GRAPHITE ONE INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS

For the three months ended March 31, 2024

As of May 29, 2024

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The Management's Discussion and Analysis ("**MD&A**") of the financial position and results of operations for Graphite One Inc. (the "**Company**" or "**Graphite One**") (TSXV: GPH and OTCQX: GPHOF) should be read in conjunction with the Company's unaudited condensed interim consolidated financial statements for the three months ended March 31, 2024 and the related notes thereto ("**Financial Statements**"). These Financial Statements are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("**IFRS Accounting Standards**"), applicable to the preparation of interim financial statements, including IAS 34 Interim Financial Reporting. For further information on the Company, reference should be made to its public filings on SEDAR+ at www.sedarplus.ca.

This MD&A is prepared by management and approved by the Board of Directors as of May 29, 2024. The information and discussion provided in this MD&A is for the three months ended March 31, 2024, and where applicable, the subsequent period up to the date of this MD&A. All dollar amounts in this MD&A are expressed in United States dollars. Reference to "$" in this MD&A is the US dollar and reference to "CA$" is the Canadian dollar.

Cautionary Statement on Forward-Looking Statements

This MD&A contains "forward-looking information" and "forward-looking statements" (collectively, "**forward-looking statements**") within the meaning of the applicable Canadian securities legislation. All statements, other than statements of historical fact, are forward-looking statements and are based on expectations, estimates and projections as at the date of this MD&A. Any statement that involves discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "budget", "scheduled", "forecasts", "estimates", "believes" or "intends" or variations of such words and phrases or stating that certain actions, events or results "may" or "could", "would", "might" or "will" be taken to occur or be achieved) are not statements of historical fact and may be forward-looking statements. Accordingly, there can be no assurance that forward-looking information will prove to be accurate and forward-looking information is not a guarantee of future performance. Readers are advised not to place undue reliance on forward-looking information.

In this MD&A, forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company at this time, are inherently subject to significant business, economic and competitive uncertainties and contingencies that may cause the Company's actual financial results, performance, or achievements to be materially different from those expressed or implied herein. Some of the material factors or assumptions used to develop forward-looking statements include, without limitation, the uncertainties associated with regulatory and permitting considerations, financing of the Company and other activities, exploration, development and operation of mining properties and the overall impact of misjudgments made in good faith in the course of preparing forward-looking information.

Forward-looking statements are based on certain assumptions that the Company has made in respect thereof as at the date of this MD&A regarding, among other things: economic and operating conditions, including commodity prices, interest rates, exchange rates, and inflation; the changes in market activity and growth will be consistent with industry activity in Canada and the U.S. and growth levels in similar phases of previous economic cycles; the ability of the Company to complete the feasibility study and in the timing as anticipated; anticipated sources of funding being available to the Company on terms favourable to the Company; the success of the Company's operations and growth prospects; the Company's competitive position, operating costs remaining substantially unchanged; that counterparties comply with contracts in a timely manner; that the Company will be able to enter into the material agreements that it is currently anticipating with respect to a third party for a technology licensing, consulting and supply agreements for the design and construction of a graphite anode manufacturing plant and with Lab 4 Inc. regarding a battery materials recycling facility; that there are no unforeseen events preventing the performance of contracts; that there are no unforeseen material costs in relation to the Company's operations; that prevailing regulatory, tax and environmental laws and regulations apply or are introduced as expected, and the timing of such introduction; increases to the Company's share price and market capitalization over the long term; the Company's ability to repay debt, if any, and return capital to shareholders; the Company's ability to obtain and retain qualified personnel (including those with specialized skills and knowledge), technology and equipment in a timely and cost-efficient manner; the Company's ability to access capital and insurance; operating and borrowing costs, including costs associated with the acquisition and maintenance of equipment and property; an increased focus on ESG, sustainability and environmental considerations in the mining industry; the impacts of climate-change on the Company's business; the current business environment remaining substantially unchanged; future acquisition and maintenance costs; the Company's ability to achieve its ESG and sustainability targets and goals and the costs associated therewith; and other risks and uncertainties described in the AIF and from time to time in filings made by the Company with securities regulatory authorities.

It is important to note that:

- unless otherwise indicated, forward-looking information in this MD&A describes the Company's expectations as of the date of this MD&A.
- readers are cautioned not to place undue reliance on these statements as the Company's actual results, performance or achievements may differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements if known or unknown risks, uncertainties or other facts affect the Company's business, or if the Company's estimates or assumptions prove inaccurate. Therefore, the Company cannot provide any assurance that forward-looking statements will materialize.
- The Company assumes no obligation to update or revise any forward-looking statement, whether as a result of new information, future events or any other reason except as required by law.

Investors are urged to read the Company's filings with the Canadian securities regulatory agencies which unless specifically incorporated herein are not part of this MD&A; these filings can be viewed online at www.sedarplus.ca.

For a description of material factors that could cause the Company's actual results to differ materially from the forward-looking statements in this MD&A, please see "Mining Risks" and "Business Risks."

Nature of Operations

The Company is focused on developing its Graphite One Project (the "**Project**"), aimed at making the Company the dominant American producer of battery anode materials integrated with a graphite resource. The Project is envisioned as a vertically integrated enterprise to mine, process, and manufacture anode materials for the electric vehicle lithium-ion battery market. Management's current plan is for graphite to be mined from the Company's Graphite Creek Property (the "**Proposed Mine**"), situated on the Seward Peninsula about fifty-five (55) kilometers (37 miles) north of Nome, Alaska, (the "**Property**") to be processed into concentrate at a mineral processing plant located adjacent to the mine (the "**Graphite Creek Project**"). The resulting graphite concentrate would be shipped to the second link in the Company's proposed supply chain solution: a manufacturing or secondary treatment plant (the "**STP**") where anode materials and other value-added graphite products would be manufactured. With the Company's commitment to locate the STP in the U.S., the Company would provide a 100% U.S.-based advanced graphite materials supply chain. On October 14, 2022, the Company filed a Preliminary Feasibility Study ("**PFS**") for the Project on SEDAR+ and began work on a feasibility study. The feasibility study is anticipated to be completed in the fourth quarter of 2024, subject to the Company obtaining financing.

Highlights

Warrant Incentive Program

On February 20, 2024, the Company commenced the amendment of an aggregate 11,955,677 outstanding common share purchase warrants (the "**Warrants**") under a warrant incentive program (the "**Warrant Incentive Program**") whereby the exercise prices of the Warrants were reduced to CA$1.00 per common share commencing on the date of TSX Venture Exchange ("**TSXV**") approval for a period of 30 days (the "**Reduced Term**"). The exercise price for any Warrants not exercised during the Reduced Term reverted to the original exercise price.

For each Warrant exercised during the Reduced Term, the Company offered to issue, at no additional cost, one common share purchase warrant (a "**Sweetener Warrant**") with an exercise price of CA$1.00 per common share that expires at the earlier of: (i) three (3) years from the date of issuance; and (ii) 30 days, at the Company's option, if for any ten (10) consecutive trading days the closing price of the Company's common shares on the TSXV equals or exceeds CA$1.20.

On April 1, 2024, the Company closed the Warrant Incentive Program receiving aggregate gross proceeds of $3,794,348 (CA$5,130,873), which were received prior to March 31, 2024, from the exercise of 5,130,873 outstanding Warrants. The exercise price on the remaining 6,824,804 Warrants that were not exercised during the Reduced Term reverted to the original terms as they existed prior to the Warrant Incentive Program. In connection with the exercise of the Warrants, the Company issued an aggregate of 5,130,873 Sweetener Warrants to the holders who exercised such Warrants.

Department of Defense Grant Revised Cost-Share Agreement

On May 17, 2024, the Company entered into a revised cost-share agreement with the Department of Defense ("**DoD**") to adjust the DoD's share of expenditures associated with the feasibility study from 50% to 75% based on a revised contract value of $49.8 million. The DoD's maximum share of the expenditures is now $37.3 million.

Ohio Land Lease

On March 15, 2024, the Company's wholly owned subsidiary, Graphite One (Alaska) Inc. ("**G1 Alaska**") selected Ohio's "Voltage Valley" as the site of the Company's graphite anode manufacturing plant by entering into a cancelable land lease agreement for a 50-year term, contingent on certain future events, including financing, with an option to purchase. The Company has a right to terminate the lease at any point in time during the first 18 months from the date of entering into the lease. After this 18-month period, certain contingent events will also enable the Company to terminate the lease.

Subject to financing and other contingent events, the Company's plan for the Ohio facility, once built, will initially manufacture synthetic graphite anode active materials. Production of natural graphite anode active materials will be added as soon as feedstock from the Proposed Mine near Nome, Alaska is available.

Sunrise Termination

On January 17, 2024, the Company delivered a termination notice pursuant to the memorandum of understanding ("**MOU**") originally entered into between the Company and Great Sunshine (Guizhou) New Energy Material Co. Ltd. ("**Sunrise**") on January 7, 2022. Under the MOU, Sunrise was to provide their expertise and technology for the design, construction, and operation of a proposed U.S. based graphite anode active material facility to produce artificial and natural graphite materials.

Following the termination of the MOU, the Company is pursuing other opportunities to partner with third parties that have the expertise and technology to build an advanced graphite materials manufacturing facility in the United States.

Drill Program Results

On January 8, 2024, the Company released the final set of assay results from the Company's 2023 summer drilling program, which marked the largest exploration program in the Company's history and put Graphite One on track to accelerate the completion of a National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("**NI 43-101**") compliant feasibility study.

The Company had completed the 2023 summer drilling program with 57 holes drilled totaling 8,736 meters (28,661 ft), including 5 geotechnical holes, and received the assay results on the initial 13 holes.

Graphite One Project

The following table summarizes the net Project expenditures for the three months ended March 31, 2024:

Site Preparation, Drilling and Camp Operations	$	220,354
Project Management and Administration		567,566
Environmental Studies		277,773
Engineering		466,870
Geological Consulting		15,619
Capitalized Depreciation		76,160
Assays and Metallurgy		191,551
Capitalized Share-Based Payments		103,520
Community Consultation and Meetings		35,126
Government Grants		(1,137,917)
Graphite Creek expenditures		**816,622**
Secondary Treatment Plant Project Costs		212,519
Total Graphite Creek and other capitalized expenditures	**$**	**1,029,141**

The Project and secondary treatment plant projects are integral components of the feasibility study.

On January 8, 2024, the Company released the final set of assay results from the Company's 2023 summer drilling program. Select drill holes with significant graphite mineralization include:

- 23GC110 returned **9.40 m of 13.87% Cg** from 10.36 m
- 23GC127 returned **6.48 m of 19.02% Cg** from 47.4 m and **10.14 m of 12.3% Cg** from 61.56 m
- 23GC115 returned **11.92 m of 7.07% Cg** from 53 m
- 23GC103 returned **9.90 m of 7.7% Cg** from 0.1 m
- 23GC105 returned **6.00 m of 12.54% Cg** from 107 m

Summary of additional 2023 assay results with notable intercepts:

Hole ID	Intercept	From (m)	To (m)	Length (m)	Length (ft)	C-Graphite (%)	Containing
23GC101	1	96.47	104.00	7.53	24.7	9.67	2.00 m @ 12.55%
23GC103	1	0.10	10.00	9.90	32.5	7.70	
23GC105	1	62.97	72.00	9.03	29.6	6.64	
23GC105	2	107.00	113.00	6.00	19.7	12.54	3.00 m @ 15.30%
23GC106	1	23.00	29.00	6.00	19.7	7.47	
23GC106	2	84.00	91.00	7.00	23.0	9.53	2.00 m @ 12.15%
23GC109	1	21.64	28.00	6.36	20.9	7.75	
23GC110	1	10.36	19.76	9.40	30.8	13.87	3.51 m @ 25.16%
23GC110	2	52.15	58.97	6.82	22.4	9.69	2.85 m @ 14.45%
23GC114	1	83.82	90.00	6.18	20.3	9.71	
23GC115	1	53.00	64.92	11.92	39.1	7.07	
23GC122	1	84.00	90.00	6.00	19.7	7.67	
23GC127	1	47.40	53.88	6.48	21.3	19.02	3.59 m @ 29.92%
23GC127	2	61.56	71.70	10.14	33.3	12.30	6.95 m @ 13.50%

Parameters: Notable interval defined as > 6% Graphite, Minimum Interval = 6 m, Maximum length of internal dilution = 1.5 m

Technical Disclosure/Qualified Person

Mr. Rob Retherford, P. Geo with Alaska Earth Sciences, Inc. provided oversight of the 2023 drilling and sampling program. Mr. Retherford is a Qualified Person as defined under NI 43-101 and has reviewed and approved the technical content of this summary.

QA/QC Program Applied

Graphite One maintains a rigorous QA/QC program with respect to the preparation, shipping, analysis and checking of all samples and data from the Property. Quality control for drill programs at the Company's projects covers the complete chain of custody of samples, including verification of drill hole locations (collar surveys and down-hole directional surveys), core handling procedures (logging, sampling, sample shipping) and analytical-related work, including duplicate sampling, "check analyses" at other laboratories and the insertion of standard and blank materials. The QA/QC program also includes data verification procedures.

Overall Performance and Results of Operations

The Company has generated no operating revenue to date. The Company relies on the issuance of common shares, debt, and more recently, government grants, to finance exploration on its exploration and evaluation property, and to provide general operating working capital. Most of the Company's expenditures related to the Project are reflected in the Financial Statements as exploration and evaluation property.

Selected Quarterly Financial Information

The following table summarizes selected quarterly financial information as at and for the three months ended March 31, 2024 and 2023:

	2024	2023
Current assets ($)	$ 5,041,006	$ 1,896,234
Exploration and evaluation property ($)	58,713,027	51,016,720
Total assets ($)	65,069,355	53,961,577
Current liabilities ($)	2,862,832	1,230,639
Net loss for the three months ended March 31, 2024 and 2023	1,195,447	2,035,983
Basic and diluted loss per share ($)	0.01	0.02
Weight average number of common shares outstanding	132,283,348	116,042,514
Exploration and evaluation expenditures ($)	$ 1,411,059	$ 3,958,669

Results of Operations

Net loss for the three months ended March 31, 2024 was $1,195,447, a decrease of $840,536 compared to a net loss of $2,035,983 for the same period in 2023. The decrease in the net loss was due primarily to no digital marketing was spent during the current quarter (-$609,796), salaries (-$116,008) and insurance (-$34,944) were capitalized to the Graphite One Project and the foam fire suppressant project and lower share-based payments (-$178,972), which was due primarily to the timing of the grant of 2024 equity awards. These decreases were partially offset by a $112,439 increase in professional fees as there was a significant amount of legal fees incurred in the area of general corporate matters, implementation and execution of the Warrant Incentive Program, and legal review for the Ohio lease transaction.

Operating Expenses

	Three months ended March 31, 2024	2023	Increase (decrease)
Expenses			
Management fees and salaries	$ 202,996	$ 325,643	$ (122,647)
Marketing and investor relations	106,318	716,114	(609,796)
Consulting and advisory fees	64,498	79,769	(15,271)
Office and administration	77,044	107,714	(30,670)
Professional fees	144,552	32,113	112,439
Share-based payments	585,515	764,487	(178,972)
	$ 1,180,923	$ 2,025,840	$ (844,917)

Management fees and salaries

Management fees and salaries for the three months ended March 31, 2024 decreased $122,647 to $202,996 compared to $325,643 for the same period in 2023. The decrease was due primarily to allocating a portion of salaries ($116,008) to the projects due to increased time spent on the projects in the quarter.

Marketing and investor relations

Marketing and investor relations for the three months ended March 31, 2024 decreased $609,796 to $106,318 compared to $716,114 for the same period in 2023. The decrease was largely attributed to no digital marketing campaigns during the quarter compared to $570,290 spent on such campaigns in 2023.

Office and administration

Office and administration for the three months ended March 31, 2024 decreased $30,670 to $77,044 compared to $107,714 for the same period in 2023. The decrease was primarily attributable to the direct allocation of commercial liability insurance to the Graphite Creek Project.

Professional fees

Professional fees for the three months ended March 31, 2024 increased $112,439 to $144,552 compared to $32,113 for the same period in 2023. The increase was largely attributable to the increased volume of commercial activities that required legal review.

Share-based payments

Share-based payments for the three months ended March 31, 2024 decreased $178,972 to $585,515 compared to $764,487 for the same period in 2023. The decrease was due primarily to the absence of certain equity awards that had vested and were fully amortized at the end of 2023 and amortizing the fair value of the 2024 equity awards beginning after the March 19, 2024 grant date.

Summary of Quarterly Results

The following table is a summary of quarterly results for the Company for the eight most recently completed quarters:

Quarter ended	Mar 31 2024	Dec 31 2023	Sep 30 2023	June 30 2023
Net loss ($)	1,195,447	2,320,157	1,892,548	2,203,280
Basic and diluted loss per share ($)	0.01	0.02	0.01	0.02

Quarter ended	Mar 31 2023	Dec 31 2022	Sep 30 2022	June 30 2022
Net loss ($)	2,035,983	1,765,431	2,142,604	1,011,753
Basic and diluted loss per share ($)	0.02	0.02	0.02	0.01

Net loss for the first quarter of 2024 decreased $1,124,710 to $1,195,447 compared to a $2,320,157 net loss for the fourth quarter of 2023. The decrease was mainly attributed to decreased executive compensation costs, as there was an absence of a provision for short-term incentive awards that were present in the fourth quarter of 2023, as well as lower share-based payments as certain equity awards had fully vested in the previous quarter.

The net loss for the fourth quarter of 2023 increased $427,609 to $2,320,157 compared to a $1,892,548 net loss for the third quarter of 2023. The increased net loss was primarily due to a provision for short-term incentive awards in the fourth quarter.

The net loss for the third quarter of 2023 decreased $310,732 to $1,892,548 compared to a $2,203,280 net loss for the second quarter of 2023. The decrease in the net loss was due primarily to lower digital marketing expenses.

The net loss for the second quarter of 2023 increased $167,296 to $2,203,279 compared to a $2,035,983 net loss for the first quarter of 2023. The increase in the net loss quarter-over-quarter was due primarily to higher digital marketing expenses, legal fees and share-based payments.

Liquidity, Capital Resources and Going Concern

The Financial Statements have been prepared on a going concern basis which assumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for at least twelve months from March 31, 2024.

As at March 31, 2024, the Company had cash and cash equivalents of $3,528,186 (December 31, 2023: $1,824,331), and a working capital of $2,178,174 (December 31, 2023: $74,499). The increase in cash and cash equivalents and improved working capital was due to the Company receiving $3,794,348 from the exercise of 5,130,873 Warrants which closed on April 1, 2024.

The Company has incurred losses since inception and has not generated any cash inflows from the operations. Cash used in operating activities for the three months ended March 31, 2024 decreased $981,225 to $649,075 compared to $1,630,300 for the same period in 2023 due primarily to $116,008 of salaries and $34,944 of insurance were capitalized to the feasibility study and the foam fire suppressant project, and a $609,796 decrease in spending on digital marketing campaigns.

For the three months ended March 31, 2024, the Company submitted claims to the DoD totaling approximately $1.1 million for reimbursements under the terms of a DoD Technology Investment Grant (the "**Grant**") of up to $37.5 million of which approximately $0.9 million was outstanding. The outstanding balance was received subsequent to March 31, 2024.

On March 19, 2024, the Company granted long-term incentive awards for calendar year 2024 to employees, officers, directors and advisors consisting of 2,905,158 stock options (the "**Options**"), 2,376,956 restricted share units ("**RSUs**") and 1,215,778 performance share units ("**PSUs**") pursuant to the terms of the Company's Stock Option Plan and Omnibus Plan.

The Options have an exercise price of $0.93 per share, being the closing price of the Company's shares on the TSXV on March 18, 2024. The Options vest one-third (1/3) on each of the first, second and third anniversary dates from the date of grant and will expire on March 19, 2029.

Each RSU and PSU will convert into one common share of the Company on each vesting date. RSUs granted to management totaling 1,215,778 will vest one-third (1/3) on the first, second, and third anniversary dates from the date of grant and one-quarter (1/4) of the 1,161,178 RSUs granted to directors will vest on March 19, 2025, March 31, 2025, June 30, 2025, and September 30, 2025. The PSUs will vest on the third anniversary date from the date of grant subject the closing price of the Company's common shares on the TSXV for ten consecutive days prior to the vesting date.

On May 17, 2024, the Company granted an aggregate of 900,000 Options to two individuals, who are both directors and officers of the Company (the "**Optionees**"). Each Option is exercisable into one common share in the capital of the Company at an exercise price of CA$0.85 per common share and expires five years following the date of grant. The Options are subject to a three-year vesting period with 300,000 Options vesting on the first, second, and third anniversary from the date of grant.

These Options were issued to replace 900,000 Options exercisable at CA$0.30 per common share, which expired on May 16, 2024 (the "**Expired Options**"). The Optionees agreed to forego the exercise of the Expired Options due to the cash impact to both the Optionees and the Company on a cashless exercise of the Expired Options.

<u>Going Concern</u>

As at March 31, 2024, the Company had a cash balance of $3,528,186 (December 31, 2023: $1,824,331), working capital of $2,178,174 (December 31, 2023: $74,499), and an accumulated deficit of $49,127,102 (December 31, 2023: $47,931,655). The Company has incurred losses since inception and does not generate any cash inflows from operations. For the three months ended March 31, 2024, cash used in operating activities totaled $649,075 (March 31, 2023: $1,630,300) and $1,411,059 (March 31, 2023: $3,958,669) were spent on Project related expenditures. On April 1, 2024, the Company issued 5,130,873 common shares for gross proceeds of $3,794,348 (CA$5,130,873) pursuant to the Warrant Exercise Program at a reduced exercise price of $0.74 (CA$1.00) per share. On May 17, 2024, the Company signed a revised cost share agreement with the DoD to adjust the DoD's share of expenditures associated with the feasibility study from 50% to 75% based on a revised contract value of $49.8 million. The DoD's maximum share of the expenditures is now $37.3 million.

The Company's ability to continue to meet its obligations and conduct its planned exploration and development activities is uncertain and dependent upon the continued financial support of its shareholders and on securing additional financing. Based on projected administrative and Project expenditures for 2024, the Company will require additional financings to continue to operate. There can be no assurance that the Company will be successful in securing adequate funding through additional financings, which gives rise to material uncertainty that may cast significant doubt regarding the going concern assumption and, accordingly, the ultimate appropriateness of the use of accounting principles applicable to a going concern. The Financial Statements do not reflect the adjustments to the carrying values of assets and liabilities and the reported expenses and statement of financial position classifications that would be necessary if the Company were unable to realize its assets and settle its liabilities as a going concern in the normal course of operations for the foreseeable future. These adjustments could be material.

Related Party Transactions and Balances

Relationships	**Nature of the relationship**
Huston and Huston Holdings Corp.	Huston and Huston Holdings Corp. is a private company controlled by Anthony Huston, an officer and director of the Company which provides director and management services to the Company.
Rockford Resources LLC	Rockford is a private company controlled by Patrick Smith, a director of the Company which provides Patrick Smith's services as a director to the Company.
SSP Partners LLC	SSP Partners LLC is a private company controlled by Scott Packman, a director of the Company which provides Scott Packman's services as a director to the Company.
Taiga Mining Company, Inc. ("**Taiga**")	Taiga is a private mining company that owns more than 20% of the common shares of Graphite One. Taiga's owners are Jerry Birch and Kevin Greenfield.

		Three months ended March 31,	
	Nature of Transaction	**2024**	2023
Huston & Huston Holdings Corp.	Management fees	**$ 112,500**	$ 112,500
Rockford Resources LLC	Director fees	**7,500**	7,500
SSP Partners LLC	Director fees	**7,500**	7,500
		$ 127,500	$ 127,500

Amounts owing to other related parties are non-interest bearing, unsecured and due on demand, primarily for payroll obligations. As at March 31, 2024, the Company owed $690,000 (December 31, 2023 - $690,000) to related parties.

On April 1, 2024, as part of the Warrant Incentive Program, Taiga exercised 2,258,957 Warrants at a reduced exercise price of $0.74 (CA$1.00) for gross proceeds of $1,673,203 (CA$2,258,957). In addition, Taiga received 2,258,957 Sweetener Warrants under the Warrant Incentive Program.

Key management and director compensation

Key management are those personnel having the authority and responsibility for planning, directing and controlling the Company and includes the President and Chief Executive Officer, Executive Chair, Chief Financial Officer, four (4) Vice-Presidents and the directors of the Company. During the three months ended March 31, 2024, the Company capitalized $0.5 million of key management compensation to exploration and evaluation property and the foam fire suppressant project.

Compensation paid to key personnel, which include the fees referenced in the above related party transactions table is as follows:

	Three months ended March 31, 2024	Three months ended March 31, 2023
Management fees	$ **112,500**	$ 112,500
Director fees	**30,000**	30,000
Salaries	**437,500**	213,000
Share-based payments	**689,035**	736,023
	$ **1,269,035**	$ **1,091,523**

Financial Risk Management

The Company may be exposed to risks of varying degrees of significance which could affect its ability to achieve its strategic objectives. The main objectives of the Company's risk management processes are to ensure that risks are properly identified and that the capital base is adequate in relation to those risks. The principal risks to which the Company is exposed are described below.

Credit risk

Credit risk is the risk of potential loss to the Company if a counterparty to a financial instrument fails to meet its contractual obligations. The Company's credit risk is primarily attributable to its cash and cash equivalents and receivables.

The Company has assessed its exposure to credit risk on its cash and cash equivalents and government grant receivables and has determined that such a risk is minimal. The majority of the Company's cash are held with a chartered bank in Canada.

Liquidity risk

Liquidity risk is the risk that the Company is not able to meet its financial obligations as they fall due.

As at March 31, 2024, the Company had a working capital balance of $2,178,174 (December 31, 2022: $74,499). On July 17, 2023, the Company was awarded a Grant of up to $37.5 million from the DoD to accelerate the completion of its Graphite Creek feasibility study. On May 17, 2024, the Company signed a revised cost share agreement with the DoD to adjust the DoD's share of expenditures associated with the feasibility study from 50% to 75% based on a revised contract value of $49.8 million. The DoD's maximum share of the expenditures is now $37.3 million.

There can be no assurance that the Company can obtain additional financing on terms acceptable to the Company or at all.

Interest rate risk

Interest rate risk is the risk arising from the effect of changes in prevailing interest rates on the Company's financial instruments.

The Company had $3,528,186 in cash and cash equivalents at March 31, 2024, on which it earns variable rates of interest, and may therefore be subject to a certain amount of risk, though this risk is considered by management to be immaterial.

Foreign currency risk

Foreign currency risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will fluctuate because of changes in foreign exchange rates.

At March 31, 2024, the Company has certain monetary items denominated in United States dollars. Based on these net exposures, a 10% appreciation or depreciation of the United States Dollar would result in an increase or decrease the Company's net loss by $93,839 (December 31, 2023: $24,594).

Fair Values

The carrying values of cash and cash equivalents, amounts receivable, deposits, and trade and other accounts payable approximate their fair values due to their short-term nature or the ability to readily convert to cash.

Critical Accounting Estimates and Judgments in Applying Accounting Policies

Critical accounting estimates and judgment that have the most significant effect on the amounts recognized in the Financial Statements are disclosed in Note 4 of the audited December 31, 2023 financial statements, with the addition of Note 4 of the Financial Statements as at March 31, 2024.

Outlook

The Company's primary focus is to complete the feasibility study on the Project which includes the Graphite Creek Project with its primary processing facilities on the Seward Peninsula in Alaska and the STP in Ohio State. The Company's goal is to become a vertically integrated producer of premium anode materials and other advanced graphite products by creating an integrated American domestic supply chain. The ability of the Company to achieve this is contingent upon its ongoing ability to raise the risk capital necessary to advance its plans.

Planning for the upcoming 2024 summer drilling program will include additional geotechnical drilling for mine planning design. The Company expects to complete the NI-43-101 compliant feasibility study in the fourth quarter of 2024.

Negotiations are ongoing to finalize the terms of definitive agreements with:

- A third party for a technology licensing, consulting and supply agreements for the design and construction of a graphite anode manufacturing plant; and
- Lab 4 Inc. on a technology licensing agreement involving the design, construction, and operation of a battery materials recycling facility.

Risk Factors

Readers of this MD&A should give careful consideration to the information included or incorporated by reference in this document and the Financial Statements and related notes for the three months ended March 31, 2024. For further details of risk factors, please refer to the most recent AIF filed on SEDAR+ at www.sedarplus.ca, the Annual Financial Statements, and the below discussions.

This section does not describe all the risks applicable to the Company, its industry or its business, and is intended only as a summary of certain material risks of significance to this MD&A. If any of the risks or uncertainties set out in the AIF or this MD&A actually occur, the Company's business, financial condition, operating results or share price could be harmed substantially and could differ materially from the plans and other forward-looking statements discussed in this MD&A

Additional risks and uncertainties not presently known to the Company or that the Company currently considers immaterial may also impair its business operations. These risk factors could materially affect the Company's future operating results and could cause actual events to differ materially from those described in forward-looking statements relating to the Company.

Mining Risks

The Company is subject to risks typical in the mining business including uncertainty of success in exploration and development; unusual and unexpected geological formations, possible flooding and other conditions involved in drilling and removal of material, mitigation of possible environmental impacts, and the occurrence of other unexpected hazards. Risks also include the possibility that intended drilling schedules or estimated costs will not be achieved and unexpected fluctuations in the price of materials, supplies and currency exchange rates. The aggregate effect of these factors is impossible to predict with any degree of certainty.

Mineral Processing Risks

The Company is subject to the risks typical in the mineral processing business including uncertainty that intended schedules, timelines, process performance criteria or estimated capital and operating costs will be achieved. There are risks beyond the Company's control, including: currency exchange rates; inflation; levels of interest rates; costs and availability of skilled workers, materials and supplies; global or regional political, economic and banking crises; and transportation and distribution disruptions. The aggregate effect of these factors is impossible to predict with any degree of certainty.

Uninsurable Risks

Mining processing operations involve a high degree of risk. Exploration, development and production operations on mineral properties involve numerous risks, including but not limited to unexpected or unusual geological operating conditions, seismic activity, rock bursts, cave-ins, fires, floods, landslides, earthquakes and other environmental occurrences, and political and social instability, any of which could result in damage to, or destruction of life or property, environmental damage and possible legal liability. Although the Company believes that appropriate precautions to mitigate these risks are being taken, exploration field activities are subject to hazards such as equipment failure or failure of structures, which may result in environmental pollution and consequent liability. It is not always possible to obtain insurance against all such risks and the Company may decide not to insure against certain risks because of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate the Company's future profitability and result in increasing costs and a decline in the value of the Common Shares. While the Company may obtain insurance against certain risks in such amounts as it considers adequate, the nature of these risks is such that liabilities could exceed policy limits or be excluded from coverage. The potential costs that could be associated with any liabilities not covered by insurance or in excess of insurance coverage may cause substantial delays and require significant capital outlays, thereby adversely affecting the Company's business and financial condition.

Business Risks

Natural resources exploration, project development, processing, and transportation; and, product development, processing, production, and marketing all involve a number of business risks, some of which are beyond the Company's control. These can be categorized as operational, market, financial and regulatory risks.

- Operational risks include finding and developing reserves economically; processing minerals competitively into successful products; product deliverability uncertainties; changing governmental law and regulation; hiring and retaining skilled employees and contractors; and conducting operations in a cost effective and safe manner. The Company continuously monitors and responds to changes in these factors and adheres to all regulations governing its operations. Insurance may be maintained at levels consistent with prudent industry practices to minimize risks; however, the Company is not fully insured against all risks nor are all such risks insurable.
- Operational risks also include the timing and successful completion of the Feasibility Study, permitting, construction and start-up.
- Market risks include the demand and prices for graphite and graphite products not achieving expectations and disruptions in transportation and distribution. These and other factors are beyond the Company's control, including levels of inflation and interest rates, the demand for commodities, global or regional political, economic, and banking crises and production rates in competitive producing regions.

- Financial risks include the timely availability of capital and changes in commodity prices, interest rates, inflation, wages and salaries, taxation, and foreign exchange rates, all of which are beyond the Company's control.
- Regulatory risks include delays in regulatory approvals for developments and transactions that the Board of Directors believe to be in the best interest of the Company, increased fees for filings, and the introduction of ever more complex reporting requirements, the cost of which the Company must meet in order to maintain its exchange listing.
- Supply chain risk includes the sourcing of graphite concentrate in the open market as feed stock for the secondary treatment plant ("**STP**") while the Company completes the construction of the Graphite Creek Mine to produce graphite concentrate for the STP.
- Supply chain risk also includes a risk the STP does not produce the quantity and/or quality of the graphite products in the time anticipated.

Negative Operating Cash Flow and Dependence on Third Party Financing

The Company has no source of operating cash flow and there can be no assurance that the Company will ever achieve profitability. Accordingly, the Company is dependent on third party financing to continue exploration activities on the Company's properties, maintain capacity and satisfy contractual obligations. Accordingly, the amount and timing of expenditures depends on the Company's cash reserves and access to third party financings. Failure to obtain such additional financing could result in delay or indefinite postponement of further exploration and development of the Company's Graphite Creek Project or require the Company to sell the Project (or an interest therein).

Uncertainty of Additional Financing

As stated above, the Company is dependent on third party financings, whether through debt, equity, or other means. Although the Company has been successful in raising funds to date, there is no assurance that the Company will be successful in obtaining the required financing in the future or that such financing will be available on terms acceptable to the Company. The Company's access to third party financing depends on a number of factors including the price of graphite, the results of ongoing exploration, the results of the Feasibility Study and any other economic or other analysis, a claim against the Company, a significant event disrupting the Company's business or graphite industry generally, or other factors may make it difficult or impossible to obtain financing through debt, equity, or other means on favorable terms, or at all. As previously stated, failure to obtain such additional financing could result in delay or indefinite postponement of further exploration and development of the Company's Graphite Creek Project or require the Company to sell one or more of its properties (or an interest therein).

Reliance upon Key Management and Other Personnel

The Company relies on specialized skills of management in the areas of mineral exploration, geology and business negotiations and management. The loss of any of these individuals could have an adverse effect on the Company. The Company does not currently maintain key-man life insurance on any of its key employees. In addition, as the Company's business activity continues to grow, it will require additional key financial, administrative, and qualified technical personnel. Although the Company believes that it will be successful in attracting, retaining, and training qualified personnel, there can be no assurance of such success. If it is not successful in attracting, retaining, and training qualified personnel, the efficiency of the

Company's business could be affected, which could have an adverse impact on its future cash flows, earnings, results of operation and financial condition.

Imprecision of PFS and Mineral Resource Estimates

The results of the PFS and the mineral resource figures are estimates, and such estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available. While the Company believes that its mineral resource estimate is well established and reflects management's best estimates, by their nature, mineral resource estimates are imprecise and depend, to a certain extent, upon statistical inferences which may prove unreliable. Should the Company encounter mineralization or formations different from those predicted by past sampling and drilling, resource estimates may have to be adjusted.

These are not the only risks and uncertainties that the Company faces. Additional risks and uncertainties not presently known to the Company or that the Company currently considers immaterial may also impair its business operations. These risk factors could materially affect the Company's future operating results and could cause actual events to differ materially from those described in forward-looking statements relating to the Company.

Outstanding Share Data

The following table summarizes the Company's outstanding share capital as at May 29, 2024:

Common shares issued and outstanding	137,813,342
Restriced share units	8,747,365
Performance share units	1,984,658
Stock options outstanding (weighted average exercise price CA$1.05)	12,230,737
Warrants outstanding (weighted average exercise price CA$1.22)	11,955,677
Broker warrants outstanding (weighted average exercise price CA$1.50)	356,022
Fully diluted	**173,087,801**

Management's Report on Internal Control over Financial Reporting

In connection with National Instrument 52-109 (Certification of Disclosure in Issuer's Annual and Interim Filings) ("**NI 52-109**") adopted in December 2008 by each of the securities commissions across Canada, the Chief Executive Officer and Chief Financial Officer of the Company will file a Venture Issuer Basic Certificate with respect to the financial information contained in the Financial Statements and MD&A.

The Venture Issuer Basic Certification does not include representations relating to the establishment and maintenance of disclosure controls and procedures and internal control over financial reporting, as defined in NI 52-109.

Other Information

Additional information related to the Company is available for viewing on SEDAR+ at www.sedarplus.ca and on the Company's website at www.graphiteoneinc.com.