other consequences from Russia's military action against Ukraine and the sanctions imposed in response to that action.

#### **Qualified Person**

The technical and scientific information in this MD&A has been reviewed 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).

For additional information, please see the technical report titled "Empire State Mines 2024 NI 43-101 Technical Report" with an effective date of December 3, 2024, filed on SEDAR+ at <u>www.sedarplus.ca on January 15, 2025</u>.

#### **NON-GAAP PERFORMANCE MEASURES**

This document includes non-GAAP performance measures, discussed below, that do not have a standardized meaning prescribed by IFRS. The performance measures may not be comparable to similar measures reported by other issuers. The Company believes that these performance measures are commonly used by certain investors, in conjunction with conventional GAAP measures, to enhance their understanding of the Company's performance. The Company uses these performance measures extensively in internal decision-making processes, including to assess how well ESM is performing and to assist in the assessment of the overall efficiency and effectiveness of the mine site management team. The tables below provide a reconciliation of these non-GAAP measures to the most directly comparable IFRS measures as contained within the Company's issued financial statements.

# C1 cash cost per payable pound sold

C1 cash cost is a non-GAAP measure. C1 cash cost represents the cash cost incurred at each processing stage, from mining through to recoverable metal delivered to customers, including mine site operating and general and administrative costs, freight, treatment and refining charges.

The C1 cash cost per payable pound sold is calculated by dividing the total C1 cash costs by payable pounds of metal sold.

# All-In Sustaining Cost (AISC)

AISC measures the estimated cash costs to produce a pound of payable zinc plus the estimated capital sustaining costs to maintain the mine and mill. This measure includes the C1 cash cost and capital sustaining costs divided by pounds of payable zinc sold. AISC does not include depreciation, depletion, amortization, reclamation and exploration expenses.

	Three months ended December 31, Year ended Decem 2024 2023 2024								mb	er 31, 2023		
C1 cash cost per payable			2024 Per				<u>2023</u> Per		2024 Per			2023 Per
pound	Total		pound		Total		pound	Total	pound	Total		pound
Pounds of payable zinc sold (millions) Operating expenses and			22.3				13.9		59.7			62.0
selling costs Concentrate smelting	\$ 13,666	\$	0.62	\$	11,783	\$	0.85	\$ 42,787	\$ 0.72	\$ 46,774	\$	0.75
and refining costs	4,319		0.19		4,232		0.31	11,564	0.19	18,540		0.30
Total C1 cash cost	\$ 17,985	\$	0.81	\$	16,015	\$	1.16	\$ 54,352	\$ 0.91	\$ 65,314	\$	1.05
Sustaining Capital Expenditures	\$ 1,186	\$	0.05	\$	86	\$	0.01	\$ 1,891	\$ 0.03	\$ 2,029	\$	0.03
AISC	\$ 19.171	\$	0.86	\$	16,101	\$	1.17	\$ 56,243	\$ 0.94	\$ 67,343	\$	1.08

### Sustaining capital expenditures

Sustaining capital expenditures are defined as those expenditures which do not increase payable mineral production at a mine site and excludes all expenditures at the Company's projects and certain expenditures at the Company's operating sites which are deemed expansionary in nature. Expansionary capital expenditures are expenditures that are deemed expansionary in nature. The following table reconciles sustaining capital expenditures and expansionary capital expenditures to the Company's additions to mineral, properties, plant and equipment (or total capital expenditures):

	Year ended December 3			
	2024		2023	
Sustaining capital expenditures	\$ 1,891	\$	2,029	
Expansionary capital expenditures	38		618	
Additions to mineral, properties, plant and equipment	\$ 1,932	\$	2,648	

# TITAN MINING CORPORATION Management's Discussion and Analysis

(In thousands of US Dollars, unless otherwise indicated)

# Net Debt

Net debt is calculated as the sum of the current and non-current portions of long-term debt, net of the cash and cash equivalent balance as at the balance sheet date. A reconciliation of net debt is provided below.

	Dec	As at ember 31, 2024	As at December 31, 2023			
Current portion of debt	\$	32,081	\$	35,779		
Non-current portion of debt		-		-		
Total debt	\$	32,081	\$	35,779		
Less: Cash and cash equivalents		(10,163)		(5,031)		
Net debt	\$	21,918	\$	30,748		

# **Free Cash Flow**

		Year ended December 3				
	2024		2023			
Net cash provided (used) by operating activities	\$ 14,290	\$	419			
Less: Capital expenditures	(1,775)		(2,647)			
Free cash flow	\$ 12,515	\$	(2,228)			