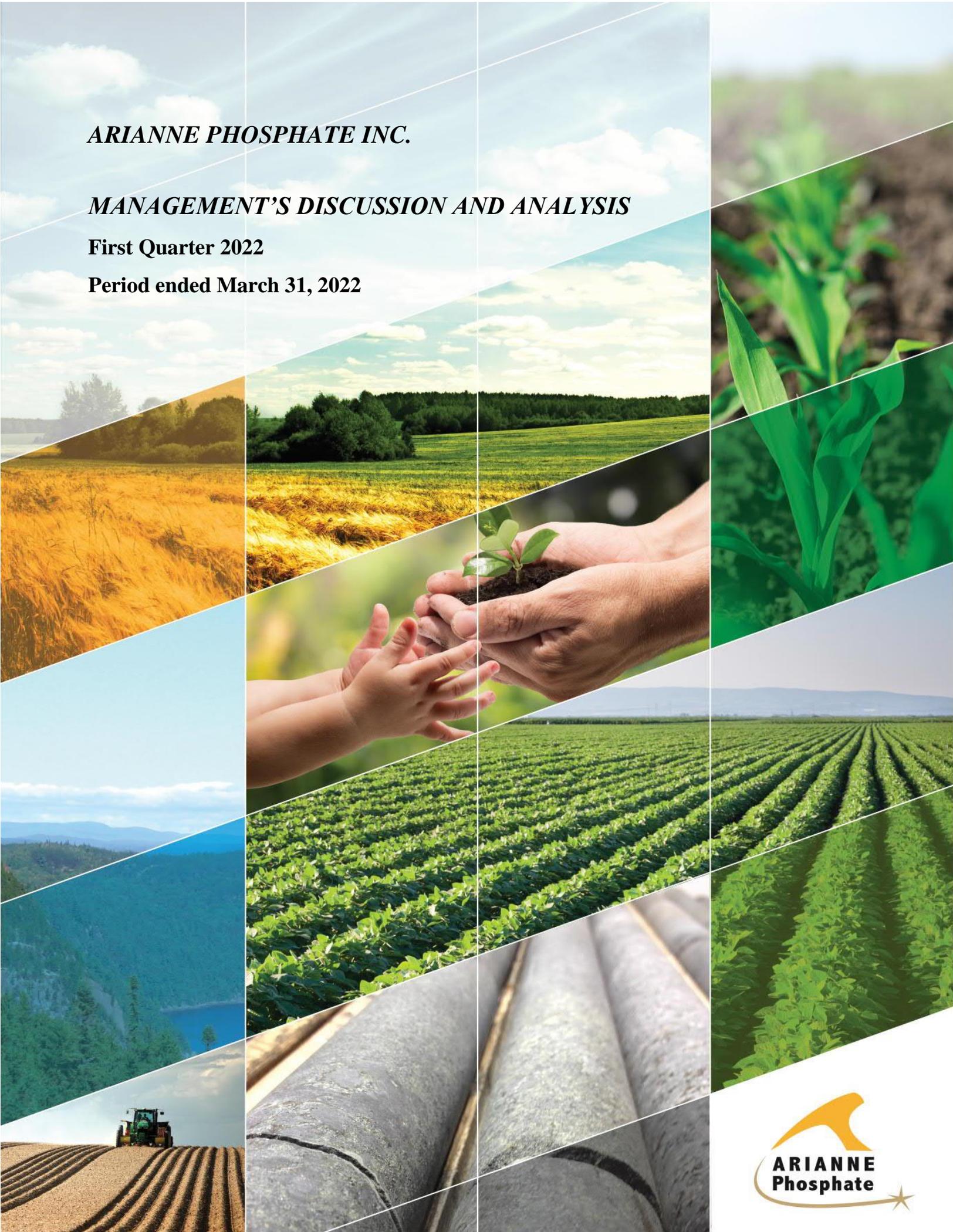


***ARIANNE PHOSPHATE INC.***

***MANAGEMENT'S DISCUSSION AND ANALYSIS***

**First Quarter 2022**

**Period ended March 31, 2022**



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This Management's Discussion and Analysis ("MD&A") presents an analysis of the financial situation and operations of Arianne Phosphate Inc. ("Arianne" or the "Company") for the period ended March 31, 2022. This report was prepared in compliance with the provisions of Form 51-102F1, approved by the Board of Directors and dated May 25, 2022. It should be read in conjunction with the audited consolidated financial statements for the period ended March 31, 2022 (the "financial statements").

The accounting policies followed in the financial statements are consistent with those applied in the Company's annual financial statements for the year ended December 31, 2021 and, where required, in Note 2 of the unaudited condensed interim consolidated financial statements for the three-month period ended March 31, 2022. The financial statements should be read in conjunction with the Company's consolidated and audited annual financial statements for the year ended December 31, 2021, which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the IASB.

### **FORWARD-LOOKING INFORMATION**

Certain statements in this MD&A about our current and future plans, expectations and intentions, results, levels of activity, performance, goals or achievements, or any other future events or developments constitute forward-looking statements. The words "may", "will", "would", "should", "could", "expects", "plans", "intends", "trends", "indications", "anticipates", "believes", "likely", "predicts", "estimates" or "potential" or the negative or other variations of these words or other comparable words or phrases, are intended to identify forward-looking statements. Specific forward-looking statements in this MD&A include, but are not limited to, statements with respect to the general development of the business and the eventual start of commercial production and to the liquidity position of the Company. Forward-looking statements are based on information currently available to us and on estimates and assumptions made by us regarding, among other things, general economic conditions and the mining industry in general, in light of our experience and perception of historical trends, current conditions and expected future developments, as well as other factors that we believe are appropriate and reasonable in the circumstances. Although reasonable, the statements can entail known and unknown risks and uncertainties and, accordingly, actual results and future events could differ materially from those anticipated in such statements.

Arianne ensures to comply with all relevant environmental and social laws, regulations and permits in all material respects.

### **DESCRIPTION OF THE BUSINESS**

Arianne is a company focused on the development of the Lac à Paul phosphate project (Lac à Paul) located in the Saguenay-Lac-St-Jean area, in the province of Quebec. The Company's shares are listed on the TSX Venture Exchange (symbol DAN), on the Frankfurt exchange (symbol JE9N) and on the US Stock Exchange Over-the-Counter (OTC) (symbol DRRSF). The registered office of the Company is located at 393 Racine Street East, Suite 200, Chicoutimi, Québec, Canada G7H 1T2.

## HIGHLIGHTS

- In February 2022, Arianne initiated a research program in collaboration with the Environmental and Biotechnology Research Group of the Riviere-de-Loup Cegep aimed at the development of a new breed of fertilizers using organic waste and Arianne's high-purity, low-contaminant phosphate concentrate.
- On April 1, 2022 the Company issued 4,166,096 common shares at a price of \$0.512 per share, in lieu of cash, as its annual interest payment to Mercury Financing Corp. as at, March 31, 2022. The Company has elected to pay in common shares with these securities issued being subject to a hold period ending August 2, 2022.
- In April 2022, Arianne entered into a collaboration with Northern Nutrients of Saskatchewan, Canada to advance the use of its high-purity phosphate concentrate in alternatively derived fertilizers. The benefits of this work would result in the ability to integrate the Company's phosphate concentrate directly into fertilizers without having to first transform it through acidulation.
- In May 2022, the Company announced that it successfully tested an enhanced process that will allow the Company to optimize its high-purity phosphate concentrate for specific end markets. Working with Corem, Arianne produced both a low MER (minor element ratio) and higher MER phosphate concentrate using high intensity magnetic separation. The results demonstrated that Arianne's phosphate concentrate can be further optimized to meet target markets with an easy addition to the process flowsheet. The low MER material is of interest to those looking for specialty phosphate applications, such as high-purity acid used in lithium-iron-phosphate ("LFP") batteries while, the higher MER concentrate would be of interest for direct application fertilizers, as it would be higher in beneficial micronutrients such as iron.

## OPERATIONAL REVIEW AND HISTORY

Although 85% of the world's phosphate production is used in fertilizer, there is a growing demand from other specialty applications. Due to the nature of Arianne Phosphate's deposit, it allows the Company to produce a very high-purity, low-contaminant phosphate concentrate that can be used for other applications, as well as, for fertilizer. Arianne has been active in pursuing several opportunities that would allow its product a greater potential customer base.

### **Lithium-Iron-Phosphate (LFP) battery**

Over the last several years, the LFP battery has been gaining greater penetration among certain segments of the automotive industry with, several large companies increasing the number of vehicles using these batteries. A constraint on some of the current battery technologies has been the ability to source both an ample and safe supply of the necessary materials to produce these batteries, a challenge that is impacting the industry. In the case of LFP batteries, both iron and phosphate are easier to source and, should provide for the substantial growth that is expected to come over the next few years.

Arianne's high-purity concentrate could work across a wide spectrum of needs, from fertilizer through to more advanced applications. Based on further tests, LFP could provide a new potential market. As with the fertilizer industry, which is now suffering significant supply disruptions, Arianne's location in a safe geopolitical environment provides security of supply for those looking to source their phosphate

Initial work surrounding the Company's high-purity phosphate concentrate has indicated that it would be a good fit for the industry and, has led Arianne to actively pursue this opportunity.

### **Direct application**

Arianne is working with Riviere-du-Loup Cegep on the development of a new breed of fertilizers using organic waste and Arianne's high-purity, low-contaminant phosphate concentrate.

Arianne is also working with Northern Nutrients of Saskatchewan and has provided its phosphate concentrate to be combined into Northern Nutrient's proprietary fertilizer compositions to derive a multi-nutrient fertilizer that can be directly applied to the farmer's field. Testing of this new and proprietary fertilizer will commence this growing season.

Currently, the industry practice is to take mined phosphate concentrate and ship it to a phosphoric acid facility. There, it is combined with sulphuric acid and other ingredients to make 'downstream' phosphate-based fertilizers such as MAP and DAP. By working with both research and commercial organizations, Arianne is looking at ways to alter the traditional process and combine its concentrate with organic waste or other bacterias that would allow its phosphate concentrate to effectively be used in farming without the requirement of traditional acidulated fertilizer products.

For the agricultural industry, it could allow the farmer the ability to move away from acid-based processes and, by integrating with organic waste, allow for a more circular and environmentally friendly process. Logistically, it would also allow Arianne to be less reliant on downstream facilities to purchase its phosphate and transform it into fertilizers

### **Hydrogen-based technology**

Currently, electrolyzers have three main challenges for mass production: performance, durability and cost. The current research centers on the use of phosphate-based materials in the components of the electrolyser and would address these challenges. Phosphate does allow for greater ionic conductivity and will optimize hydrogen production.

Arianne Phosphate is working with the Université du Québec à Trois-Rivières (UQTR) to assess the use of Arianne's high-purity phosphate concentrate in electrolyzers that produce hydrogen for use in hydrogen fuel cells. UQTR's work is focusing on designs around the proton exchange membrane ("PEM").

### **Off-take agreements**

In September and December 2018, the Company announced the formal execution of two off-take agreements. Under the terms of those agreements, the buyers have entered into long-term contracts to purchase Arianne's high-purity phosphate concentrate which will be shipped to the buyers' processing plant for further processing into downstream phosphate products. The off-take agreements also have a mechanism whereby it can be extended beyond the initial contract period and applies pricing that accounts for the high quality of Arianne's concentrate. The Company is conducting ongoing discussion and negotiations with addition potential customers and off-takers.

At the end of 2021 and beginning of 2022, Arianne had extended the existing offtake agreements, which demonstrates the interest of the market in our rock and the support we receive from our future clients.

## PHOSPHATE INDUSTRY TRENDS

The ongoing conflict between Russia and Ukraine has disrupted the supply of many commodities from Russia and, has created huge implications for the fertilizer market. Russia is a very large producer and exporter of various fertilizers, including phosphate. The Lac à Paul project can offer a domestic supply for North America, as well as export to other areas globally. This continues to highlight the importance of a safe geopolitical jurisdiction.

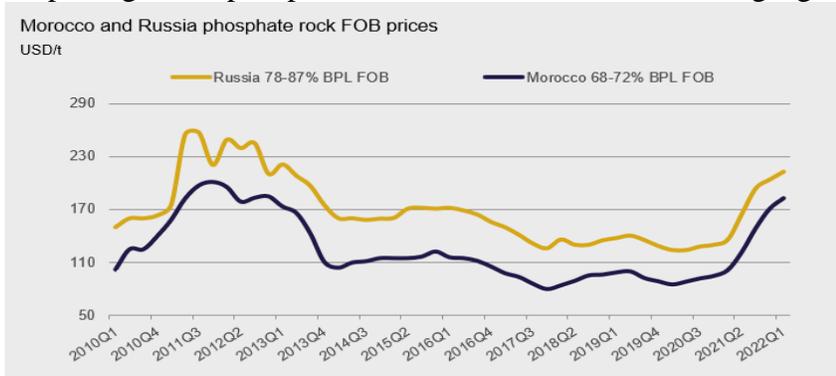
Global demand for phosphate is expected to increase over the medium and long term due to global population growth and a shift in dietary habits towards more protein-rich foods.

Within this context, the Lac à Paul project can satisfy a portion of this growing demand and provide a reliable and secure supply of high-quality phosphate rock.

Phosphate has no substitute and is a key component essential to life. It helps root development and drought resistance in plants.

Phosphate purchasers (potential customers) are concerned with the security of supplies and are aware of the beneficial geopolitical situation regarding the region where the mine is located. The Lac à Paul project is located in a politically stable mining-friendly jurisdiction. As well, as a result of European legislation and environmental issues in North America, there has been a growing awareness surrounding the nature of the phosphate concentrate that is used in the production of fertilizer and other applications. Due to these growing concerns, the interest in higher purity phosphate rock, such as Arianne's, is projected to increase. Supply has also been constrained by China's export ban on phosphate fertilizers and now, the restriction on exports from Russia. Further, recent events surrounding the COVID-19 virus should continue to focus attention on both the food chain and supply chain and thus, the attractiveness of the Lac à Paul project.

Since the beginning of 2021, the market of fertilizer had seen many disturbances. This is reflecting on the pricing of the phosphate rock which had been increasing significantly since the beginning of 2021.



Source: CRU

## FINANCIAL POSITION ANALYSIS

As at March 31, 2022, total assets were \$67,537,831 compared to \$67,853,084 as at December 31, 2021. The primary reason for the decrease is the cash dedicated to operating activities.

Current assets of \$4,596,634 as at March 31, 2022 have decreased from \$5,243,870 as at December 31, 2021. This is the result of decrease in cash due to operating and investing activities.

Current liabilities of \$2,494,601 as at March 31, 2022 have slightly increased from \$2,456,663 as at December 31, 2021, which is the result of higher account payables as at March 31, 2022. Current liabilities are mostly represented by the interest payable on the credit line as at March 31, 2022. In April 2022, the Company had issued 4,166,096 shares to cover this interest as the agreement allows it.

## CASHFLOWS, LIQUIDITY AND CAPITAL MANAGEMENT

As at March 31, 2022, the Company had a working capital of \$2,308,702. Management of the Corporation believes that it has sufficient funds to maintain the status of its current obligations and keep its properties in good standing, to pay its ongoing general and administrative expenses, development expenditures and to meet its liabilities, obligations and existing commitments beyond the ensuing 12 months as they fall due. The Corporation's ability to continue future operations beyond twelve months and fund its development expenditures is dependent on management's ability to secure additional financing in the future, which may be completed in a number of ways, including, but not limited to, the issuance of new equity, debt financing or securing capital from potential partners. While management has been successful in securing financing in the past, there can be no assurance that it will be able to do so in the future or that these sources of funding or initiatives will be available to the Company or that they will be available on terms which are acceptable to the Company.

Cash flows provided by (used in)	Period ended March 31, 2022 \$	Period ended March 31, 2022 \$
Operating activities	(276,043)	(340,647)
Investment activities	(150,195)	22,368
Financing activities	(4,375)	296,251
Increase (decrease) in cash and cash equivalents	(430,634)	(22,028)

### Operating activities

For the period ended March 31, 2022, cash outflows from operating activities totalled \$0.2M, while there were outflows of \$0.3M for the same period in 2021. The operating activities are consistent between the first quarters of 2021 and 2022 and represents normal operating expenses of the Company.

### Investment activities

For the period ended March 31, 2022, cash outflow from investing activities was \$0.1M, whereas \$0.02M was received in the comparative period, both reflecting costs capitalized for property, plant and

equipment. The difference is the reception of \$0.1M in tax credit proceeds for the period ended March 31, 2021.

### Financing activities

For the period ended March 31, 2022, \$5,421 of cash inflow was provided by the issuance of shares from exercise of broker warrant offset by reimbursements of lease liabilities of \$9,796. For the period ended March 31, 2021 \$0.4M of cash inflow was provided by the issuance of shares from warrants exercise offset by \$0.5M of share issuance expenses.

## FINANCING

### Working capital

The working capital was \$2,308,702 on March 31, 2022, compared to \$2,787,207 on December 31, 2021. The working capital as at Q1 2022 includes an interest payment of \$2,133,041 which was elected to convert in shares as the agreement allows it. On April 1, 2022 4,166,096 shares were issued to cover the interest payment.

## SUMMARY OF QUARTERLY RESULTS

	June 30, 2020 \$	September 30, 2020	December 31, 2020	March 31, 2021	June 30, 2021	September 30, 2021	December 31, 2021	March 31, 2022
Net loss	(750,023)	(1,666,073)	(1,666,391)	(4,396,059)	(1,506,590)	(1,158,719)	(1,768,745)	(1,359,798)
Basic and diluted loss per share	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)

For each quarter in fiscal 2022 and 2021, the information contained in the summary of quarterly results is presented in accordance with IFRS. Amounts in this table are presented in Canadian dollars which is also the functional currency.

## SUMMARY OF FINANCIAL ACTIVITIES FOR THE THREE-MONTH PERIOD ENDED MARCH 31, 2022

The net loss for the three-month period ended March 31, 2022 was \$1,359,798 compared to a net loss of \$4,396,059 for the three-month period ended March 31, 2021. The operating loss in 2022 of \$430,518 was higher compared to \$250,053 in 2021. For the three-month period ended March 31, 2021 the Company had reduced most of operating costs, received grant from the government in response to the Covid-19 crisis. As at March 31, 2021 the Company had restructured its debts and the interest rate on the remaining debt had decrease from 15% to 8%, which explains why the finance costs reduced from \$4,120,261 to \$891,852.

## RELATED PARTY TRANSACTIONS

The following operations occurred during the period ended March 31, 2022 and 2021:

	<b>2022</b> \$	<b>2021</b> \$
<b>Key management compensation (1)</b>		
Share-based compensation	30,563	27,048
Management fees	25,000	48,654
	55,563	75,702
Salaries and benefits (2)	135,129	78,510
	190,692	154,212
Balance included in accounts payable and accrued liabilities	8,333	54,112

- (1) The key management is composed of the Chief executive officer (CEO), Chief Financial Officer (CFO), Chief Operating Officer (COO), President and Executive Chairman.
- (2) Salaries and benefits capitalized to property, plant and equipment amount to \$76,901 (\$42,404 in 2021).

The Company has entered into employment and management contracts with its key executives whose estimated annual remuneration amounts to \$500,000. These contracts are renewable annually. The agreements with the Company's key executives contain provisions that apply in case of termination without cause or a change of control. If all executive team members had been dismissed without cause on March 31, 2022, the Company would have had to pay a total amount of \$600,000 as severance. If a change of control had occurred on March 31, 2022, the total amounts payable to the executive team in respect of severance would have totaled \$475,000 (assuming they left after a change of control and each named executive opted to receive such compensation). If the assets of the company had been sold to an "arm's length entity" on March 31, 2022, the total amounts payable to the executive team in respect of severance would have totaled \$725,000 (assuming they left after a change of control and each named executive opted to receive such compensation).

Subsequent to the nomination of Brian Ostroff as a director of the Company on June 4, 2014, Windermere is considered as a related party because it has significant influence over the Company through its representation on the Board of Directors. All agreements and transactions with Windermere are already disclosed in these financial statements and are therefore not described in this note.

Ocean Partners is also considered as a related party because two directors of the Company are directors of Ocean Partners. All agreements and transactions with Ocean Partners are already disclosed in these consolidated financial statements and are therefore not described in this note.

## OFF BALANCE SHEET ARRANGEMENTS

As of the date of this MD&A, the Company does not have any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on the results of operations or financial condition of the Company, including, and without limitation, such considerations as liquidity and capital resources.

## OBLIGATIONS AND COMMITMENTS

- a) In August 2012, the Company granted the Lender of the credit line a royalty of \$1 per ton of phosphate concentrate sales from the Lac à Paul project. This royalty may be redeemed at any time through a lump-sum payment of \$9 million. In July 2013, the Company also granted the Lender of the credit line a royalty of \$0.25 per ton of phosphate concentrate sales from the Lac à Paul project. This royalty may be redeemed at any time through a lump-sum payment of \$2.25 million. These royalties will have to be redeemed by the Company for the same amount in the event of a change of control where at least 90% of the issued and outstanding shares of the Company are acquired, purchased or held by a third party, either through a tender offer or other transaction with the same result. The Company also has granted to other parties a 2.75% royalty on the net smelter return ('NSR'). The royalty may be redeemed at any time through a lump-sum payment of \$2.5 million.

The following are the contractual maturities of financial liabilities, including interest where applicable as at March 31, 2022:

	<b>Carrying amount</b>	<b>Contractual cash flows</b>	<b>0 to 12 months</b>	<b>12 to 24 months</b>	<b>More than 24 months</b>
	\$	\$	\$	\$	\$
Accounts payable and accrued liabilities	251,737	251,737	251,737	-	-
Lease liability	99,928	99,928	66,683	33,245	-
Loans	43,139	30,000	30,000	-	-
Credit line	19,286,180	35,825,488	2,134,658	2,051,977	31,638,853

## APPLICATION OF NEW IFRS AND CRITICAL ACCOUNTING ESTIMATES

The preparation of consolidated financial statements in conformity with IFRS requires management to make estimates and assumptions that affect amounts reported in the financial statements and accompanying notes. There is a summary of significant accounting policies in note 2 of the consolidated financial statements for the year ended December 31, 2021, and a summary of the critical accounting estimates and judgements in the note 4 of the audited financial statements for the year ended December 31, 2021.

## FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL MANAGEMENT

The Company's financial instruments, financial risk and capital management are presented and described in the unaudited consolidated financial statements for the period ended March 31, 2022.

## INFORMATION ON SHARES OUTSTANDING

As at May 25, 2022, 189,969,848 common shares are issued and outstanding. There are 6,890,833 stock options, 45,022,875 warrants and 250,717 options granted to brokers outstanding.

(s) Raphael Gaudreault  
Raphael Gaudreault  
Chief Operating Officer

(s) Pier-Elise Hebert-Tremblay  
Pier-Elise Hebert-Tremblay  
Chief Financial Officer

**Board of Directors and Officers**

**Dominique Bouchard**, Executive Chairman of the Board of Director  
**Jeffrey Beck**, Chief Executive Officer and Director  
**Brian Ostroff**, Director and President  
**Jim Cowley**, Director  
**Steven L. Pinney**, Director  
**Siva J. Pillay**, Director  
**Marco Gagnon**, Director  
**Claude Lafleur**, Director

**Raphael Gaudreault**, Chief Operating Officer  
**Pier-Elise Hebert-Tremblay**, Chief Financial Officer

**Ticker symbols**

DAN: TSX-V (Canada)  
JE9N: FSE (Germany)  
DRRSF: OTC (USA)

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