Graphano Energy Ltd. ("Graphano" or the "Company") was incorporated on October 5, 2020, as a newly formed, wholly owned subsidiary of Manganese X Energy Corp. ("MN"), a public company with its shares listed on the TSX Venture Exchange (the "Exchange") to hold MN's Lac Aux Bouleaux graphite property (the "LAB Graphite Property" or the "Property") in the Province of Quebec, Canada. The intent was to serve as a vehicle for the separate listing on the Exchange (the "Listing") of the shares of Graphano and the spin-out to MN's shareholders of the Property providing greater focus to its further exploration and development as a separate operation, and this has been achieved. The spin-out has been accomplished by way of Planof Arrangement (the "Plan") and MN's shareholders approved the Plan at a shareholders' meeting held April 12, 2021. The Exchange provided its final approval for the Listing, and trading began on September 30, 2021, under the symbol of GEL.

Graphano is a British Columbia registered company with its Registered Office at 1000 - 595 Burrard Street Vancouver, British Columbia V7X 1S8, and it maintains a business office at 120 Carlton Street Suite # 219, in Toronto, Ontario. Its public filings are available at <a href="https://www.SEDARplus.ca">www.SEDARplus.ca</a> and on its own website at <a href="https://www.graphano.com">www.graphano.com</a>.

Graphano's shares trade on the Exchange under the trading symbol **GEL**, on the Frankfurt Stock Exchange as **97GO**, and on the US OTCQB as **GELEF**.

#### **Personnel Considerations**

The Company's Directors are Mr. Nathan Rotstein, Ms Luisa Moreno (Chief Executive Officer), Mr. James Richardson (Chief Financial Officer), Mr. Roger Dahn and Mr. Martin Kepman. Mr. Dahn is qualified to act as a Qualified Person pursuant to the provisions of National Instrument 43-101.

Wasserman Ramsay CPA's have been named by the Board of Directors and shareholders to be the Company's auditors and to report to the Company's shareholders accordingly. Wasserman Ramsay is a firm of Canadian Chartered Public Accountants and is qualified by the Canadian Public Accounting Board to conduct audits of public companies and has been the Company's auditor since incorporation.

The functional and reporting currency of the Company is the Canadian Dollar ("CAD") and all dollar amounts ("\$") herein refer to Canadian Dollars unless otherwise identified.

### Forward Looking Statements

While the Company is not (and does not intend to become) in the practice of making forecasts, it is obliged by the nature and purpose of MD&As to make certain forward-looking statements. All such statements are qualified in their entirety by the Company's claim of "Safe Harbour" for such statements made in good faith.

This MD&A, except for historical information, may contain "forward-looking statements" that reflect Graphano's current expectations and projections about future results. When used in this MD&A, forward-looking statements may be identified by the use of words such as "estimate", "consider", "anticipate", "expect", "objective", "potential", "forecast", "believe", "project", "plan" and similar expressions or variations of such words. Forward-looking

statements are, by their very nature, not guarantees of the Company's future operational or financial performance and these statements may involve known and unknown risks, uncertainties and other factors that may cause the actual level of activity, results, prospects and performance to differ materially from any future levels of activity, results, prospects and performance expressed in, or implied by, these forward looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements and there are no guarantees that any of Graphano's projects will prove to be economic. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this MD&A or as of the date otherwise specifically indicated herein. Due to risks and uncertainties, including the risks and uncertainties referred to elsewhere in this MD&A, actual events may differ materially from current expectations. The Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

## **Company Objective**

It is the Company's intention to be a significant entity in the graphite resource exploration and development business (and potentially other industrial minerals, especially those related to the rapidly expanding field of battery chemistry); and to assemble a significant resource for further development and potential future production.

The LAB and Standard Graphite Properties are the Company's main projects, and there is ongoing exploration work at these properties to establish the magnitude of resources they may contain. The company also has the Dudley and Lac Vert Bouthiller concessions

### **Projects**

#### Lac Aux Bouleaux

The LAB Graphite Property is comprised of 14 mineral claims in one contiguous block totaling 738.12 hectares near the town of Mont-Laurier in southern Québec. The Property was subject to a 2% NSR, but, the Company entered into an agreement with the original vendors of the Property to acquire the whole of the NSR for 153,846 post-consolidation Graphano common shares valued at \$50,000, thereby cancelling the NSR.

The LAB graphite mineralization was discovered in 1957 and passed through several hands prior to being held by TIMCAL until November 2014, but then allowed to lapse. Finally, in 2019, it was acquired by Manganese X Energy Corp., the parent of the Company until the Closing of the Plan of Arrangement transaction.

The LAB Graphite Property is underlain by Precambrian age rocks of the Grenville Series comprised of quartzo feldspathic, garnetiferous paragneiss and limestone / marble beds. Quartzites are the least abundant of rocks in this Series. The igneous rocks which have invaded the metasedimentary sequence consist of gabbros, monzonites, anorthosites and diabase. Paragneiss is generally fine to medium grained with a variety of compositions such as, quartzo-feldspathic gneiss, biotite-garnet gneiss, biotite-garnet-silliminite

gneiss and biotite-hornblende gneiss. All compositional varieties contain graphite.

The LAB Graphite Property lies adjacent to the south of TIMCAL's Lac des Iles graphite mine in Quebec which has been a world class deposit and was producing 25,000 tonnes of graphite annually (which is generally recognized to be within a few years of exhaustion of its resource). There are several graphite showings and past producing mines in its vicinity. Graphite is commonly found in the Grenville Province rocks throughout this region and has been commercially mined from a number of deposits located between Mont-Laurier in the north and the Ottawa River to the south.

As indicated in the most recent National Instrument 43-101 technical report (dated June 8, 2021), in the Qualified Person's opinion, the character of the LAB Graphite Property is sufficient to merit a follow-up work program which is now being diligently pursued (see press releases on SEDAR and www.graphano.com).

#### Standard Graphite

The Standard Project Option Agreement covers six claims totaling 355 hectares located 32 km northeast of the Company's Lac Aux Bouleaux graphite project. At the closing of the Option Agreement the Vendor received 50,000 common shares of Graphano. On the first anniversary of the Option Agreement the Vendor will receive 50,000 additional shares of Graphano and on the second anniversary the Vendor will receive 100,000 additional shares of Graphano, plus a cash payment in the amount of \$20,000. The Vendor will retain a royalty of 2% net smelter returns on future production from the Standard Mine property. The Company will have the option to purchase the royalty for \$600,000 cash at any time.

The Standard Project includes an historical underground mine. The original operators produced graphite on a small scale between 1923 and 1930 but ceased operations due to the low price of graphite during the 1929 market crash. Moreover, it seems that the small-scale operation and the inefficient milling process known at that time may have led to the failure of the enterprise, but not for lack of ore.

### Dudley and Lac Vert-Bouthillier

The Company has staked two sets of graphite claims, comprising the Dudley and Lac Vert-Bouthillier graphite showings, for a total of 11 claims, covering 600 hectares. The claims are 5 km and 10 km south from the Lac Aux Bouleaux project.

The development of historical graphite deposits as well as new discoveries, all within trucking distance, should allow for resource consolidation to one processing centre at Lac Aux Bouleaux.

## Year ended July 31<sup>st</sup> 2023 Highlights

The year ended July 31st, 2023 brought a series of achievements on several fronts ranging from exploratory work to successful acquisitions and company financing. Readers should refer to the July 31, 2023, audited financial statements for details.

#### **Outlook for 2024 Fiscal Year**

To date, 71 drill holes have been completed on four of the eight zones at LAB and the Standard Mine projects for a total of 5,593 metres. Exploration results at both projects during the year have been exciting with major advancements.

Following the completion of Phase II drilling at the LAB and Standard projects, the Company has engaged qualified engineering firms to determine a timely path to production.

- Mercator Geological Services, a leading Canadian firm on resource estimation, was engaged by the Company to help design future drilling programs and to prepare a resource estimate for the LAB and Standard projects.
- WSP Canada Inc. was engaged to perform an analysis of the permitting requirements to fast track the development of the Company's LAB and Standard projects, assuming an initial lower production quarry model.
- SGS Canada Inc. ("SGS") has been engaged to carry out metallurgical testing for both the Standard Mine and LAB projects. Sample material has been collected from drill core from Standard and 3 of the deposits at LAB (Zone 1, Zone 3 and the historical Orrwell Zone) Samples from each zone will be tested separately and a master composite that mimics a potential mill feed will also be tested. This metallurgical program is the first phase in the development of a flowsheet for the production of graphite anode material for batteries that are used in electric vehicles and other industrial applications. Results are expected in 2024.

The company expects to commence further drilling programs before the end of the year. Depending on the success of the drilling program, a mineral resource estimate may be prepared for the LAB and Standard properties within the next 12 months.

### Statement of Financial Position as at October 31, 2023

	October 31, 2023	July 31, 2023	October 31, 2022
	\$	\$	\$
Current assets	2,344,237	2,445,135	3,493,265
Non-current assets	-	-	-
Total assets	2,344,237	2,445,135	3,493,265
Current liabilities	4,509	24,902	154,270
Shareholder's Equity	2,339,728	2,420,233	3,338,995
Total liabilities and Equity	2,344,238	2,445,135	3,493,265
Working capital	2,339,728	2,420,233	3,338,995

As of October 31, 2023, Graphano had working capital of \$2,339,728 compared to \$2,420,233 at July 31, 2023. The Company and its Board consider this to be a very satisfactory level of funding which should serve the Company very well through the present period of difficult markets. The Company will continue to keep itself focussed on its long term objectives.

Cash flows used in operating activities, for the three months ended October 31, 2023, were -\$66,049 owing primarily to expenditures on Exploration and Evaluation and management fees (2022 – -\$168,072).

Cash flows used in investing activities for the three months ended October 31, 2023, were Nil (2022 – Nil).

Cash flows from financing activities for the three months ended October 31, 2023, were Nil (2022 – Nil). There were no warrants or options exercised in the quarter.

Current assets as at October 31, 2023, include cash and cash equivalents of \$2,014,595 as well as other current assets (receivables, prepayments, and tax receivables) of \$329,643. The Company's policy is to invest cash which is surplus to its immediate needs in Guaranteed Investment Certificates of low risk issuers (specifically the Company's Schedule A Canadian bankers) which are cashable in the event that the Company should need the additional cash for acquisitions or other needs.

Accounts payable and accrued liabilities were \$4,509 as at October 31, 2023. The decrease from previous quarter is due to the Company's reduced drilling program as compared to the previous quarter.

Shareholders' Equity was positive \$2,339,728 at October 31, 2023 compared to \$2,420,233 at July 31, 2023. The detail of the Shareholders' Equity is:

	October 31, 2023	July 31, 2023	October 31, 2022
	\$	\$	\$
Share capital	4,200,129	4,200,129	4,189,129
Reserves	2,310,039	2,310,039	2,310,039
	6,510,168	6,510,169	6,499,168
Deficit	(4,170,440)	(4,089,935)	(3,160,173)
Total shareholders' equity	2,339,728	2,420,234	3,338,995

### **Capital Resources**

It is the intention of the Company to manage its Capital (Shareholders' Equity including Share Capital, Reserves and Deficit) to ensure that it has sufficient resources and liquidity to meet its obligations as they fall due and provide for its future operations for a reasonable time into the future. As such, and given that the Company's prospective revenues amount to only the modest amount that it may be able to earn on cash deposits, the Company is carefully monitoring its resources by comparison to the costs of its exploration plans to establish the extent and quality of its resource on its LAB Graphite Property with a view to potential future production.

#### **Common Shares Issued:**

No shares were issued during the quarter.

## **Share purchase warrants:**

A here was no movement in the number of warrants outstanding and their weighted average exercise prices are as follows:

		Weighted average
	Warrants	exercise price
	#	\$
Balance - July 31, 2022	13,208,942	0.56
		-
Balance - July 31, 2023	13,208,942	0.56
-	-	-
Balance - October 31, 2023	13,208,942	0.56

The fair value of the 12,607,019 (81,945,660 pre-consolidation) warrants at issue date was \$1,424,038, as calculated using a Black-Scholes option pricing model with the following assumptions: 24 months expected average life; share price of \$0.05/.325 post consolidation; strike price of \$0.52;125% expected volatility (based on a peer company, as 'Graphano' does not have volatility history); risk free interest rate of 0.31%; and an expected dividend yield of 0%. The allocation of the total proceeds to share capital and warrant reserve was effected by pro-rating the then current trading value of the shares with the Black-Scholes calculated value of the warrants over the total purchase consideration. During the current year the expiry date of these warrants was extended by 2 years to August 27, 2025. All other terms of the Warrants, including the post-consolidation exercise price, remained the same.

The fair value of the 781,250 warrants at issue date was \$243,280, as calculated using a Black-Scholes option pricing model with the following assumptions: 24 months expected average life; share price of \$0.53; strike price of \$1.10;125% expected volatility (as above); risk free interest rate of 1.04%; and an expected dividend yield of 0%. The allocation of the total proceeds to share capital and warrant reserve was effected by pro-rating the then current trading value of the shares with the Black-Scholes calculated value of the warrants over the total purchase consideration.

The fair value of the 93,750 warrants issued as part of Units with a strike price of \$1.10 was \$24,015, as calculated using a Black-Scholes option pricing model with the following assumptions: 24 months expected average life; share price of \$0.53; strike price of \$1.10; 125% expected volatility (as above); risk free interest rate of 1.04%; and an expected dividend yield of 0% and pro-rated similarly as above.

As at October 31, 2023 and 2022, the outstanding share purchase warrants were as follows:

		Number outstanding	remaining contractual	
	Exercise price	and exercisable	life (years)	<b>Expiry dates</b>
	\$0.52	12,333,942	1.85	Aug 2025
	\$1.10	781,250	0.15	Dec 2023
	\$1.10	93,750	0.15	Dec 2023
Balance - October 31, 2023		13,208,942	1.74	

	Weighted average				
		Number outstanding	remaining contractual		
	Exercise price	and exercisable	life (years)	<b>Expiry dates</b>	
	\$0.52	12,333,942	0.8	Aug 2023	
	\$1.10	781,250	1.2	Dec 2023	
	\$1.10	93,750	1.2	Dec 2023	
Balance - October 31, 2022		13,208,942	0.9		

## Stock options:

The Company has a stock option plan under which it is authorized to grant options to executive officers and directors, employees and consultants enabling them to acquire up to 10% of the issued and outstanding common stock of the Company. As such, the Plan is subject to review and approval by shareholders annually at the Annual General Meeting. Under the plan, the exercise price of each option equals the market price of the Company's stock, not less than the previous day's Closing Price, as calculated on the date of grant. The options can be granted for a maximum term of 5 years and vest at the discretion of the board of directors. The option activity, under the share option plan and information concerning outstanding and exercisable options is as follows:

	No. of Optio	•
	Vested	Exercise Price (\$)
Balance - July 31, 2022	1,500,0	0.50
	-	-
Balance - July 31, 2023	1,500,0	0.50
	-	-
Balance - Oct 31, 2023	1,500,0	0.50

The fair value of the 1,500,000 stock options at the issue date (November 11, 2021) was \$649,591 calculated using the Black-Scholes option pricing model with the following assumptions: 60 months expected average life; share price and strike price of \$0.50; 132.80% expected volatility (estimated based on a peer company, as above) free interest rate of 1.10%; and an expected dividend yield of 0%.

No options were issued or exercised during the quarter.

As at October 31, 2023 and 2022, stock options issued and outstanding are as follows:

	Options granted O	ptions granted Options exercisable		
			Exercise Price (\$)	Expiry dates
	1,500,000	1,500,000	0.50	Nov 2026
Balance - October 31, 2023	1,500,000	1,500,000	0.50	

	Options granted	granted Options exercisable Weighted Averag		
			Exercise Price (\$)	Expiry dates
	1,500,000	1,500,000	0.50	Nov 2026
Balance - October 31, 2022	1,500,000	1,500,000	0.50	

As of the date of this MD&A the share structure of the Company is as follows:

Outstanding Shares	Warrants	Options	Fully Diluted
17,088,268	12,333,942	1,500,000	30,922,210

## **Results of Operations**

The Company currently has no operations generating sales and revenues (beyond the modest amount of interest referred to above). Details for the periods ended October 31, 2023 and 2022 are:

	Three month	ns ended	
For the period ended October 31,	2023	2022	
•	\$	\$	
Revenues	-	-	
Operating Expenses/(Income)			
Expenditures on E&E properties	22,157	32,656	
Management fees	78,000	75,750	
Professional and consulting fees	2,102	10,928	
Foreign exchange loss	100	1,031	
Other operating expenses/(income)	(4,068)	21,964	
Advertising and Marketing	7,341	6,994	
-	105,632	149,323	
Other Expenses/(Income)			
Deferred income tax recovery	-	(27,423)	
Interest income	(26,219)	(23,950)	
Other expenses/(income)	1,092	-	
	(25,127)	(51,373)	
Net loss and comprehensive loss	80,505	97,950	
Loss per share - basic & diluted	0.005	0.006	
Weighted average number of shares outstanding	17,088,268	17,038,268	

## **Summary of Quarterly Information**

Selected quarterly information is presented below:

Quarter ended	Revenues	Net loss and Net comprehensive loss for the period	Net loss per share	Number of shares
	\$	\$	\$	\$
October 31,2023	_	(80,505)	(0.005)	17,088,268
July 31,2023	_	(158,499)	(0.009)	17,088,268
April 30, 2023	_	(132,384)	(0.008)	17,038,268
January 31,2023	_	(638,878)	(0.037)	17,038,268
October 31,2022	-	(97,950)	(0.006)	17,038,268
July 31,2022	_	51,715	0.003	17,038,268
April 30,2022	-	(713,638)	(0.042)	16,988,268
January 31,2022	-	(991,438)	(0.059)	16,903,653
October 31,2021	-	(626,420)	(0.041)	15,154,566
July 31,2021	-	(782,443)	(0.327)	2,393,700

The earlier quarterly results mainly reflect non-recurring initial expenses of the Company while the most recent reflects the costs of the exploration work being undertaken. Results will vary significantly quarter by quarter as exploration programs tend to be episodic rather than continuous or smooth.

## **Summary of Annual Information**

Year ended,	October 31, 2023	July 31, 2023	October 31, 2022	July 31, 2022
	(3 months)	(year end)	(3 months)	(year end)
Net Revenues	-	-	-	-
Total Expenses	80,505	1,027,711	97,950	2,279,781
Net Loss	80,505	1,027,711	97,950	2,279,781
Net Comprehensive Loss	80,505	1,027,711	97,950	2,279,781
Loss per share (Basic)	0.005	0.060	0.006	0.139
Loss per share (Diluted)	0.005	0.060	0.006	0.139
Total Assets	2,344,237	2,445,135	3,493,265	3,630,707
Total Liabilities	4,509	24,902	154,270	193,763

#### **Transactions with Related Parties**

In addition to share issuances to which many of its Insiders were Subscribers, transactions with related parties were as follows:

For the 3 month period ended,	October 31, 2023	October 31, 2022
	\$	\$
Management and other fees paid to companies controlled by Officers and Directors	78,000	75,750
Exploration expenditures paid to an officer as geological consultant to the company	1,050	-
Legal and professional fees paid to a firm of which Company's Secretary is a partner	2,088	-
	81,138	75,750

Amounts payable to related parties included in the non-current liabilities and in the accounts payable and accrued liabilities were as follows:

Included in the accounts payable and accrued liabilities	October 31, 2023	October 31, 2022
	\$	\$
Consulting fees payable to companies controlled by officers and Directors	-	1,978
Owing to a legal firm in which the corporate secretary is a partner	748	-
	748	1,978

## Environmental, Social and Governance ("ESG") Responsibilities

The Company is vitally aware of its responsibilities to its communities and publics, especially those to its indigenous and other neighbours in its communities of operation. It will strive in all ways practicable to foster good relations with its neighbours, take their needs into account in its operations (especially their need for responsible employment) and operate in a context of social responsibility. More detailed statements in these regards will be included in future MD&A's. It is the intention of the Company to establish a formal policy of community support, especially with respect to local indigenous peoples and of diversity (with respect to which, the Company is pleased to identify its current achievements) in the near future. As it does not propose immediately to have Board Committees either for ESG or for Corporate Governance, it intends to delegate these functions to its Audit Committee as it is best representative of its Independent constituencies.

As a potential future supplier of graphite to the industrial world, the Company is immediately aware of the growing need for graphite in the battery industry and the role that will be played in the rapidly growing electrical vehicle market among others. The world's rapidly growing acknowledgement of the realities of global warming and the impacts on climate change suggest that the growth in demand for graphite is likely to exceed population or other normal growth rates long into the future. There is a very significant element of catch up which needs to be addressed and achieved. The Company expects to benefit from this in higher price levels for its graphite needed to encourage the additional supplies required.

The LAB Graphite Property project is located in a forested area and the growing incidence of major forest fires may have an adverse impact on future operations. The Company does not expect to be adversely impacted by rising sea water levels, but local flooding may be of increasing concern and the Company will be monitoring carefully for such potential adverse impacts.

The Company intends to put increasing attention on the needs and wishes of the communities surrounding the LAB property. The possibility of becoming a supplier to the nearby Imerys/Timcal mine which is in production but nearing exhaustion of its ore reserves is one that could become increasingly significant to the Company.

#### **Risk Factors**

Purchasing securities of the Company must be considered highly speculative due to the nature of the Company's business and its present stage of development. A purchase of such securities involves a high degree of risk and should be undertaken only by purchasers whose financial resources are sufficient to assume such risk. The principal risks and uncertainties are summarized below. These do not necessarily comprise all of those that are potentially faced by the Company and are not intended to be presented in any assumed order of priority.

## Management

The Company is dependent upon the personal efforts and commitment of its management, which is responsible for the development of future business. Further, management is comprised of a relatively small number of key officers and consultants, the loss of any of whom could have an adverse effect on the Company's performance.

### Additional Financing

In order to execute the anticipated growth strategy, the Company will require some additional equity and/or debt financing to support on-going operations, to undertake capital expenditures, and/or to undertake acquisitions or other business combination transactions. There can be no assurance that additional financing will be available to the Company when needed or on terms which are acceptable.

#### Environmental Risks

The Company may be liable for environmental contamination and natural resource damages relating to properties that they currently own or operate or at which environmental contamination occurred while or before they owned or operated the properties.

### No Mineral Resources

The Company is in the exploration stage and sufficient work has not been done to define a mineral resource or mineral reserve. There is no assurance given by the Company that continuing work on the property(ies) will lead to defining the mineralization with enough confidence and in sufficient quantities to report it as a mineral resource or a mineral reserve.

#### Regulatory Requirements

Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment or remedial actions.

### Title to Property

There may be challenges to title to the mineral properties in which the Company holds a material interest. If there are title defects with respect to any properties, the Company might be required to compensate other persons or perhaps reduce its interest in the affected property.

#### ESG Risk Factors

The Company intends to put increasing attention on the needs and wishes of the communities surrounding the property(ies). There is no guarantee that the local community

will support activity, and as such, may take actions to have the Company cease operations in the area.

## Factors Beyond the Company's Control

The potential profitability of mineral properties is dependent upon many factors beyond the Company's control. For instance, world prices and markets for minerals are unpredictable, highly volatile, and potentially subject to governmental fixing, pegging and/or controls and respond to changes in domestic, international, political, social and economic environments. Profitability also depends on the costs of operations, including costs of labour, equipment, electricity, environmental compliance or other production inputs. Such costs will fluctuate in ways the Company cannot predict and are beyond the Company's control, and such fluctuations will impact on profitability and may eliminate profitability altogether.

## **Statement of Compliance and Exemption**

The accompanying quarterly financial statements have not been audited nor reviewed by the Company's auditor Wasserman Ramsay.

### **Subsequent Events**

As of December 23, 2023, 875,000 warrants expired unexercised.

### **Off Balance Sheet Arrangements**

The Company has no off balance sheet arrangements.

### Other

The Company maintains its website at <a href="www.graphano.com">www.graphano.com</a> and there will post documents of its primary SEDAR filings, corporate and investor presentations and other useful information.

Management welcomes comments and questions from investors and other members of the public and suggestions for improvement in its communications, presentations and this document.

On behalf of the Board of Directors:

Dr. Luisa Moreno December 28, 2023