Nanoxplore

NanoXplore Inc.

INTERIM MANAGEMENT'S DISCUSSION AND ANALYSIS

For the three and six-month periods ended December 31, 2023 and 2022

[Unless specified otherwise, all amounts are expressed in Canadian dollars]

This interim Management's discussion and analysis ("MD&A") provides a review of NanoXplore Inc.'s operations, performance and financial position for the three and six-month periods ended December 31, 2023 and 2022 and should be read in conjunction with the unaudited condensed interim consolidated financial statements for the three and six-month periods ended December 31, 2023 and 2022. The purpose of this document is to provide information on our activities. The information contained herein is dated as of February 13, 2024, date on which the MD&A was approved by the Corporation's board of directors. You will find more information about us on NanoXplore's website at www.nanoxplore.ca and on SEDAR+ at https://www.sedarplus.ca, including all press releases.

The financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") applicable to the preparation of interim financial statements including IAS 34, Interim Financial Reporting. The Corporation has consistently applied the accounting policies used in the preparation of its IFRS financial statements, including the comparative figures. We occasionally refer to non-IFRS financial measures in the MD&A. See the Non-IFRS measures section for more information. The terms "we", "our", "us", "NanoXplore" or the "Corporation" mean NanoXplore Inc. and its subsidiaries, unless otherwise indicated.

"Q2-2024" and "Q2-2023" refer to the three-month periods ended December 31, 2023 and 2022 respectively, and "YTD 2024" and "YTD 2023" refer to the six-month periods ended December 31, 2023 and 2022 respectively.

1. FORWARD-LOOKING STATEMENTS

This MD&A contains certain forward-looking statements within the meaning of applicable Canadian securities laws with respect to the Corporation. Such forward-looking statements are dependent upon a certain number of factors and are subject to risks and uncertainties. Actual results may differ from those expected. The Corporation considers the assumptions on which these forward-looking statements are based to be reasonable, but it advises the reader that these assumptions with regard to future events, many of which are beyond the Corporation's control, could prove incorrect as they are subject to risks and uncertainties inherent in the Corporation's activities. Management does not assume any obligation to update or revise any forward-looking statements, whether as a result of new information of future events, except when required by the regulatory authorities.

This MD&A contains forward-looking statements. When used in this MD&A, the words "may", "would", "could", "will", "intend", "plan", "anticipate", "believe", "seek", "propose", "estimate", "project", "expect" and similar expressions are intended to identify forward-looking statements. In particular, this MD&A contains forward-looking statements with respect to, among other things, business objectives, expected growth, results of operations, performance, business projects and opportunities and financial results. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. Such statements reflect NanoXplore's then current views with respect to future events based on certain facts and assumptions and are subject to certain risks and uncertainties, including without limitation changes in the risk factors described under the section "*Risks and Uncertainties*" of this MD&A. The forward-looking statements are based on certain key expectations and assumptions made by NanoXplore, including expectations and assumptions concerning availability of capital resources, business performance, market conditions and customer demand. Although NanoXplore believes that the expectations and assumptions on which such forward-looking statements since no assurance can be given that they will prove to be correct.

Many factors could cause NanoXplore's actual results, performance or achievements to vary from those described in this MD&A, including without limitation those listed above, those described under the section "*Risks and Uncertainties*" of this MD&A as well as the assumptions upon which they are based proving incorrect. These factors should not be construed as exhaustive. Should one or more of these risks or uncertainties materialize, or should assumptions underlying forward-looking statements prove incorrect, actual results may vary materially from those described in this MD&A as intended, planned, anticipated, believed, sought, proposed, estimated or expected, and such forward-looking statements should not be unduly relied upon. NanoXplore does not intend, and does not assume any obligation, to update these forward-looking statements except as required by law. The forward-looking statements contained in this MD&A are expressly qualified by these cautionary statements. Forward-looking statements contained in this MD&A about prospective results of operations, financial position or cash flows are based on assumptions about future events, including economic conditions and proposed courses of action, based on NanoXplore's management's assessment of the relevant information currently available. Readers are cautioned that outlook information contained in this MD&A should not be used for the purposes other than for which it is disclosed herein or therein, as the case may be.

2. BUSINESS OVERVIEW

CORPORATION OVERVIEW

NanoXplore is a graphene company, a manufacturer and supplier of high-volume graphene powder for use in transportation and industrial markets. Also, the Corporation provides standard and custom graphene-enhanced plastic and composite products to various customers in transportation, packaging, electronics, and other industrial sectors. The Corporation is also a silicon-graphene-enhanced Li-ion battery manufacturer for the Electric Vehicle and grid storage markets. The Corporation was formed by amalgamation under the *Canada Business Corporations Act* by Certificate of Amalgamation dated September 21, 2017 and is headquartered at 4500 Thimens Blvd, Montreal, QC, Canada.

NanoXplore is listed on the Toronto Stock Exchange ("TSX") and traded under "GRA" and is also listed on the OTCQX and traded under "NNXPF".

The Corporation has the following subsidiaries:

Subsidiaries	Reporting segment
NanoXplore Switzerland Holding SA ("NanoXplore Switzerland"), based in Switzerland, with an equity interest of 100% [2022 – 100%]. NanoXplore Switzerland holds 100% of CEBO Injections SA ("CEBO")	Advanced materials, plastics and composite products
NanoXplore Holdings USA, Inc. ("NanoXplore Holdings USA"), based in the United States, with an equity interest of 100% [2022 – 100%]. NanoXplore Holdings USA holds 100% of NanoXplore USA, Inc. [2022 – 100%] and RMC Advanced Technologies Inc. [2022 – nil].	Advanced materials, plastics and composite products
Sigma Industries Inc. ("Sigma"), based in Canada, with an equity interest of 100% [2022 – 100%]. Sigma has two active wholly owned subsidiaries; Faroex Ltd., based in Manitoba, and Rene Composite Materials Ltd., based in Quebec. Rene Composite Materials Ltd. owns no subsidiary [2022 – one active wholly owned subsidiary; RMC Advanced Technologies Inc., based in the United States, that is now owned by NanoXplore Holdings USA, Inc.]	Advanced materials, plastics and composite
Canuck Compounders Inc. ("Canuck"), based in Canada, with an equity interest of 100% [2022 – 100%]	Advanced materials, plastics and composite products
VoltaXplore Inc. ("VoltaXplore"), based in Canada, with an equity interest of 100% [2022 – 50%]	Battery cells

REPORTING SEGMENTS

The Corporation has two reportable segments based on products:

- Advanced materials, plastics and composite products:
 - Provides standard and custom graphene-enhanced plastic and composite products to various customers in transportation, packaging, electronics, and other industrial sectors.
- Battery cells:

Provides silicon-graphene-enhanced Li-ion battery for the Electric Vehicle and grid storage markets. There are no revenues yet generated from this segment.

Corresponding operations and activities are managed accordingly by the Corporation's Chief Operating Decision Maker. Segmented operating, financial information and labelled key performance indicators are available and used to manage these business segments, review performance and allocate resources.

KEY FINANCIAL HIGHLIGHTS

- Total revenues of \$29,063,024 in Q2-2024 compared to \$31,725,122 in Q2-2023, representing an 8% decrease due to a 6-week strike at one of our major customers;
- Gross margin on revenues from customers of 19.4% in Q2-2024 compared to 17.8% in Q2-2023 and of 19.5% for YTD 2024 compared to 14.9% for YTD 2023;
- Adjusted EBITDA⁽¹⁾ of \$416,000 in Q2-2024 compared to \$141,300 in Q2-2023 for the advanced materials, plastics and composite products;
- Adjusted EBITDA of -\$508,806 in Q2-2024 compared to nil in Q2-2023 for the battery cells segment (VoltaXplore initiative);
- Net adjusted EBITDA in Q2-2024 of -\$92,806 compared to \$141,300 in Q2-2023 and net adjusted EBITDA of -\$541,138 for YTD 2024 compared to -\$1,835,732 for YTD 2023;
- Total liquidity of \$37,880,673 as at December 31, 2023, including cash and cash equivalents of \$27,558,073;
- Total long-term debt of \$7,072,298 as at December 31, 2023, down by \$803,590 compared to June 30, 2023.

BUSINESS HIGHLIGHTS

During the six-month period ended December 31, 2023, the Corporation continued to focus on developing markets for its graphene products and developing down stream pre-mixed additives and products that facilitate such introduction. The Corporation has been successful in integration of GrapheneBlack in multiple streams of products, both internally and externally. The Corporation continues its engagement with many potential customers that are currently validating GrapheneBlack and GrapheneBlack improved masterbatches, concentrates, and products.

5-year strategic and investment plan update

The Corporation has begun executing its 5-year strategic and investment plan that was announced last year. The plan represents an increase in the production capacity of graphene, battery materials and graphene enhanced masterbatch, compound and composite products.

As part as its 5-year strategic and investment plan:

- 1- The Corporation, via VoltaXplore, has agreed on commercial terms for the supply of Li-ion battery cells with a wellknown commercial vehicle OEM. Battery cells will be produced in VoltaXplore's gigafactory starting in 2026. The agreement is for 1 GWh per year for a duration of 10 years following a pricing formula that passes through raw material cost to the customer.
- 2- The Corporation has been awarded three programs from two existing customers, one large commercial vehicle OEM and one industrial equipment manufacturer, to supply exterior parts of vehicles. These components are used in both internal combustion engines and electric vehicles. Production for the first program will begin in 2024 while the start of production for the other two programs is planned for 2026. These programs generally last for a period of 10 years. The Corporation estimates that these programs will generate \$24M in annual sales at mature volumes along with a one-time tooling revenue of \$10M. The Corporation has already secured the related manufacturing equipment to fulfill these orders and the expansion of the North Carolina facility is ongoing.
- 3- The Corporation has been asked by one of our customers to expand its Saint-Clotilde-de-Beauce facility to allow for an expansion of a graphene-enhanced part we currently supply. This expansion, which is part of the lightweighting initiative, will be mostly paid by our customer. Consequently, the previously announced SMC lightweighting initiative capex of \$30M to \$35M will now be in a range of \$25M to \$30M.
- 4- Following further engineering and updated quoting of the equipment related to the Corporation's 5-year strategic and investment plan, required capital for execution of the plan reduced from originally announced \$170M to a range between \$140 to \$150M. The Corporation is planning to finance the required capital mostly through a long-term credit facility and government support.

⁽¹⁾ Adjusted EBITDA is a non-IFRS measure and that reconciliation can be found in the section "Overall Results"

Successful commissioning of graphene-enhanced silicon and anode active material pilot lines

During the six-month period ended December 31, 2023, the Corporation successfully completed the commissioning of two anode material pilot lines, achieving remarkable energy density and product validation.

- 1- The SiG[™] pilot line has a capacity of 100 tons per year. SiG[™] is a graphene enhanced silicon additive for anode materials in Li-ion batteries. Its addition results in enhanced energy density and charging speed.
- 2- The SG-X[™] pilot line, featuring three coated spherical purified graphite (CSPG) anode materials, has a capacity of 200 tons per year. SG-X[™] is a graphite-based anode material with different carbon and graphene coatings used as anode active material for Li-ion batteries.

R&D Improvement: Large-Scale dry process for manufacturing of graphene

The Corporation achieved graphite exfoliation with the successful development of a novel dry graphene manufacturing process. The novel dry graphene manufacturing process has several benefits compared to the traditional liquid exfoliation methods. In terms of capital expenditures, the dry manufacturing process delivers nearly 50% reduction versus the liquid exfoliation process. According to the Corporation's current estimation, a net 8 000 metric tons capacity requires only \$20M in capital expenditures, with a quarter of the current square footage required as opposed to the liquid exfoliation process. NanoXplore has secured key suppliers, ensuring a robust supply chain for the main equipment. Equipment procurement is streamlined with off-the-shelf solutions, with an estimated lead time of 8-12 months. The Corporation is planning to start purchasing the equipment during the 2024 calendar year.

The novel dry graphene manufacturing process could bring NanoXplore within cost parity with traditional carbon additives such as carbon black. The cost reduction results primarily from using low grade waste graphite (which is derived from graphite anode production process) as feedstock. Furthermore, it is highly scalable and operates on a continuous basis, streamlining production efficiency. Superior processability and long-term performance of dry-processed graphene offers a more attractive proposition and will expand the Corporation's total addressable market and accelerates commercial adoption of graphene.

With granted patents already secured, this proprietary technology boosts some key physical properties in polymers by 20% compared to existing products for applications with over 20-yr longevity requirements. The technology finds potential applications in batteries and lightweight composites, enhancing its appeal in cutting-edge industries. This new manufacturing process also opens doors to a myriad of applications, including plastic pipes, geosynthetics, recycled plastics, concrete, drilling fluids, and insulation foams, among others.

The new dry manufacturing process marks a paradigm shift, substantially reducing the environmental footprint associated with traditional graphite exfoliation methods and addresses environmental concerns associated with water usage, as well as eliminating washing and drying steps that contribute to increased costs and environmental impact.

Total liquidity

As at December 31, 2023, the Corporation had total liquidity of \$37,880,673, including cash and cash equivalents and availability under the Corporation's operating loans.

Long-term debt

The total long-term debt decreased from \$7,875,888 as at June 30, 2023 to \$7,072,298 as at December 31, 2023 for a variation of \$803,590. Repayment amounted to \$900,418 during the six-month period ended December 31, 2023.

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INTERIM MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE THREE AND SIX-MONTH PERIODS ENDED DECEMBER 31, 2023 AND 2022

3. OVERALL RESULTS

HIGHLIGHTS

The following table sets out certain highlights of the Corporation's performance for the three and six-month periods ended December 31, 2023 and 2022. Refer to the Corporation's unaudited condensed interim consolidated financial statements for the three and six-month periods ended December 31, 2023 and 2022 for a detailed account of the Corporation's performance for the results presented in the tables below.

In summary:

	Q2-2024 Q2-2023		Variation		Q2-2023 Variation YTD 2024 Y		Variation YTD 2024		Va	riation
	\$	\$	\$	%	\$	\$	\$	%		
Revenues	29,063,024	31,725,122	(2,662,098)	(8%)	57,999,055	58,957,647	(958,592)	(2%)		
Operating loss	(2,563,290)	(1,749,728)	(813,562)	(46%)	(6,563,970)	(7,524,328)	960,358	13%		
Loss	(2,428,388)	(2,422,949)	(5,439)	(0%)	(6,154,466)	(8,347,021)	2,192,555	26%		
Loss per share (Basic and diluted)	(0.01)	(0.01)			(0.04)	(0.05)				
• •										
Non-IFRS Measure *										
Adjusted EBITDA	(92,806)	141,300	(234,106)	(166%)	(541,138)	(1,835,732)	1,294,594	71%		

By reporting segment:

	Q2-2024	Q2-2023		Variation	YTD 2024	YTD 2023	١	/ariation
	\$	\$	\$	%	\$	\$	\$	%
From Advanced materia	als, plastics ar	id composite p	products					
Revenues	29,058,796	31,725,122	(2,666,326)	(8%)	57,972,897	58,957,647	(984,750)	(2%)
Non-IFRS Measure *								
Adjusted EBITDA	416,000	141,300	274,700	194%	586,654	(1,835,732)	2,422,386	132%
From Battery cells								
Revenues	4,228	—	4,228	100%	26,158		26,158	100%
Non-IFRS Measure*								
Adjusted EBITDA	(508,806)		(508,806)	(100%)	(1,127,792)	_	(1,127,792)	(100%)

Results of operations may include certain unusual and other items which have been separately disclosed, where appropriate, in order to provide a clear assessment of the underlying Corporation results. In addition to IFRS measures, management uses non-IFRS measures in the Corporation's disclosures that it believes provide the most appropriate basis on which to evaluate the Corporation's results.

* NON-IFRS MEASURES

This MD&A was prepared using results and financial information determined under IFRS. However, the Corporation considers certain non-IFRS financial measures as useful additional information in measuring the financial performance and condition of the Corporation. These measures, which the Corporation believes are widely used by investors, securities analysts and other interested parties in evaluating the Corporation's performance, do not have a standardized meaning prescribed by IFRS and therefore may not be comparable to similarly titled measures presented by other publicly traded companies, nor should they be construed as an alternative to financial measures determined in accordance with IFRS. Non-IFRS measures include "Adjusted EBITDA".

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INTERIM MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE THREE AND SIX-MONTH PERIODS ENDED DECEMBER 31, 2023 AND 2022

The following table provides a reconciliation of IFRS "Loss" to Non-IFRS "Adjusted EBITDA" for the three and six-month periods ended December 31, 2023 and 2022.

	Q2-2024	Q2-2023	YTD 2024	YTD 2023
	\$	\$	\$	\$
Loss	(2,428,388)	(2,422,949)	(6,154,466)	(8,347,021)
Current and deferred income tax expenses (recovery)	(116,870)	397,369	(343,299)	179,758
Net interest revenues	(18,032)	(58,214)	(47,945)	(2,561)
Share of loss of a joint venture	_	334,066	_	645,496
Gain on disposal of property, plant and equipment	_	_	(18,260)	_
Foreign exchange	(518,778)	(683,939)	53,818	930,101
Share-based compensation expenses	225,416	374,892	527,478	597,724
Non-operational items ⁽¹⁾	40,000	76,000	80,000	76,000
Depreciation and amortization	2,723,846	2,124,075	5,361,536	4,084,771
Adjusted EBITDA	(92,806)	141,300	(541,138)	(1,835,732)
- From Advanced materials, plastics and composite				
products	416,000	141,300	586,654	(1,835,732)
- From Battery cells	(508,806)	_	(1,127,792)	_

The following table provides a reconciliation of IFRS "Loss" to Non-IFRS "Adjusted EBITDA" for the three-month periods ended December 31, 2023 (Q2-2024) and September 30, 2023 (Q1-2024).

	Q2-2024	Q1-2024
	\$	\$
Loss	(2,428,388)	(3,726,078)
Current and deferred income tax recovery	(116,870)	(226,429)
Net interest revenues	(18,032)	(29,913)
Gain on disposal of property, plant and equipment	_	(18,260)
Foreign exchange	(518,778)	572,596
Share-based compensation expenses	225,416	302,062
Non-operational items ⁽¹⁾	40,000	40,000
Depreciation and amortization	2,723,846	2,637,690
Adjusted EBITDA	(92,806)	(448,332)
- From Advanced materials, plastics and composite products	416,000	170,654
- From Battery cells	(508,806)	(618,986)

⁽¹⁾ Non-operational items consist of professional fees mainly due to prospectuses related fees.

RESULTS OF OPERATIONS VARIANCE ANALYSIS - THREE-MONTH PERIODS

Revenues

	Q2-2024	Q2-2023	Q2-2023 Variation		Q1-2024	Variation	
	\$	\$	\$	%	\$	\$	%
Revenues from customers	28,559,390	31,417,369	(2,857,979)	(9%)	28,706,752	(147,362)	(1%)
Other income	503,634	307,753	195,881	64%	229,279	274,355	120%
Total revenues	29,063,024	31,725,122	(2,662,098)	(8%)	28,936,031	126,993	0%

All revenues are coming from the segment of advanced materials, plastics and composite products, except for \$4,228 of other income [Q2-2023 – Nil] from the segment battery cells.

Revenues from customers remained stable, varying from \$28,706,752 in Q1-2024 to \$28,559,390 in Q2-2024.

Revenues from customers decreased from \$31,417,369 in Q2-2023 to \$28,559,390 in Q2-2024. This decrease is mainly due to lower volume representing approximately \$3,000,000 resulting from a 6-week strike at one of our major customers and to lower tooling revenues.

Other income increased from \$307,753 in Q2-2023 to \$503,634 in Q2-2024. It amounted to \$229,279 in Q1-2024. The variation is mainly due to grants received for R&D programs.

Adjusted EBITDA

1) From Advanced materials, plastics and composite products

The adjusted EBITDA improved from \$141,300 in Q2-2023 to \$416,000 in Q2-2024. The variation is explained as follows:

- Higher other income of \$191,653 as explained above; and
- Lower administrative expenses (SG&A and R&D) of \$171,412 mainly due to lower headcounts.

2) From Battery cells

The adjusted EBITDA passed from nil in Q2-2023 to -\$508,806 in Q2-2024. The variation is explained by the administrative expenses (G&A and R&D) of \$513,034 from this new segment.

Loss

The loss remained stable, varying from \$2,422,949 in Q2-2023 to \$2,428,388 in Q2-2024. The variation is mainly explained as follows:

- Higher depreciation and amortization of \$599,771 due mainly to the acquisition of VoltaXplore;
- A decrease in adjusted EBITDA of \$234,106 as explained above;
- Foreign exchange gain of \$518,778 in Q2-2024 compared to \$683,939 in Q2-2023;
- Partially offset by:
 - Current and deferred income tax recovery of \$116,870 in Q2-2024 compared to an expense of \$397,369 in Q2-2023;
 - Share loss of a joint venture of \$334,066 in Q2-2023 compared to nil in Q1-2024 as VoltaXplore is now consolidated in the Corporation's result; and
 - Lower share-based compensation expenses of \$149,476.

Foreign exchange

	Q2-2024	Q2-2024 Q2-2023		Variation Q1-2024		Va	ariation
	\$	\$	\$	%	\$	\$	%
Foreign exchange from operations	739,620	506,372	233,248	(46%)	(338,509)	1,078,129	(318%)
Foreign exchange on derivative							
contracts	(1,258,398)	(1,190,311)	(68,087)	6%	911,105	(2,169,503)	238%
Total foreign exchange	(518,778)	(683,939)	165,161	(24%)	572,596	(1,091,374)	191%

The Corporation had a negative impact on foreign exchange from operations of \$739,620 in Q2-2024 compared to \$506,372 in Q2-2023 and a positive impact of \$338,509 in Q1-2024. This is due to fluctuation of the US rate at the end of each quarter.

The foreign exchange on derivative contracts is a non-realized gain of \$1,258,398 in Q2-2024 compared to \$1,190,311 in Q2-2023 and a non-realized loss of \$911,105 in Q1-2024. The variation is due to the fluctuation of the US rate between the quarters and the level of coverage.

RESULTS OF OPERATIONS VARIANCE ANALYSIS - SIX-MONTH PERIODS

Revenues

	YTD 2024	YTD 2023	Variatio	n
	\$\$		\$	%
Revenues from customers	57,266,142	58,564,536	(1,298,394)	(2%)
Other income	732,913	393,111	339,802	86%
Total revenues	57,999,055	58,957,647	(958,592)	(2%)

All revenues are coming from the segment of advanced materials, plastics and composite products, except for \$26,158 of other income [YTD 2023 – Nil] from the segment battery cells.

Revenues from customers decreased from \$58,564,536 in the last year period to \$57,266,142 in the current period. This decrease is mainly due to lower volume representing approximately \$3,000,000 resulting from a 6-week strike at one of our major customers and to lower tooling revenues.

Other income increased from \$393,111 in the last year period to \$732,913 in the current period. The variation is due to grants received for R&D programs.

Adjusted EBITDA

1) From Advanced materials, plastics and composite products

The adjusted EBITDA improved from -\$1,835,732 in the last year period to \$586,654 in the current period. The variation is explained as follows:

- Gross margin on revenues from customers increased by \$2,446,730 compared to the last year period due to favourable
 product mix, improved productivity and cost control;
- Higher other income of \$313,644 as described above; and
- Partially offset by higher administrative expenses (SG&A and R&D) of \$341,988 mainly due to higher wages, including higher accrued variable compensation.

2) From Battery cells

The adjusted EBITDA passed from nil in the last year period to -\$1,127,792 in the current period. The variation is explained by the administrative expenses (G&A and R&D) of \$1,153,950 from this new segment.

Loss

The loss decreased from \$8,347,021 in the last year period to \$6,154,466 in the current period. The variation is mainly explained as follows:

- An increase in adjusted EBITDA of \$1,294,594 as explained above;
- Foreign exchange loss of \$53,818 in the current period compared to \$930,101 in the last year period;
- Share loss of a joint venture of \$645,496 in the last year period compared to nil in the current period as VoltaXplore is now consolidated in the Corporation's result;
- Current and deferred income tax recovery of \$343,299 in the current period compared to an expense of \$179,758 in the last year period;
- Partially offset by:
 - Higher depreciation and amortization of \$1,276,765 due mainly to the acquisition of VoltaXplore.

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INTERIM MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE THREE AND SIX-MONTH PERIODS ENDED DECEMBER 31, 2023 AND 2022

Foreign exchange

	YTD 2024	YTD 2023	Variati	on
	\$	\$\$		%
Foreign exchange from operations	401,111	(445,806)	846,917	(190%)
Foreign exchange on derivative contracts	(347,293)	1,375,907	(1,723,200)	125%
Total foreign exchange	53,818	930,101	(876,283)	94%

The Corporation had a negative impact on foreign exchange from operations of \$401,111 in the current period compared to a positive impact \$445,806 in the last year period. This is due to fluctuation of the US rate at the end of each quarter.

The foreign exchange on derivative contracts is a non-realized gain of \$347,293 in the current period compared to a non-realized loss of \$1,375,907 in the last year period. The variation is due to the fluctuation of the US rate between the quarters and the level of coverage.

FINANCIAL OUTLOOK

The Corporation expects total revenues of \$130 million for the year ending June 30, 2024.

SUMMARY OF QUARTERLY RESULTS

The table below presents selected financial data for the eight most recently reported quarters. This unaudited quarterly information has been prepared in accordance with IFRS.

		Revenues \$	Loss \$	Basic and diluted loss per share \$	
Q2-2024	December 31, 2023	29,063,024	(2,428,388)	(0.01)	Note 1
Q1-2024	September 30, 2023	28,936,031	(3,726,078)	(0.02)	Note 2
Q4-2023	June 30, 2023	33,318,964	(2,003,549)	(0.01)	Note 3
Q3-2023	March 31, 2023	31,580,560	(2,447,604)	(0.01)	
Q2-2023	December 31, 2022	31,725,122	(2,422,949)	(0.01)	Note 4
Q1-2023	September 30, 2022	27,232,525	(5,924,072)	(0.04)	Note 5
Q4-2022	June 30, 2022	28,280,476	(2,708,675)	(0.02)	Note 6
Q3-2022	March 31, 2022	28,406,750	(4,516,108)	(0.03)	

Note 1 Loss is lower mainly due to a positive impact of foreign exchange on derivative contracts.

Note 2 The revenues were lower due to lower volume. Loss is higher mainly due to lower revenues and a negative impact of foreign exchange on derivative contracts.

Note 3 The revenues were higher due to positive product mix, including graphene enhanced product, and higher volume.

Note 4 The revenues were higher due to higher volume and price increases. Loss was lower due to higher margins and positive foreign exchange on derivative contracts.

Note 5 The loss was higher due to a negative impact of foreign exchange on derivative contracts, lower margin and higher administrative expenses.

Note 6 The loss was lower due to positive product mix, improved productivity and cost control.

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INTERIM MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE THREE AND SIX-MONTH PERIODS ENDED DECEMBER 31, 2023 AND 2022

4. FINANCIAL POSITION, LIQUIDITY AND CAPITAL RESOURCES

CONSOLIDATED FINANCIAL POSITION

	As at December 31, 2023	As at June 30, 2023	Variation	
	\$	\$	\$	Main reasons for significant variation
Accesta				
Assets	07 669 079	26 240 405	(0.650.400)	Refer to section Cash Flows
Cash and cash equivalents Accounts receivable and Contract	27,558,073	36,210,495	(8,652,422)	Refer to section Cash Flows
asset	20,085,632	20,605,741	(520,109)	
Inventory	15,877,777	17,280,115	(1,402,338)	Better inventory management
Right-of-use assets	8,196,712	8,997,822	(801,110)	
Property, plant and equipment, and equipment deposits	63,634,151	62,624,257	1,009,894	Additions mainly related to composite equipment
Intangible assets	13,863,839	14,522,038	(658,199)	oquipmont
Goodwill	1,919,673	1,919,673		
Other assets	3,253,412	3,085,662	167,750	
Total assets	154,389,269	165,245,803	(10,856,534)	
	. ,			
Liabilities and Shareholders' Equity				
Liabilities				
Accounts payable, accrued liabilities and income taxes payable	14,092,376	19,868,734	(5,776,358)	Last payment of balance of purchase price for the acquisition of Canuck, lower inventory level, lower accrued variable compensation and timing in cash payment
Contract liability	3,089,424	1,016,019	2,073,405	Timing in tooling projects
Operating loans	1,575,800	1,478,300	97,500	
Defined benefit liabilities	837,404	572,463	264,941	
Lease liability	13,939,789	15,218,803	(1,279,014)	Mainly due to lease payment
Long-term debt	7,072,298	7,875,888	(803,590)	
Deferred taxes liabilities	2,944,347	2,939,526	4,821	
Total liabilities	43,551,438	48,969,733	(5,418,295)	
Shareholders' Equity				
Share capital	180,741,203	180,308,703	432,500	
Reserve	5,399,640	4,999,662	399,978	
Foreign currency translation reserve	140,905	34,552	106,353	
Deficit	(75,443,917)	(69,066,847)	(6,377,070)	
Total shareholders' equity	110,837,831	116,276,070	(5,438,239)	
Total liabilities and shareholders' equity	154,389,269	165,245,803	(10,856,534)	

CASH FLOWS

	YTD 2024	YTD 2023	Variatio	ion	
	\$	\$	\$	%	
Cash used in operating activities prior to changes in non-cash					
working capital items	(520,383)	(1,833,893)	1,313,510	72%	
Changes in non-cash working capital items	78,525	992,246	(913,721)	(92%)	
Operating activities	(441,858)	(841,647)	399,789	48%	
Financing activities	(2,332,813)	(5,496,513)	3,163,700	58%	
Investing activities	(5,920,352)	(6,340,517)	420,165	7%	
Net effect of currency exchange rate on cash and cash			,		
equivalents	42,601	30,300	12,301	41%	
Net change in cash and cash equivalents	(8,652,422)	(12,648,377)	(3,995,955)	(32%)	

Operating activities

Cash flows used in operating activities prior to changes in non-cash working capital items were \$520,383 in the current period compared to \$1,833,893 in the last year period. The variation is mainly explained by an improvement of the adjusted EBITDA of \$1,294,594.

Changes in non-cash working capital items amounted to \$78,525 in the current period, which is explained as follows:

- An increase of contract liability due to timing in tooling projects;
- A decrease in inventory of \$1,495,912 mainly due to improvements in inventory management;
- A decrease in accounts receivable and contract asset of \$520,109 mainly due to timing in cash receipts; and
- Partially offset by a decrease of accounts payable and accrued liabilities of \$4,206,160 mainly due to the last payment of \$1,000,000 for the balance of purchase price of the acquisition of Canuck, to payment of variable compensation and timing in vendor payments.

Financing activities

Cash flows used in financing activities were \$2,332,813 in the current period compared to \$5,496,513 in the last year period. In the current period, repayment of \$2,637,813 was completed on long-term debt and lease liability. This was offset by stock options exercised for proceeds of \$305,000.

In the last year period, the operating loans decreased by \$3,300,000 and repayment of \$2,537,912 was completed on long-term debt and lease liability. These were offset by stock options exercised for proceeds of \$341,399.

Investing activities

Cash flows used in investing activities were \$5,920,352 in the current period compared to \$6,340,517 in the last year period. In the current period, the Corporation paid \$4,965,952 for capital expenditures, mainly related to additions of composite equipment, and paid \$1,000,000 for the last payment of the balance of purchase price related to the acquisition of Canuck.

In the last year period, the Corporation paid \$5,342,095 for capital expenditures, mainly related to the acquisition of the assets of XG Sciences and paid \$1,000,000 related to the balance of purchase price related to the acquisition of Canuck.

USE OF PROCEEDS

Use of Proceeds Reconciliation of February 2022

On February 24, 2022, the Corporation raised gross proceeds of \$30,001,200 by issuing a total of 6,522,000 Common Shares pursuant to a short form prospectus offering (the "February 2022 Offering"). The net proceeds of the February 2022 Offering were \$27,996,232, after deduction of underwriters' fees and other expenses.

The net proceeds of the February 2022 Offering are expected to be used by the Corporation within 24 months following the closing of the February 2022 Offering, as follows.

	Use of proceeds as described in the Short Form Prospectus dated February 24, 2022	Revised estimate of the use of proceeds as of the date hereof
Acquisition of assets or companies, partnerships and General corporate purposes	27.996.232	27,996,232
Total	27,996,232	27,996,232

The Corporation had negative cash flows from operating activities prior to changes in non-cash working capital items for the year ended June 30, 2023 and for the six-month period ended December 31, 2023. The Corporation cannot guarantee if it will have positive or negative cash flow from operating activities in future periods. To the extent that the Corporation has negative cash flows in any future period, certain of the proceeds from the February 2022 Offering or future offerings may be used to fund such negative cash flows from operating activities.

LIQUIDITY AND CAPITAL RESOURCES

Throughout the COVID-19 pandemic, the Corporation has taken controlled and measured actions to preserve liquidity, including flexing and reducing its cost base, eliminating discretionary spending across its global footprint and delaying capital spending where and when appropriate. As at December 31, 2023, the Corporation had total liquidity of \$37,880,673, including cash and cash equivalents and availability under the Corporation's operating loans.

Management believes that the Corporation has sufficient funds to meet its obligations, operating expenses and some development expenditures for the ensuing 12 months as they fall due. The Corporation's ability to continue its development activities is dependent on the impact of COVID-19, supply chain issues and the speed of introduction of graphene products into different industries. Although the advanced materials, plastics and composites products segment has generated revenues, the graphene commercial activity is still in the commercial introduction stage and, as a result, the Corporation could be dependent on external financing to fund its continued development program, if the commercial introduction of the graphene is delayed. However, regarding the battery cells segment, the Corporation is dependent on external financing before it can build the production facility and commercialize its products. Discussions to secure financing are progressing well and we expect to complete the financing during this financial year 2024. The Corporation's main sources of funding have been the issuance of equity securities for cash, debt, cash flow from operations and funds from the government of Quebec with respect to R&D tax credits and other programs.

OFF-BALANCE SHEET ARRANGEMENTS

As of the date of this MD&A, the Company did not have any off-balance sheet arrangements, except for the commitment disclosed in the unaudited condensed interim consolidated financial statements for the three and six-month periods ended December 31, 2023 and 2022.

Management believes that the Company will be able to meet its obligations with cash on hand, cash flows from operations and drawdowns under existing credit facilities.

FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

For a detailed description of the financial instruments and risk management associated with the Corporation and its activities, please refer to the consolidated financial statements for the years ended June 30, 2023 and 2022. These identified financial instruments and risks are consistent through the periods.

OUTSTANDING SHARES

As at February 12, 2024, the Corporation has:

- o 170,508,431 common shares issued and outstanding;
- 2,942,616 options outstanding with expiry dates ranging between May 24, 2024 and January 29, 2034 with exercise prices between \$1.27 and \$6.44. If all the options were exercised, 2,942,616 shares would be issued for cash proceeds of \$8,511,749.

5. RELATED PARTY TRANSACTIONS

For a detailed description of all related party transactions, please refer to the note 7 "Related party transactions" in the unaudited condensed interim consolidated financial statements for the three and six-month periods ended December 31, 2023 and 2022.

6. **RISKS AND UNCERTAINTIES**

The operations of the Company are speculative due to the high-risk nature of its business, which is the acquisition, financing, technology and manufacturing. 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 information relating to the Company.

For a detailed description of risks and uncertainties, refer to the management's discussion and analysis for the years ended June 30, 2023 and 2022.

7. ACCOUNTING POLICIES

CRITICAL ACCOUNTING JUDGMENTS AND ESTIMATES

The preparation of consolidated financial statements requires management to make estimates and judgments about the future. Management periodically reviews these estimates, which are based on historical experience, changes in the business environment and other factors, including expectations of future events, that management considers reasonable under the circumstances. The estimates involve judgments we make based on the information available. However, accounting estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

The Corporation based its assumptions and estimates on parameters available when the consolidated financial statements were prepared. However, existing circumstances and assumptions about future developments may change due to market events or to circumstances beyond the Corporation's control. Such changes are reflected in the assumptions when they occur. This discussion addresses only those estimates that we consider important based on the degree of uncertainty and the likelihood of a material impact if we had used different estimates. There are many other areas in which we use estimates about uncertain matters.

For a detailed description of the critical accounting judgments and estimates associated with the Corporation and its activities, please refer to the section "Significant management estimates and judgments in applying accounting policies" in the note 2 in the consolidated financial statements for the years ended June 30, 2023 and 2022. The Corporation was not required to make significant judgments, estimates and assumptions in areas other than those mentioned in the consolidated financial statements for the years ended 2022.

FUTURE CHANGES IN ACCOUNTING POLICIES

Certain standards and amendments to existing standards have been published, and their adoption is mandatory for future accounting periods. Refer to the note 3 in the consolidated financial statements for the years ended June 30, 2023 and 2022 and to the note 2 in the unaudited condensed interim consolidated financial statements for the three and six-month periods ended December 31, 2023 and 2022 for the details of these standards and amendments.

8. CONTROLS AND PROCEDURES

In accordance with National Instrument 52-109 of the Canadian Securities Authorities, the Corporation has filed certificates signed by the Chief Executive Officer and the Chief Financial Officer that, among other things, attest to the design of the disclosure controls and procedures ("DC&P") and the design and effectiveness of internal controls over financial reporting.

No changes were made to the Corporation's internal controls over financial reporting during Q2-2024 that have materially affected, or are reasonably likely to materially affect, internal controls over financial reporting.

Limitation on Scope of Design

The scope of design of internal controls over financial reporting and DC&P excluded the controls, policies, and procedures of VoltaXplore, which was acquired on March 24, 2023. VoltaXplore's contributions to the Corporation's consolidated statements of loss and comprehensive loss for the six-month period ended December 31, 2023 was 0% of total revenues. Additionally, as at December 31, 2023, VoltaXplore's assets and liabilities represented approximately 5% and 4%, respectively, of the Corporation's consolidated assets and liabilities. The amounts recognized for the net assets acquired as at the date of this acquisition are described in Note 3a of the unaudited condensed interim consolidated financial statements for the three and six-month periods ended December 31, 2023 and 2022.



Performance Through Carbon Chemistry

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