

**Progressive Planet Solutions Inc.**  
**Management's Discussion & Analysis**  
**For the Six-Month Period Ended October 31, 2022**

**November 22, 2022**

**INTRODUCTION**

The Company's shares are listed for trading on the TSX Venture Exchange ("TSX-V") under the trading symbol PLAN and on Aug 17, 2022 were listed to trade on the OTCQB under the symbol ASHFX.

The following management's discussion and analysis ("MD&A") is a review of the operations, current financial position and outlook for Progressive Planet Solutions Inc. ("the Company" or "PLAN") and should be read in conjunction with the Company's consolidated financial statements and the accompanying notes for the six-month period ended October 31, 2022, which were prepared using accounting policies consistent with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and are filed on the SEDAR website: [www.sedar.com](http://www.sedar.com).

All dollar figures included herein and in the following discussion and analysis are quoted in Canadian dollars unless otherwise noted.

This MD&A contains forward-looking statements and should be read in conjunction with the risk factors described under "Risk Factors" and "Forward Looking Statements" towards the end of this MD&A.

## DESCRIPTION OF BUSINESS

Until the acquisition of Absorbent Products Ltd. (“APL”) on February 18, 2022, PLAN was primarily engaged in developing natural pozzolan properties in British Columbia (“BC”), Canada. Its three mineral properties are all within a one-hour drive of Kamloops, BC. These properties are named the Z1 Natural Pozzolan Property, the Z2 Natural Pozzolan Property, and the Heffley Creek Metals & Pozzolan Property.

During the current quarter, PLAN elected to discontinue earning an interest in the Z2 Natural Pozzolan Property due to now having two fully permitted zeolite properties in its portfolio.

PLAN also previously operated a seasonal pilot plant which produced mineral powders (soft rock phosphate) for agriculture on a seasonal basis. This plant was not reopened after the acquisition of APL. In Q1, the pilot plant was dismantled and all the industrial scale equipment from the plant was relocated to Kamloops, BC.

In Q2, most of the industrial scale equipment was integrated into the new fertilizer and cement production facilities at 734 Sarcee Street in Kamloops. This building was previously used to store packaging inventory, but with a major reduction in packaging inventory, this building was repurposed for new production lines for low carbon cements and regenerative fertilizer production which should increase capacity and improve operational efficiencies, although the Company can provide no assurance or guarantee of such result.

The only remaining industrial equipment not yet installed is the air classification system which allows for segregation of powders by size and enables the sale of ultra-fine powders used in fertigation. Management anticipates all air classification equipment to be installed and functional in Q3. The gross margins on the sale of ultra-fine powders are some of the highest margins available in our current product portfolio, so this business is a key growth area going forward.

PLAN began consolidating its financial statements with APL effective February 18, 2022, the date it was acquired. PLAN changed APL’s name to Progressive Planet Products (“PPP”) on May 2, 2022. Going forward, APL shall be referred to as PPP.

PPP generated revenue of \$10,599,552 during the six-month period ended October 31, 2022 and \$5,421,843 in revenue for the three-month period ended October 31, 2022. This scale of revenue for a full quarter was never achieved by PLAN as a mineral exploration company in its entire history. PPP also had associated expenses on a scale which PLAN never before incurred as it was not an active mineral processor on a commercial scale before the acquisition.

As a result of this paradigm shift in PLAN as a company, this MD&A differs greatly from the MD&A for the six-month period ended October 31, 2021.

In December 2018, Canada announced regulations to phase-out traditional coal-fired electricity by 2029. As Class F fly ash is only created by coal fired power plants, the generation of fly ash as a by-product of burning coal will cease in Canada by 2030. In the interim, the supply of fly ash is already diminishing with early shutdowns already occurring. Further early shutdowns were announced in

December 2020 by Capital Power announcing the early shutdown of the coal fired Genesee 1 and Genesee 2 in Alberta by 2023. This shut down is now moved to the first quarter of 2024. As the concrete industry will not change the need to supplementary cementitious materials (of which fly ash is the most common in Canada), other materials will need to fill this supply void going forward.

In addition to operating PPP, PLAN is continuing its efforts to commercialize three supplementary cementitious materials (“SCMs”) to replace up to 50% of Portland cement in concrete through an active product development program focused on developing technologies to lower the carbon footprint of all the Portland cement powder we replace with new innovative SCMs. These products are named:

- PozGlass™ 100G SCM,
- PozDE™ SCM, and,
- PozZeo™ SCM

Our flagship product, PozGlass 100G, is made from 100% post-consumer glass which we treat in a process that removes sodium from the glass. Sodium is undesirable as it is a very weak mineral and its presence in concrete weakens the concrete. The sodium is reacted with CO<sub>2</sub> to create a permanent carbon store.

PozDE is made from material sourced from our Red Lake Diatomaceous Earth Mine. It is substantially stronger than fly ash on a per weight basis. In Q2, PLAN ordered specific equipment to dry and remove carbon from finely ground diatomaceous earth from the Red Lake Mine. PLAN anticipates being able to supply small commercial amounts of PozDE in Q4 of its current fiscal year with the use of existing equipment. As markets are developed and offtake agreements obtained, PLAN will invest in larger equipment to produce quantities of PozDE in the volumes of tonnes per day versus tonnes per week.

In Q2, PLAN started making PozZeo, a finely ground powder derived from the coarse powder which is a by-product of making two granular zeolite products.

In Q2, PLAN began distributing larger samples of all three of its three SCM’s and received its first commercial order for both PozDE and PozGlass 100G from ZS2 Technologies, a company which PLAN has a small equity investment in.

For the foreseeable future, the Company does not intend to dispose of any significant business assets or interests owned by PPP, including its mineral and mining operations, industrial properties (including long-term lease properties), manufacturing / sales / distribution infrastructure, portfolio of eco-conscious product lines, patents and intellectual property. The decision to discontinue earning an interest in the Z2 Zeolite Property was an exception and was done for reasons stated in this MDA.

The Company believes that the PPP acquisition is a significant step to achieving its long-term goal of becoming an industry leader in the manufacture of regenerative fertilizers which reduce the

application of chemical fertilizers and chemical pesticides. The acquisition was also a significant step in creating supplementary cementing materials with low-embodied carbon footprints.

PPP is a major regional manufacturer of industrial minerals with three main markets including the following:

- Industrial Absorbents – These are sold in every state and province under our brand, CanDry, as well as under private label where this product is sold in over 550 locations of one of Canada’s top ten retailers.
- Cat Litters – These are sold in Western Canada under our brand, WunderCat, as well as under private label for most of the large national retailers in Canada. In Q2, PPP began to scale back on low margin private label cat litter and will focus on promoting the higher margin WunderCat brand into the future.
- Animal Husbandry/AgTech – These products are sold under many brands with our largest selling individual product as a company marketed as Activated Barn Fresh. Activated Barn Fresh neutralizes ammonia in chicken barns and enables the birds to breathe easier. This product holds a US patent until 2033 and was invented in Kamloops, BC.

Progressive Planet Solutions Inc. is the parent company with three wholly owned subsidiaries including the following:

1. Progressive Planet Products Inc. (“PPP”) - PPP is the operating company in Kamloops, BC, Canada. The head office and all manufacturing operations are located at the Mount Paul Industrial Park where PPP has four long term industrial leases with the Tk’emlúps te Secwepemc who are also known as the Kamloops Indian Band.

Our Low Carbon Cement Lab is also located on these premises, and this is where we operate the PozGlass Reactor at our fully equipped concrete lab. This lab is run by Michael Carrell, a mechanical engineer.

Our Agricultural Tech and Product Quality Control Lab is also located in Kamloops, BC and is operated by Jen Bylycia, the co-inventor of Activated Barn Fresh, our patented activated bedding for chickens.

2. Progressive Planet Alberta Inc. (or “PPA”) – PPA is the research division of PLAN and is located in Calgary, Alberta, Canada. PPA operates the C-Quester™ Centre for Sustainable Innovation and is led by Dr. Roger Mah. The lab focuses on measuring the carbon footprint of all new materials under development by the PLAN group of companies.
3. Progressive Planet US LLC is incorporated in Oregon, USA and employs two US based salespersons who sell products for PPP.

## HIGHLIGHTS & ACTIVITIES

During the six-month period ended October 31, 2022, there were a significant number of highlights and activities as PLAN transitioned from a mineral exploration company to a well-established mineral processor focused on high-growth market opportunities. The following are highlights from the fiscal year.

### May 2022

- PLAN promoted Ian Grant to COO and relocated Grant to Kamloops, BC.

### June 2022

- PLAN unveiled PozDE made from waste powders generated from producing granulated products at PPP. PozDE announced ASTM C311 testing results completed by an independent pozzolan expert. ASTM C311 is a standard test method for sampling and testing fly ash or natural pozzolans for use in Portland Cement Concrete.

### July 2022

- PLAN announced the first order of custom-blended, regenerative fertilizer.
- PLAN announced a patent application for PozGlass 100G in 156 countries.

### August 2022

- PLAN finalized a plan to purchase 50% of Bromley Creek Zeolite Mine in Princeton, BC.
- PLAN announced commencement of trading of its shares on the OTCQB Venture Market.
- PLAN completed the acceleration of the 7.5 million warrants with all 7.5 million warrants being exercised for proceeds of \$1,125,000.

### September 2022

- PPP hired a new Director of Sales
- PPP commenced field trials with PozGlass™ SCM, PozDE™ SCM, and PozZeo™ SCM with three cement companies in Calgary, Alberta.
- ZS2 Technologies Ltd. ("ZS2"), one of the three companies provided samples, shared 7-day test results for a 33 weight-percent incorporation of PozGlass SCM and PozZeo SCM into their magnesium-based cement showing more than twice the required structural capacity of Portland cement.
- PPP achieved a 33% reduction in active SKUs and will continue this strategic consolidation with updates to follow.
- PPP commenced construction of a standalone Ag-Tech plant and began producing fertilizers.
- PPP completed the commissioning of a new fume hood in its Kamloops AgTech lab and created a schedule of experiments using by-product powders as base ingredients for products designed to reduce the application of chemical pesticides.

### October 2022

- PPP announced its first purchase order with ZS2 Technologies to provide a proprietary blend of PozGlass and PozZeo.
- PLAN hired its first ever, full-time Director of Marketing

## **OUTLOOK AND ADDRESSING INFLATIONARY PRESSURES**

### INFLATIONARY OVERVIEW & COMMENTARY ON INCREASED GROSS MARGIN

The acquisition of PPP occurred in the middle of a historical period of inflation. Immediately upon taking over APL, PLAN's management team had to address several difficult issues, all of which contributed to historically low gross margins (13%) relative to APL's results from prior years for the seventy-two day period from February 18, 2022 (date of acquisition) to April 30, 2022 (end of the prior fiscal year).

Many of these problems were addressed in the first quarter and gross margins rose from 13% to 27%. and gross margins rose further in the second quarter to 32%.

While PLAN did not provide specific guidance on gross margin in prior quarters, management did state in the prior year-end MD&A that it did *"not envision gross margin to remain at these levels starting in the second quarter of the current fiscal year with full effects of the price increases and reduced packaging costs expected to be experienced in the third quarter which starts on November 1, 2022"*.

The increase in gross margins can be attributed to many factors including the following five:

- Several price increases which were communicated to customers in the first quarter actually took effect until the second quarter,
- The CDN dollar fell against the USD and US sales continued to be robust,
- PPP took a stance with two large CDN retailers where it demanded a minimum margin to ship private label cat litter product. When minimum margins were not achieved (including shipping), product was not shipped.
- Through the implementation of lean manufacturing, an increase in productivity of over 50% was achieved in the production of 4lb bags of Red Lake Earth, a top ten seller for PPP, and,
- Through the implementation of lean manufacturing, multiple forms of packaging were eliminated and switched to alternate packaging with lower cost and less materials including the switch to pouches from jugs for Red Lake Earth.

### CONTINUED CORRECTIVE ACTIONS TO ADDRESS GROSS MARGINS

#### Reduction of Low Margin Private Label Cat Litter Business & Focus on Branded Litter

As a result of resistance to price increases, PPP suspended supplying a number of SKUs of clumping, bentonite clay-based cat litters packaged in corrugated cardboard boxes to a major Canadian retailer in March 2022. The decision to suspend supply was influenced by the fact that PPP was experiencing negative gross margin on multiple cat litter private label SKUs sold to this customer.

Sales resumed to this retailer in May 2022 upon the acceptance of a significant price increase. PPP reduced its remaining inventory of corrugated cardboard boxes during the quarter and worked through the balance of this packaging inventory in September with no reordering of this type of packaging.

Once this packaging was eliminated from inventory, PPP took a stance requiring a minimum margin (including shipping) as referenced above. It took a similar stance with another top five CDN retailer in Q2. Failure to get the minimum margin approved resulted in dramatically smaller amounts shipped to both these retailers in Q2 with formal notification of cessation of this business with one of these two retailers transpiring in November.

PPP currently holds corrugated cardboard inventory for only one large western Canadian retail chain and is working with this retailer to work through this inventory in Q3 and Q4 with new packaging being designed to replace the legacy packaging. New packaging is less expensive, uses less material, and requires substantially less warehouse space for storage.

In Q2, a concerted effort was made to use up packaging on a brand which is being phased out (Cattitudes). Going forward, only the WunderCat brand will be produced. Efforts to produce new cat litter products will all focus on the WunderCat brand including plans to develop a light-weight litter in-house. Gross margins on the sale of WunderCat litter are better than the margins on private label litter.

#### Continued Implementation of Major Price Increases

During the three months ended July 31, 2022, PPP notified customers of price increases of between 7% and 50%, with these increases generally taking place in Q2.

In addition, PPP is moving towards more customers paying for shipping to eliminate the risk of shipping costs exceeding built in shipping allowances in delivered pricing arrangements.

#### Reduction of SKUs

PPP made a strategic decision in the prior fiscal year, to reduce the number of products it would produce. At the date of acquisition, PPP had over 400 unique SKUs, yet over 75% of historical sales came from only 30 SKUs.

PLAN issued a news release on September 22, 2022, announcing that it had achieved a 33% reduction in active SKUs which reduces constant switch overs at the production plant. In Q2, efforts were made to further reduce SKU's with the continued reduction in producing private label cat litter towards a focus on higher margin branded cat litter production going forward.

#### Optimizing Warehouse Space and Converting it to Production & Research Space

Implementation of legacy decisions on replacing bulky packaging continued in Q2. In the quarter, all remaining legacy packaging which was stored in 734 Sarcee Street was consumed or written off and efforts continued to convert the balance of this building into further research facilities and production facilities to make SCM's and regenerative fertilizers.

Multiple pieces of equipment were installed in the cement lab including larger ovens, a batch ball mill capable of producing hundreds of kilograms of SCM samples per day, and a press used to measure the compressive strength of concrete samples.

In addition, the industrial ball mill which was formerly located at the pilot plant in Spallumcheen was installed and commissioned.

### Future Focus on Toll Processing Fertilizers & Soil Amenders

While PPP completed its first toll processing of non-chemical fertilizer in March of 2022, it became apparent that existing plant operators could run additional products simultaneously if a separate section of the plant was equipped to handle toll processing.

Toll processing minerals is a favored area for growth as there is no inventory to finance and the customer covers shipping of the product both inbound and outbound shipping of the minerals.

As referenced earlier in the MDA, additional equipment was installed in Q2 to enable toll processing of soft rock phosphate as well as other natural materials (e.g., bonemeal) without concurrent shutting down production of the primary products made by PPP. Gross margins on toll processing fertilizer powders are higher than the gross margins on cat litter. Toll processing of fine powders commenced in Q2 (October) and PPP anticipates additional toll processing (ultrafine powders versus fine powders) for existing customers in Q3 once existing air classification equipment is installed to enable processing ultrafine powders.

In Q2, PPP began procuring and assembling additional components to start production of pelleted regenerative fertilizers on a scale of tonnes per week versus tonnes per day for full scale commercial production. Actual commissioning of small-scale production is planned for December 2022.



## CORPORATE ACTIVITIES

### Acquisition of Absorbent Product Ltd.

On December 24, 2021, the Company announced that it had signed a binding share purchase agreement (“SPA”) to acquire 100% of the issued and outstanding shares of PPP (at that time named Absorbent Products Ltd.) and certain related companies<sup>1</sup>.

On February 18, 2022, the Company completed the acquisition of PPP.

The total fair value of consideration paid by the Company for PPP was approximately \$13.5 million, comprised of:

Cash consideration (1)	\$ 11,062,519
Share consideration (2)	2,454,857
<b>Total (3)</b>	<b>\$ 13,517,376</b>

- 1) Under the terms of the SPA, cash due on closing included a \$1.0 million holdback paid into trust, that was to be adjusted upward or downward on a dollar for dollar basis to the extent that PPP’s net working capital (accounts receivable, inventory, and prepaid expenses less accounts payable and accrued liabilities) on the closing date was greater or less than the target net working capital of \$4.0 million.

The Company calculated the net working capital on closing to be approximately \$3.87 million. Accordingly, the cash consideration balance of \$11.1 million set out above, includes approximately \$870,000 of the holdback funds. The remaining \$130,000 of the \$1,000,000 holdback in trust was returned to the Company in November 2022.

- 2) Share consideration is comprised of the following:
  - i. \$1.2 million in common shares of the Company issued at the closing date at a price of \$0.35 per share. These shares had a 4 month hold period which expired on June 19, 2022.
  - ii. \$900,000 in common shares of the Company issued one year from the closing date, at a price equal to the greater of (a) \$0.35 per share, or (b) the 50-day volume weighted average trading price of such shares in the days immediately preceding each issuance of such shares, and
  - iii. \$900,000 in common shares of the Company issued two years from the closing date, at a price equal to the greater of (a) \$0.35 per share, or (b) the 50-day volume weighted average trading price of such shares in the days immediately preceding each issuance of such shares.

<sup>1</sup> The related companies are 0820443 B.C. Ltd., a property holding company, and 1111157 B.C. Ltd., a holding company. Together with Absorbent Products Ltd., these companies are collectively referred to as PPP in this document.

As disclosed in its consolidated financial statements for the six-month period ended October 31, 2022, the Company estimated the fair value of the share consideration to be \$2.5 million which incorporates a discount from the \$3.0 million face value to reflect the 4-month trade restriction periods for each tranche, as well as waiting periods to receive the remaining two tranches of shares on February 18, 2023 and February 18, 2024 respectively.

- 3) In addition to the cash and share consideration discussed above, the Company assumed PPP's existing bank indebtedness at the acquisition date. The bank indebtedness was comprised of an operating line of credit with the Bank of Montreal. As shown in the Assets Acquired and Liabilities Assumed table below, the balance of this bank indebtedness, net of cash acquired, was approximately \$2.15 million at the acquisition date.

### Assets Acquired and Liabilities Assumed

In accordance with the acquisition method of accounting, the consideration transferred was allocated on a preliminary basis to the underlying assets acquired and liabilities assumed, based upon their estimated fair values at the Acquisition date.

The table below presents the preliminary fair values of the assets acquired and liabilities assumed at the acquisition date. The allocation is preliminary and the fair values are subject to change as there has not been sufficient time to complete the valuation process. The valuation work must be finalized within twelve months following the acquisition date. Accounts receivable, inventories, property, plant & equipment, exploration and evaluation assets, accounts payable, deferred revenue, asset retirement obligations, and deferred income tax liability, are all subject to change. Any adjustments made will be recognized retrospectively and comparative information will be revised.

<b>Assets acquired and liabilities assumed</b>	
Cash	\$ 74,895
Accounts receivable	2,192,313
Inventories	4,111,982
Prepaid expenses	195,153
Property, plant & equipment	12,794,728
Leased assets	2,349,873
Mineral properties	1,193,527
Bank indebtedness	(2,225,125)
Accounts payable	(2,162,598)
Deferred revenue	(154,562)
Lease obligations	(2,422,773)
Asset retirement obligations	(261,070)
Deferred income tax liability	(2,168,967)
<b>Fair value of net assets acquired</b>	<b>\$ 13,517,376</b>

During the six months ended October 31, 2022, the main focus of PLAN was the continued integration of PLAN's pilot plant equipment with PPP's operations in Kamloops while spending considerable resources continuing to react to inflationary pressures on the business. This integration focused on construction of the standalone Ag-Tech plant which PLAN began using to produce fertilizer powders in October 2022.

### **Investments in Private Companies – Snow Lake Lithium**

During the year ended April 30, 2020, the Company received 10,500,000 common shares of a private corporation, Snow Lake Resources Ltd. (“Snow Lake”) valued at \$135,388 pursuant to the sale of the Thompson Bros Lithium Property. During the year ended April 30, 2021, the Company sold 2,950,000 shares and recorded a realized gain of \$79,962. Management updated the fair market value of the Company’s 7,550,000 remaining shares based on option agreements to sell 7,050,000 of those shares at \$0.04 per share to two arms-length purchasers. The Company recorded an unrealized gain of \$204,650 on valuation of the remaining shares held on April 30, 2021.

Between May and July 2021, the Company sold 7,050,000 shares at \$0.04 per share. The Company’s remaining 500,000 Snow Lake shares were consolidated on a 5:1 basis which reduced the number of shares owned to 100,000. On November 8, 2021, the Company sold its remaining 100,000 Snow Lake shares to an arms-length purchaser for USD\$3.75 per share (\$4.69 per share). As a result, the Company realized a gain of \$446,838 from the sale of these remaining shares.

	Common shares	Total
<b>Snow Lake Resources Ltd.</b>		
Balance, April 30, 2021	7,550,000	\$ 302,000
Sale proceeds	(7,050,000)	(282,000)
Share consolidation (5:1)	(400,000)	-
Sale proceeds from consolidated shares	(100,000)	(466,838)
Realized gain on sale	-	446,838
Balance, April 30, 2022 and October 31, 2022	-	\$ -

### **Investment in Private Companies – ZS2 Technologies Ltd.**

In September 2021, the Company participated in a private placement for the purchase of 300,000 units of a private company, ZS2 Technologies Ltd.. (“ZS2”) at \$1.00 per unit. Each unit was comprised of one full common share of ZS2 and one full share purchase warrant. The share purchase warrants have a strike price of \$2.00 per share and a term of 18 months.

On March 8, 2022, the Company received 300,000 share purchase warrants for ZS2 shares in exchange for the provision of consulting services. These warrants have a strike price of \$2.00 per share and a term of 5 years. The Company estimated the value of these warrants to be \$348,000 using a Black-Scholes option pricing model. Also on March 8, 2022, the Company exercised 150,000 of the warrants from the September 2021 private placement to acquire an additional 150,000 shares of ZS2 for \$2.00 per share. At that time the Company estimated the fair value of its remaining 150,000 warrants from the September 2021 private placement to be \$82,500 using a Black-Scholes option pricing model.

The following assumptions were used for the warrant fair value estimates:

	<b>Sep 3, 2022</b>	<b>Mar 8, 2022</b>
	<b>Warrants</b>	<b>Warrants</b>
Spot and strike price per share	\$2.00	\$2.00
Risk-free interest rate	1.12%	1.12%
Expected life of options	1 year	5 years
Expected annualized volatility	69.31%	69.31%
Expected dividend rate	0.00%	0.00%

The following is a summary of the Company's ZS2 investment for the six-month period ended October 31, 2022 and the year ended April 30, 2022:

		Total
<b>ZS2 Technologies Ltd. – Common shares</b>		
	Common shares	
Balance, April 30, 2021	-	\$ -
Additions	300,000	300,000
Shares acquired on the exercise of warrants	150,000	300,000
Unrealized gain from change in fair value	-	300,000
Balance, April 30, 2022 and October 31, 2022	450,000	\$ 900,000
<b>ZS2 Technologies Ltd. – Share purchase warrants</b>		
	Warrants	
Balance, April 30, 2021	-	\$ -
Additions	300,000	-
Exercised for common shares	(150,000)	-
Remaining at March 8, 2022	150,000	82,500
Received in exchange for consulting services	300,000	348,000
Balance, April 30, 2022 and October 31, 2022	450,000	\$ 430,500
Balance, April 30, 2022 and October 31, 2022		\$ 1,330,500

## ANNUAL RESULTS

*Six-month period ended October 31, 2022 compared to the six-month period ended October 31, 2021.*

### **Loss and comprehensive loss**

The Company recorded a net loss and comprehensive loss of \$396,179 for the six-month period ended October 31, 2022, compared to \$818,787 in the comparative period. A brief explanation of the significant changes in revenue and expenses by category is provided below:

- Revenue increased from nil to \$10,599,552. Revenue for the current period was generated from PPP's operations which were acquired in February 2022. Accordingly, no revenue from these operations was recorded for the comparable period. The revenue generated from PLAN's pilot plant operations during the comparable period was recorded in Other Income.
- Cost of sales increased from nil to \$7,432,754. The current year cost of sales relates to direct product manufacturing costs incurred by PPP for the period.
- Selling expense increased to \$1,325,422 (2021 – \$34,803) due to the inclusion of regular marketing expenses and sales staff wages incurred by PPP during the current period.
- Finance costs increased to \$327,714 (2021 - \$15,239) due to the interest costs of the three term loans used to purchase PPP along with interest charges for the operating line of credit used in PPP's operations.
- Office and Administration costs increased to \$605,565 (2021 - \$118,922) due to the increased costs to run PPP versus the much smaller costs incurred in the prior year when PLAN only operated a seasonal pilot plant.
- Personnel expense increased to \$640,389 (2021 - \$366,744) due to the increased staffing and associated costs of running PPP versus the comparable period which was prior to the acquisition. In addition, in July 2022 the Company recording a one-time performance bonus of \$100,000 which was awarded to the CEO by the board of directors.
- Professional fees increased to \$301,512 (2021 - \$212,021) primarily due to increased legal fees for post-acquisition corporate restructuring as well as patent registration costs for new products. In addition, in August 2022 the Company recording a one-time performance bonus of \$50,000 which was awarded to a company owned by the CFO by the board of directors. PLAN anticipates a reduction in professional fees for the remainder of fiscal 2023.
- Research and development costs increased to \$229,523 (2021 - \$79,076) due to additional resources being committed to accelerated work on PozDE and PozGlass 100G in addition to over 20 product development initiatives already underway at PPP related to regenerative fertilizers/soil amenders/animal husbandry/Ag Tech. PLAN anticipates

this number to increase during the remainder of fiscal 2023 as it scales up the production of PozGlass 100G and PozDE as well as for the development various regenerative fertilizer pellets.

- Share-based compensation decreased to \$123,731 (2021 - \$358,500) due to fewer stock options being issued to employees, consultants and officers in the current period than in the comparable period. In addition, the estimated value per individual stock option decreased between periods which contributed to the reduction in share-based compensation expense.
- Other income, which is primarily comprised of sales from PLAN's comminution operations (less related expenses) along with grant income increased to \$104,717 (2021 – \$59,207). The increase was primarily the result of the Company receiving \$104,354 of grant income in the current period compared to nil in the prior year period. Partially offsetting this increase was the reduction in income earned from the provision of research services which the Company discontinued in December 2021.
- Write-off of exploration and evaluation asset expense increased to \$78,554 (2021 – nil) because in October 2022 the Company ceased exploration activities on its Z-2 Zeolite Property and relinquished its rights to acquire the property under the terms of the option agreement.

## SUMMARY OF QUARTERLY FINANCIAL INFORMATION

Results for the most recent eight quarters ending:

	For the Three Months Ended			
	October 31, 2022	July 31, 2022	April 30, 2022	January 31, 2022
Revenue	\$ 5,421,843	\$ 5,177,709	\$ 3,833,146	\$ Nil
Income (loss) and comprehensive income (loss)	81,315	(477,494)	(1,675,602)	(783,990)
Basic and diluted income (loss) per share	0.00	(0.00)	(0.02)	(0.01)
Property, plant and equipment	14,109,853	13,927,559	13,838,772	1,125,291
Mineral properties	1,484,499	1,328,421	1,148,176	-
Exploration and evaluation assets	1,597,021	1,647,719	1,632,139	1,612,164
Total assets	28,486,553	29,158,806	28,295,121	3,752,082
Loans payable	8,364,799	8,563,899	8,713,224	220,144

	For the Three Months Ended			
	October 31, 2021	July 31, 2021	April 30, 2021	January 31, 2021
Revenue	\$ Nil	\$ Nil	\$ Nil	\$ Nil
Income (loss) and comprehensive income (loss)	(320,751)	(498,036)	(1,692,156)	24,587
Basic and diluted income (loss) per share	(0.00)	(0.01)	(0.03)	0.00
Property, plant and equipment	1,031,989	1,074,241	968,921	562,432
Exploration and evaluation assets	1,607,790	1,578,630	1,544,612	1,429,981
Total assets	4,101,700	3,908,704	4,256,912	3,050,933
Loans payable	229,572	238,865	248,027	536,927

Significant variations in income (losses) occurred between quarters as a result of substantial changes to the Company's operations arising from the acquisition of PPP in February 2022 as well as from substantial changes in the amount of share-based compensation, professional fees and exploration and evaluation assets write-offs.

As described above, the Company acquired PPP effective February 18, 2022. PPP had revenue of \$5,421,843 during the three months ended October 31, 2022; \$5,177,709 during the three months ended July 31, 2022; and \$3,833,146 in the 72 days between February 18, 2022 and April 30, 2022.

The Company's income and comprehensive income increased from a loss of \$477,494 during the three months ended July 31, 2022 to income of \$81,315 during the three months ended October 31, 2022. This increase was primarily the result of:

- a. the Company's gross profit during the three months ended October 31, 2022 was \$1,784,294 (32% gross margin) compared to \$1,382,504 (27% gross margin) for the three months ended July 31, 2022. This increase resulted from the factors outlined in the OUTLOOK AND ADDRESSING INFLATIONARY PRESSURES section set out above.

It should be noted that, when interest, amortization and depreciation, and exploration and evaluation asset write-offs are excluded, the Company's pre-tax income for the three-month period ended October 31, 2022 increases to approximately \$500,000.

- b. the Company received \$89,195 in grant revenue during the current quarter compared to \$15,522 in the previous quarter.
- c. the Company reported a foreign exchange gain of \$80,418 in the current quarter compared to \$14,647 in the previous quarter, as the result of an increase in value of the US dollar compared to the Canadian dollar over these periods.
- d. The above factors which positively contributed to an increase in the Company's profitability during the three-month period ended October 31, 2022 were partially offset the write-off of exploration and evaluation asset expense of \$78,554 which was reported in the current quarter.

The significant increase in the Company's assets from between January 31, 2022 and April 30, 2022 was the result of the assets acquired in the PPP acquisition. Furthermore, the significant increase in the Company's long term financial liabilities over the same period was the result of the acquisition-related debt financing obtained in February 2022 as well as the lease liabilities assumed in the PPP acquisition.



## **MINERAL PROPERTIES**

### **EXPLORATION AND EVALUATION PROPERTIES**

#### **Z1 Natural Pozzolan Property, British Columbia**

On January 23, 2017, the Company announced the signing of an option agreement, subsequently amended, to acquire a 100% interest in the Z1 Zeolite Quarry/Mine (“Z1”) located about 3 kms northeast of Cache Creek, BC.

On January 17, 2018, the Company amended certain terms of the Z1 Zeolite agreement. The mending agreement afforded the Company an additional 12 months to meet the minimum expenditures requirement.

On June 14, 2018, the Company completed all its option requirements on Z1 six months ahead of the deadline to complete the minimum expenditures requirement.

Since completing the acquisition of Z1, PLAN has conducted various research activities on natural pozzolan from Z1 including the development of PozGlass SCM to complete with fly ash as a lower carbon footprint substitute for Portland cement. Management determined that the largest market opportunity involves creating a SCM since the main SCM currently consumed in Canada is fly ash and fly ash is created from burning thermal coal to produce electricity.

In April 2021, PLAN announced the successful completion of Phase One of a Two Phase test program for its PozGlass™ SCM product. In June 2021, PLAN announced the positive accelerated-cure Resistance to Chloride Ion Penetration (“RCP”) test results for its PozGlass™ SCM product. The Company is focused on delivering economic and eco-friendly solutions for the cement and concrete industry.

Phase Two testing has now been completed and was focused on testing concrete durability, including compressive strength, chloride permeability testing and sulphate resistance. All results have been disseminated in news releases and can be found on PLAN’s website at <https://progressiveplanet.ca/investors-nov-21/>.

With the acquisition of APL, PPP has switched focus to using zeolite from the Bromley Creek Mine in Princeton versus using zeolite from the Z1 Zeolite Quarry for the following reasons:

- The zeolite sourced from Bromley Creek is approved by the Canadian Food Inspection Agency as an animal feed additive as well as for a soil amender (Z-lite Feed and Green Patch, respectively). Z1 zeolite has no CFIA approvals.
- Zeolite from Bromley Creek is more reactive as a SCM than zeolite from the Z1 Quarry.
- Sales are growing for Bromley Creek zeolite while no markets are currently developed for Z1 Zeolite.
- PozZeo (made from Bromley Creek zeolite fines) performed better in testing with new customers that PozZeo made from Bromley Creek.

Management is currently assessing Z1 as a lightweight aggregate and/or a component of light weight cat litter among other uses. The future plans for the Z1 Zeolite Quarry will be contingent on this assessment.

## **Z2 Natural Pozzolan Property, British Columbia**

On October 3, 2019, the Company entered into a property option agreement to acquire the Z2 Zeolite Property located near Falkland, BC ("Z2") for the following considerations:

- i) Share issuances
  - a) 33,334 common shares on or before October 22, 2019 (issued with a value of \$3,000).
  - b) 66,667 common shares on or before April 22, 2021 (issued with a value of \$26,667).
  - c) 66,667 common shares on or before October 22, 2022 (not issued).
  
- ii) Cash payments
  - a) \$1,000 as non-refundable deposit (paid).
  - b) \$5,000 upon the execution of the agreement (paid).
  - c) \$10,000 on or before April 22, 2021 (paid).
  - d) \$10,000 on or before October 22, 2022 (not paid).
  
- iii) Exploration expenditures
  - a) incur \$200,000 in exploration on or before October 22, 2022 (not fully incurred).

In relation to the acquisition, the Company is also required to issue the following as finder's fees:

- i) Share issuances
  - a) 3,333 common shares on or before October 22, 2019 (issued with a value of \$300).
  - b) 6,667 common shares on or before April 22, 2021 (issued with a value of \$2,267).
  - c) 6,667 common shares on or before October 22, 2022 (not issued).

The vendor will retain a royalty of \$8 per tonne of mineral products produced from the property, subject to a 50% buyback right for consideration of \$75,000.

As referenced earlier in this MDA, management made a decision to cease expending capital to finish the earn out of this property in the second quarter and relinquished its rights to this property in the second quarter. PLAN possesses an abundance of permitted and exploration stage zeolite properties now that it has a systematic payment plan to earn a 50% interest on the Bromley Creek Zeolite Mine as well as an option to earn a 50% interest in the Sun Group Zeolite Claims. Accordingly, the Company wrote-off the \$78,554 capitalized value of this exploration and evaluation asset during the three-month period ended October 31, 2022.

Management would like to thank Mr. Jeremy Marlow, the vendor of the property, for his professionalism in working with PLAN over the last two years as we assessed this property. Mr. Marlow is also the vendor of the Heffley Creek Metals and Pozzolan Property described below.

## **Heffley Creek Metals and Pozzolan Property, British Columbia**

On February 24, 2020, the Company entered into an option agreement to acquired 100% interest in Heffley Creek Natural Pozzolan Property in Heffley Creek, BC, for the following consideration:

- i) Cash payments
  - a) \$7,500 on or before February 25, 2020 (paid).
  - b) \$10,000 on or before February 10, 2021 (paid).
  - c) \$10,000 on or before February 10, 2022 (paid).
  - d) \$12,500 on or before February 10, 2023.
  - e) \$15,000 on or before February 10, 2024.
  
- ii) Exploration expenditures
  - a) incur \$50,000 in exploration on or before February 10, 2021 (incurred).
  - b) incur \$50,000 in exploration on or before February 10, 2022 (incurred).
  - c) incur \$75,000 in exploration on or before February 10, 2023 (incurred).
  - d) incur \$100,000 in exploration on or before February 10, 2024 (incurred)

The vendor retains a royalty of \$8 per tonne of industrial mineral products produced from the property, subject to a 75% buyback right for consideration of \$150,000. The vendor also retains a 3% net smelter return subject to a 50% buyback right for consideration of \$1,500,000.

PLAN optioned this property after conducting surface sampling which confirmed the presence of alumino-silicates (natural pozzolans), magnesium, and anomalous gold and silver. Five rock samples were taken and one soil sample. PLAN's original interest in the property was for its potential as a further source of natural pozzolans near Kamloops, BC. When surface sampling was done to confirm the presence of natural pozzolans, it revealed the presence of anomalous gold and silver in the soil (0.28 g/tonne gold and 1.6 g/tonne silver). As a result, PLAN obtained the precious metal rights to the property in addition to the industrial mineral rights.

The field exploration program was led by Dwayne Melrose, a director of PLAN and a professional geologist. When PLAN optioned Heffley Creek, the owner of the mineral claims believed there was potential for gold on the property. Since PLAN was required to spend \$275,000 on exploration on the property to earn a 100% interest, it commenced soil and hard rock sampling during the 2020 field exploration season and submitted these samples for precious metals and base metal assays.

In July 2020, PLAN received its first assays back from its soil and hard rock sampling and discovered that many of these samples had elevated nickel content.

In early August 2020, PLAN announced that the nickel in soil anomaly was over 500 meters long and by mid-August, PLAN announced that it had confirmed the presence of nickel in bedrock at Heffley Creek.

In late October 2020, PLAN announced that it has expanded the nickel in bedrock to a strike length of 800 meters and also confirmed anomalous chromium in bedrock with a strike length of 800 meters.

The field exploration program ended in November 2020 with the onset of snowfall in the area. PLAN subsequently completed the expenditure of the flow through funds it raised in December 2019 by conducting further detailed assaying on over two hundred rock samples collected during the field season. In addition, work was completed by ALS Metallurgy on rock lithologies to better understand the geological environment at Heffley Creek.

Most of the work on this property in 2021 included completing detailed geological mapping as well as designing a drill program. Third party contractors were hired to assess the suitability of drill hole locations. PLAN submitted a full application to drill this property in early 2021, including posting a required performance bond with the BC Ministry of Energy, Mines and Low Carbon Innovation and notified First Nations in the area of our intentions. PLAN has received the approved Heffley Notice of Work Permit on April 25, 2022 from the Ministry.

In Q2, further field sampling and detailed geological mapping of this property was conducted with this work finishing up in October as the winter season arrived early.

Approximately \$30,000 of the funds raised on a flow through basis remain to be expended and all of the \$275,000 in exploration expenses required to earn a 100% interest in this property has now been incurred.

Only \$27,500 in cash payments remain to be paid for the earn out on this mineral property to be completed.

## **OPERATING MINES**

### **Red Lake Diatomaceous Earth Mine**

With the acquisition of PPP, PLAN obtained ownership of two operating mines in BC, Canada including the Red Lake Mine approximately 60 kilometers from Kamloops, BC and the Bud Mine in Princeton, BC.

The Red Lake Mine is an operating mine which contains a unique diatomaceous earth with calcium bentonite. To PLAN's knowledge, there are only two mines in the world with this type of red tinged diatomaceous earth (diatomite) with calcium bentonite with the other mine located in Scandinavia.

The Red Lake Mine also contains a layer of leonardite sandwiched in between two different layers of diatomite which is rich in carbon and sulfur.

PPP extracts approximately 30,000 wet tonnes of diatomite from this mine per annum and processes this material into three different categories of products – non-clumping cat litter, industrial absorbents, and animal husbandry products.

The two different layers of diatomite are currently mined together and combined for the production of all of the products produced from this mine by PPP. In Q2, PPP began to assess the various differences in the two layers with respect to their suitability as both SCM's and for making regenerative fertilizers. This work is ongoing.

The layer of leonardite is stockpiled and used for reclamation. In addition, it is being used for reclamation research projects at two large gold mines in BC. PPP is also investigating the value of this material as a soil amendment for vineyards with two years of data already gathered in this field study.

PPP continues to be recognized for its efforts in reclaiming land. In doing so, the Company seeks to minimize the amount of disturbed land and to promote environmental stewardship. PPP's 1,000-acre ranch adjacent to its Red Lake Mine has been used for agricultural operations and utilizes leonardite. The reclaimed land at the Red Lake Mine has demonstrated higher yields after reclamation using leonardite versus pre-reclamation.

PPP takes immense pride in the environmental integrity of its operations and products with many of its products being listed for use in organic production by the Organic Material Review Institute ("OMRI"). PPP has a strong focus on sustainable use of resources including mined materials, electricity, natural gas, or other resources. PPP has reduced its use of natural gas and electricity per tonne over the past five years and uses approximately 98% of the material that is transported from the mines to the processing facility in Kamloops.

## **Bud Bentonite Clay Mine**

The Bud Mine is an operating mine which contains calcium bentonite. PPP extracts about 20,000 wet tonnes per year of this calcium bentonite and transports it to Kamloops where it converts it from calcium bentonite to sodium bentonite for the purpose of making multiple private label brands of cat litter for most of the big box stores in Canada while also producing our own in-house brand of clumping cat litter, WunderCat.

With the strategic decision to move away from producing lower margin private label clumping cat litter in Q2, less bentonite was transported in Q2 than is typical for this quarter. Like all of the industrial mineral assets that PPP owns, we consider this a valuable resource and are constantly evaluating higher margin opportunities.

While scaling back on lower margin business, the bentonite resource remains available as PPP moves towards building the WunderCat brand of cat litter. In addition, PPP is exploring newer higher margin opportunities for bentonite including its use in fertilizers, and geothermal systems and has several product trials underway with multiple end-users of bentonite in both of these new areas.

## **Bromley Creek Zeolite Mine (23% interest)**

In July 2022, PPP amended its agreement with International Zeolite Corporation (“IZ”) to purchase a 50% interest in IZ’s Bromley Creek Zeolite Mine (“Bromley Creek”) located in Princeton, BC for total consideration of \$725,000. PPP’s Bud Bentonite Clay Mine is also located in Princeton, BC.

Prior to the amendment, PPP had already paid \$102,000, which resulted in an ownership interest of 7% interest in Bromley Creek. The amendment stipulated that the remaining \$623,000 was to be paid in 20 equal quarterly installments beginning July 2022 and ending March 2027. In addition, the royalty payable by PPP to IZ per metric tonne of product mined and removed from the mine was reduced from \$9.00 to \$4.50. PPP remains the operator of Bromley Creek. The Company made a \$31,150 payment in July 2022, which increased its ownership interest to 18% as at July 31, 2022.

In the current quarter, PPP made its regular quarterly payment of \$31,150 and expanded its ownership percentage to 23%.

The amended agreement also formalized the option granted to PLAN by IZ to acquire up to a 50% interest in a separate group of mineral claims known as the “Sun Group” also located in Princeton, BC, for an additional purchase price of \$725,000, exercisable until July 26, 2027. To date, PLAN has acquired a 2.5% interest by paying \$36,250. No further payments were made to increase the ownership interest in the Sun Group claims during the current quarter.

PLAN has operated the Bud Bentonite Mine, also near Princeton, for over 24 years, so Princeton has become a significant operational hub for PLAN.

Zeolite from this mine is becoming a larger part of operations quarter by quarter as PPP develops markets for zeolite in the following areas:

- Animal feed additives (sold as Z-Lite Feed),

- Soil amendments (sold as The Green Patch and Hydr8), and,
- As an SCM under the tradename PozZeo SCM.

PPP anticipates that future products will be focused on Slow-release fertilizers and SCMs.

## LIQUIDITY AND CAPITAL RESOURCES

As at October 31, 2022, the Company's shareholders' equity was \$12,326,387.

The Company had the following cash flows during the six-month period ended October 31, 2022:

- i) Cash used in operating activities of \$579,046 (2021 - \$1,060,555) primarily resulted from the following:
  - a. The Company incurred a net loss for the period of \$396,179.
  - b. The Company increased its net working capital (excluding cash) by \$776,427, which included increases in accounts receivable, inventory and prepaid expenses and deposits, as well as reductions in bank indebtedness, accounts payable and accrued liabilities and deferred revenue.

The above factors were partially offset by the following factor which reduced the cash used:

- c. Included in the net loss was \$593,559 of non-cash expenses including \$346,760 of depreciation and amortization expense and \$123,730 of share-based compensation expense.
- ii) Cash used by investing activities of \$895,748 (2021 - \$249,513) consisted primarily of the following:
  - a. \$589,300 of cash used for the purchase of property, plant and equipment assets. During the current quarter, the Company acquired approximately \$528,000 of equipment assets, most of which are related to the operational expansion into the natural fertilizer business. In addition, the Company acquired building assets of approximately \$60,000 in order to create additional product and packaging storage space that was necessary to replace existing storage space which had been converted in fertilizer production facilities during the quarter.
  - b. \$254,267 of cash used for additions to mineral property assets. The majority of these expenditures pertain to exploration costs and acquisition payments for the Bromley Creek and Sun Group zeolite properties, in which the Company has interests.
- iii) Cash generated by financing activities of \$900,794 (2021 - \$419,667) consisted primarily of proceeds from option and warrant exercises (combined \$1,336,700), partially offset by the repayment of loans and lease obligations (combined \$435,906).



## COMMITMENTS AND CONTINGENCIES

PPP is committed to five land leases with Tk'emlúps te Secwepmc with annual payments totalling \$118,070. The leases contain clauses allowing the rental amount to be reviewed and adjusted every five years and the leases expire June 30, 2055. Further information can be found in Note 15 of the consolidated financial statements posted on [www.sedar.com](http://www.sedar.com).

PLAN has multi-year lease commitments on two forklifts, a transport truck, and a skid steer with the leases expiring between 2023 and 2025. Further information can be found in Note 15 of the consolidated financial statements posted on [www.sedar.com](http://www.sedar.com).

PPP has recorded asset retirement obligations for the estimated costs of reclaiming its Red Lake and Princeton Bentonite quarries. Due to the long-term nature of the liability, the greatest uncertainty in estimating the provision relates to the timing and costs that will be incurred. The estimated reclamation costs include costs of backfilling, grading, applying topsoil, and seeding and planting trees as required by British Columbia's Ministry of Energy, Mines and Low Carbon Innovation . Further information can be found in Note 17 of the consolidated financial statements posted on [www.sedar.com](http://www.sedar.com).

Under the terms of an amended agreement with IZ, PPP is required to pay \$560,700 in 18 remaining equal quarterly installments of \$31,150 from January 2023 until ending March 2027 in order to obtain an additional 32% interest in the Bromley Creek mine.

PPP, by agreement with the Government of British Columbia, is responsible for any future site restoration costs on its mining properties. At this time, the need for, or the nature of, any future site restorations costs in addition to those already disclosed in Note 17 of the consolidated financial statements cannot be reasonably determined.

PPP is contingently liable with respect to financial letters of credit issued by BMO for \$266,000.

## SHARE CAPITAL INFORMATION

As of November 22, 2022, the Company had the following outstanding:

Common shares – 100,011,151 outstanding

Stock options:

Options Outstanding	Exercise Price	Expiry Date
108,000	0.195	13-Jan-23
50,000	0.38	8-Feb-23
1,150,000	0.39	22-Feb-23
125,000	0.41	1-Mar-23
175,000	0.395	17-Mar-23
375,000	0.43	6-May-23
100,000	0.34	20-Sep-23
3,000,000	0.39	22-Feb-24
200,000	0.29	13-May-24
175,000	0.32	18-Jul-24
50,000	0.35	26-Jul-24
150,000	0.35	17-Aug-24
1,500,000	0.36	24-Aug-24
400,000	0.36	09-Sep-24
15,000	0.36	13-Sep-24
200,000	0.35	9-Nov-24
300,000	0.40	14-Mar-25
1,830,000	0.35	6-Apr-25
50,000	0.35	27-Jul-25
<b>9,953,000</b>		

Warrants:

Warrants Outstanding	Exercise Price	Expiry Date
382,500	0.35	10-Feb-23
512,936	0.20	12-Feb-23
6,975,000	0.25	12-Feb-23
119,267	0.35	25-Feb-23
11,470,500	0.60	10-Feb-24
6,293,140	0.60	25-Feb-24
8,333,332	0.36	02-Mar-25
<b>34,086,675</b>		

## RELATED PARTY TRANSACTIONS

The Company defines key management as officers and directors. For the six-month period ended October 31, 2022, the Company had the following transactions with key management, being related parties:

- i) paid or accrued a performance bonus of \$100,000 (2021 - \$nil) to a corporation owned by the Company's CEO.
- ii) paid or accrued management fees of \$nil (2021 - \$39,000) to a corporation owned by the Company's CEO for his services as President and CEO.
- iii) paid or accrued fees of \$nil (2021 - \$21,000) to a corporation owned by the Company's CEO for services relating to research and development.
- iv) paid or accrued director fees of \$15,000 (2021 - \$12,000) to the directors of the Company.
- v) paid or accrued professional fees of \$98,000 (2021 - \$36,000) to a corporation owned by the Company's CFO.
- vi) paid or accrued advertising and promotion consulting fees and wages of \$Nil (2021- \$7,500) to the CEO's spouse.
- vii) granted a total of nil stock options (2021 - 450,000) to officers and directors of the Company, of which the fair market value was estimated at \$nil (2021 - \$128,000) and was included in share-based compensation expense.

As at October 31, 2022, \$37,029 (April 30, 2022- \$45,384) is included in accounts payable and accrued liabilities which is comprised of amounts owed to the CEO, a corporation owned by the Company's CEO, and a corporation owned by the Company's CFO, and to the CEO's spouse.

## SIGNIFICANT ACCOUNTING POLICIES AND ESTIMATES

Please refer to the Company's accompanying consolidated financial statements for the six-month period ended October 31, 2022 located on [www.sedar.com](http://www.sedar.com).

## FINANCIAL INSTRUMENT RISK EXPOSURE AND RISK MANAGEMENT

The Company has exposure to the following risks arising from financial instruments:

- Market risk (see a)
- Credit (see b)
- Liquidity risk (see c)

### (a) Market risk

Market risk is the risk that changes in market prices – e.g., foreign exchange rates, interest rates – will affect the Company's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing returns.

Interest rate risk:

The Company's long-term debt is subject to interest rate risk as the required payments to service the debts will fluctuate as a result of the variable lending rate. There has been an increase to the interest rate risk exposure from 2021 due to an increase in long-term debt during the year.

An increase of 100 basis points on interest rates would have increased finance costs by \$98,000 (2021: \$1,680). This analysis assumes that all other variables remain constant.

Currency risk:

The Company is exposed to financial risks as a result of exchange rate fluctuations and the volatility of these rates. The Company does not currently enter into forward contracts to mitigate this risk. There has been an increase to the risk exposure from 2021 due to an increase in U.S. denominated revenues.

The summary quantitative data about the Company's exposure to currency risk is as follows:

	October 31, 2022	April 30, 2022
	USD	USD
Cash	\$ 595,465	\$ 482,901
Trade receivables	683,950	614,043
Tax receivable	13,870	13,870
Accounts payable	(86,167)	(40,035)
	\$ 1,207,118	\$ 1,070,779

(b) Credit risk

Credit risk refers to the risk that a counterparty may default on its contractual obligations resulting in a financial loss. The Company deals with creditworthy counterparties to mitigate the risk of financial loss from defaults. The Company monitors the credit risk of customers through credit rating reviews. The Company limits its exposure to credit risk from trade receivables by establishing a maximum payment period of 45 days.

In management's opinion, the maximum amount of credit risk is the carrying value of those assets. There has not been a change in who the Company extends credit to. Despite the impacts of COVID-19, the Company's exposure to credit risk remains unchanged. The Company uses a provision matrix to analyze impairment of its trade receivables at the end of each reporting date. During the period ended October 31, 2022, the Company recognized an impairment loss allowance on trade receivables of \$nil (April 30, 2022 - \$nil) in profit or loss.

The Company's aged trade receivables and related expected credit loss allowance are as follows:

As at October 31, 2022	Geographic location			ECL allowance	Credit impairment
	Canada	US	Total		
Current (not past due)	\$ 555,442	\$ 774,642	\$ 1,330,084	\$ -	No
1 – 30 days past due	322,618	133,675	456,293	-	No
31 – 60 days past due	19,977	5,805	25,782	-	No
Over 60 days past due	43,860	2,582	46,442	-	-
	\$ 1,263,197	\$ 936,410	\$ 1,858,601	\$ -	-

As at April 30, 2022	Geographic location			ECL allowance	Credit impairment
	Canada	US	Total		
Current (not past due)	\$ 630,722	\$ 727,536	\$ 1,358,257	\$ -	No
1 – 30 days past due	227,705	57,947	285,553	-	No
Over 30 days past due	-	-	-	-	No
	\$ 858,327	\$ 785,483	\$ 1,643,810	\$ -	-

Cash and cash equivalents

The Company held cash and cash equivalents of \$1,196,682 at October 31, 2022 (April 30, 2022 - \$1,770,682). The cash and cash equivalents are held with bank rated at AA-, based on Fitch ratings.

(c) Liquidity risk

Liquidity risk is the risk that the Company will be unable to fulfil its obligations on a timely basis or at a reasonable cost. The Company manages its liquidity risk by monitoring its operating requirements. The Group prepares budget and cash forecasts to ensure it has sufficient funds to fulfil its obligations. In addition, the Company maintains an operating line of credit facility that can be drawn on to meet short-term financing needs.

<b>As at October 31, 2022</b>	Contractual cash flows				Fiscal 2026 and thereafter
	Carrying amount	Remainder fiscal 2023	Fiscal 2024	Fiscal 2025	
Bank indebtedness	\$ 1,234,278	\$ 1,234,278	\$ -	\$ -	\$ -
Accounts payable	1,601,049	1,601,049	-	-	-
Lease liabilities	2,503,535	69,494	171,259	183,430	3,742,169
Loans payable	8,364,799	298,650	607,300	637,300	6,323,799
	<u>\$ 12,703,661</u>	<u>\$ 3,203,471</u>	<u>\$ 778,559</u>	<u>\$ 820,730</u>	<u>\$ 10,065,968</u>

<b>As at April 30, 2022</b>	Contractual cash flows				Fiscal 2026 and thereafter
	Carrying amount	Fiscal 2023	Fiscal 2024	Fiscal 2025	
Bank indebtedness	\$ 1,417,539	\$ 1,417,539	\$ -	\$ -	\$ -
Accounts payable	1,731,878	1,731,878	\$ -	\$ -	\$ -
Lease liabilities	2,553,918	183,316	171,259	183,430	3,742,169
Loans payable	8,713,224	647,075	607,300	637,300	6,323,799
	<u>\$ 14,416,559</u>	<u>\$ 3,979,808</u>	<u>\$ 778,559</u>	<u>\$ 820,730</u>	<u>\$ 10,065,968</u>

(d) Fair value disclosure

The Company's financial instruments consist of cash and cash equivalents, accounts receivable, investments in private companies, bank indebtedness, accounts payable and accrued liabilities, and loans payable. Investments in private companies are carried at fair value. The fair values of cash and cash equivalents, accounts receivable, bank indebtedness and accounts payable and accrued liabilities approximate their carrying amounts due to their current nature.

Loans payable have been valued using the discounted cash flow method. This valuation model considers the present value of expected payments, discounted using a risk-adjusted discount rate.

	October 31, 2022		April 30, 2022	
	Carrying amount	Fair Value (Level 2)	Carrying amount	Fair Value (Level 2)
Loans payable	\$ 8,364,799	\$ 8,351,078	\$ 8,713,224	\$ 8,701,218

(e) Capital management:

The Board's policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Company monitors capital using a ratio of "net debt" to equity. For this purpose, net debt is defined as total liabilities (as shown in the statement of financial position) less cash and cash equivalents.

Equity comprises all components of equity. The Company's net debt to equity ratio at the end of the reporting year was as follows:

	October 31, 2022	April 30, 2022
Total liabilities	\$ 16,160,166	\$ 17,032,985
Less: cash	(1,196,682)	(1,770,682)
Less: restricted cash (Note 4)	-	(266,000)
Net debt	14,963,484	14,996,303
Total equity	\$ 12,326,387	\$ 11,262,136
Net debt to equity	1.21	1.33

## **OFF-BALANCE SHEET ARRANGEMENTS**

The Company has no off-balance sheet arrangements.

## **OTHER MD&A REQUIREMENTS**

Additional disclosure of the Company's technical reports, material change reports, news releases and other information can be obtained on SEDAR at [www.sedar.com](http://www.sedar.com).



## **RISKS AND UNCERTAINTIES**

The Company is subject to a number of risks. The risks and uncertainties described below are significant risks that management of the Company is aware of and believe to be material to the business and results of the Company. When reviewing forward-looking statements and other information contained in this MD&A, readers should carefully consider these factors, as well as other uncertainties, potential events and industry and Company-specific factors that may adversely affect the Company's financial status. New risk factors may emerge from time to time, and it is not possible for the Company's management to predict all risk factors or the impact of such factors on the Company. The Company assumes no obligation to update or revise these risk factors or other information contained in this MD&A to reflect new events or circumstances, except as may be required by law.

### Risks Related to the Company and its Operations

#### *Integration of PPP*

The Company's ability to maintain and successfully operate its business depends upon the judgment and project execution skills of its senior professionals. Any management disruption or difficulties in integrating PPP's management and operations staff could significantly affect the Company's business and results of operations. The success of the Company's acquisition of PPP will depend, in some part, on the ability of management to realize the anticipated benefits and cost synergies from the integration of PPP's businesses into the Company's. The integration of the businesses may result in significant challenges, and management may be unable to accomplish the integration smoothly, or successfully, in a timely manner or without spending significant amounts of money. It is possible that the integration process could result in the loss of key employees, the disruption of the respective ongoing businesses or inconsistencies in standards, controls, procedures and policies that adversely affect the ability of management to maintain relationships with business partners or employees or to achieve the anticipated benefits of the acquisition.

The integration of PPP requires the dedication of effort, time and resources on the part of management, which may divert management's focus and resources from other strategic opportunities and from operational matters during this process. There can be no assurance that the Company will be able to integrate the operations of the business successfully or achieve any of the synergies or other benefits that are anticipated as a result of its acquisition of PPP. The extent to which synergies are realized and the timing of such cannot be assured.

Any inability of the Company to successfully integrate PPP's operations could have a material adverse effect on the Company's business, financial condition and results of operations. The challenges involved in the integration may include, among other things, the following: retaining key personnel; integrating PPP into the Company's existing accounting system and adjusting the Company's internal control environment to cover PPP's operations; and unplanned costs required to integrate the business and achieve synergies.

### *Cost Synergies*

Although it is anticipated that the Company will achieve some annual cost synergies from its acquisition of PPP, the Company may or may not achieve these cost synergies imminently or at all.

The Company continues to analyze potential synergies to be realized from its acquisition of PPP, although actual synergies could differ materially from current estimates. Actual cost synergies, the expenses required to realize the cost synergies and the sources of the cost synergies could differ materially, and there is no assurance that the Company will achieve the full amount of cost synergies or at all or that these cost synergy programs will not have other adverse effects on its business.

### *Historic Performance of PPP outside of the Company's Control*

Historic performance of PPP's business and operations may not be indicative of the Company's success in future periods. The future performance of the Company may be influenced by, among other factors, economic downturns, long-term changes in consumer trends, preferences and spending patterns and other factors beyond the Company's control. As a result of any one or more of these factors, among others, the operations and financial performance of the Company may be negatively affected which may adversely affect the Company's future financial results.

### *Uncertainty of Future Revenues*

The Company's future growth and prospects will depend on its ability to maintain and potentially expand the Company and PPP's current operations and gain additional revenue streams, while maintaining effective cost controls. Any failure to do so will likely have a material adverse effect on the Company's business, financial condition and results.

Changes in the Company's capital costs and operating costs are likely to have an impact on its profitability. The Company's main planned production expenses include mining costs, transport costs, processing and treatment costs and other overheads. Changes in costs of the Company's mining and processing operations can occur as a result of unforeseen events and could result in changes in profitability or resource estimates, including rendering certain mineral reserves uneconomic to mine. Many of these changes may be beyond the Company's control. Material increases in costs could have a material adverse effect on the Company's future cash flows, profitability, results of operations and the financial condition.

### *Dependence on Key Personnel*

The Company has a small management team and the loss of a key individual could have an adverse effect on the future of its business or cause delay in its plans. The Company's future success will also depend in large part upon its ability to attract and retain appropriate personnel. There can be no assurance that the Company will be successful in attracting and retaining such personnel and an inability to do so could have a material and adverse effect on the Company's business, results of operations, financial condition and prospects.

### *Workforce and Labour Risks*

Certain of the Company's operations may be carried out under potentially hazardous conditions. While the Company intends to operate in accordance with relevant health and safety regulations and requirements, the Company is susceptible to the possibility that liabilities might arise as a result of accidents or other workforce-related misfortunes, some of which may be uninsurable or beyond the Company's control.

The Company's operations may be affected by labour-related problems in the future, such as unionization. There can be no assurance that work stoppages or other labour-related developments will not adversely affect the results of the Company's operations or the financial condition.

During periods of growth in the mining industry, there is increased competition for the services of suitably qualified and/or experienced sub-contractors, such as mining and drilling contractors, assay laboratories, metallurgical test work facilities and other providers of engineering, project management and mineral processing services.

As a result, the Company may experience difficulties in sourcing and retaining the services of suitably qualified and/or experienced sub-contractors. The loss or diminution in the services of suitably qualified and/or experienced sub-contractors or an inability to source or retain necessary sub-contractors or their failure to properly perform their services could have a material and adverse effect on the Company's business, results of operations, financial condition and prospects.

The Company is unable to predict the risk of insolvency or other managerial failure by any of the contractors or other service providers currently or in the future used by the Company in its activities. Any of the foregoing may have a material adverse effect on the Company's results of operations or financial condition. In addition, the termination of these arrangements, if not replaced on similar terms, could have a material adverse effect on the Company's results of operations or the financial condition.

### *Competition*

The Company faces potential competition from other companies in connection with the acquisition of mineral assets, or from other innovation companies in connection with the development of competitive technologies or applications, as well as for the recruitment and retention of qualified employees. Larger companies, in particular, may have access to greater financial resources, operational experience and technical capabilities than the Company, which may give them a competitive advantage.

### *Future Acquisitions and Joint-Ventures*

The Company may evaluate opportunities to acquire and/or joint venture additional assets and businesses as part of its business objectives. These acquisitions or joint ventures may be significant in size, may change the scale of the Company's business and may expose it to new geographic, operating, financial and geological risks. The Company's success in its acquisition and/or joint venture activities will depend on its ability to identify suitable acquisition and/or joint venture

candidates and partners, acquire or joint venture them on acceptable terms and integrate their operations successfully with those of the Company. Any acquisitions or joint ventures would be accompanied by risks, such as the difficulty of assimilating the operations and personnel of any acquired companies; the potential disruption of the Company's ongoing business; the inability of management to maximize the financial and strategic position of the Company through the successful incorporation of acquired assets and businesses or joint ventures; additional expenses associated with amortization of acquired intangible assets; the maintenance of uniform standards, controls, procedures and policies; the impairment of relationships with employees, customers and contractors as a result of any integration of new management personnel; dilution of the Company's present shareholders or of its interests in its subsidiaries or assets as a result of the issuance of shares to pay for acquisitions or the decision to grant earning or other interests to a joint venture partner; and the potential unknown liabilities associated with acquired assets and businesses. There can be no assurance that Company would be successful in overcoming these risks or any other problems encountered in connection with such acquisitions or joint ventures. There may be no right for shareholders to evaluate the merits or risks of any future acquisition or joint venture undertaken except as required by applicable laws and regulations.

#### *Dependence on Third Party Services*

The Company currently relies and will continue to rely on products and services provided by third parties. If there is any interruption to the products or services provided by such third parties, the Company unable to find adequate replacement services on a timely basis or at all.

The Company is unable to predict the risk of insolvency or other managerial failure, or the failure to otherwise deliver such products and services, by any of the contractors or other service providers currently or in the future used by the Company.

#### *Reliance on Strategic and Commercial Relationships*

In conducting its business, the Company relies and will continue to rely on continuing existing strategic and commercial relationships, and forming new relationships with other entities and also certain regulatory and governmental departments. There can be no assurance that its existing relationships will continue to be maintained or that new ones will be successfully formed, and the loss of these relationships could have a material adverse effect on the results of the Company's operations or the financial condition.

#### *Project Risks*

The Company manages and participates in a variety of projects in the conduct of its business. The Company's ability to execute projects and market its products will depend upon numerous factors beyond its control, including: the availability of processing capacity; the availability of storage capacity; the supply of and demand for pozzolanic materials; the availability of equipment; unexpected cost increases; accidental events; currency fluctuations; changes in regulations; the availability and productivity of skilled labour; and the regulation of the industry by various levels of government and governmental agencies.

Because of these factors, the Company could be unable to execute projects on time, on budget or at all, and may not be able to effectively market products that it produces. The existence of these factors may delay expected revenues from operations and cause cost estimates not to be accurate, which may result in significant cost over-runs that could make the Company's ventures uneconomical, either of which would have a material and adverse effect on the Company's business, financial condition and results of operations.

### *Compliance with Laws*

The Company's operations are, and will going forward be, subject to various laws and regulations relating to the protection of the environment (including regular environmental impact assessments and the obtaining of appropriate permits or approvals by relevant environmental authorities), worker health and safety, employment standards, waste disposal, protection of historic and archaeological sites, mine development, protection of endangered and protected species, Indigenous communities' rights and other matters.

Any such legislation, and environmental legislation in particular, can, in certain jurisdictions, comprise numerous regulations which might conflict with one another and which cannot be consistently interpreted. Such regulations typically cover a wide variety of matters including, without limitation, prevention of waste, pollution and protection of the environment, labour regulations and worker safety. The Company may also be subject under such regulations to clean-up costs and liability for toxic or hazardous substances which may exist on or under any of its properties or which may be produced as a result of its operations. Compliance with these laws and regulations is costly and time intensive and the Company's complete compliance with all such laws and regulations cannot be guaranteed given the nature and complexity of such laws and regulations.

Any failure to comply with relevant environmental, health and safety and other laws and regulatory standards may subject the Company to extensive liability and fines and/or penalties and have an adverse effect on the Company's business, results of operations, or prospects.

In particular, a violation of environmental health and safety laws relating to a mine or other plant or a failure to comply with the instructions of the relevant environmental or health and safety authorities could lead to, among other things, a temporary shutdown of all or a portion of the mine or other plant, a loss of the right to mine or to use other plant, or the imposition of costly compliance procedures. If health and safety authorities require the Company to shut down all or a portion of a mine, or other plant or to implement costly compliance measures, whether pursuant to existing or new environmental or health and safety laws and regulations, such measures could have a material adverse effect on the Company's results of operations or financial condition. Furthermore, the future introduction or enactment of new laws, guidelines and regulations could serve to limit or curtail the growth and development of the Company's business or have an otherwise negative impact on its operations. Any changes to, or increases in the current level of regulation or legal requirements may have a material adverse effect upon the Company in terms of additional compliance costs.

Mining operations have inherent risks and liabilities associated with pollution of the environment and the disposal of waste products occurring as a result of mineral exploration and production. Laws and regulations involving the protection and remediation of the environment and the governmental policies for implementation of such laws and regulations are constantly changing and are generally

becoming more restrictive. As a result, there are certain risks inherent in the Company's activities and those which it anticipates undertaking in the future, such as, but not limited to, risks of accidental spills, leakages or other unforeseen circumstances, that could subject the Company to potential liability. The Company cannot give any assurance that breaches of environmental laws (whether inadvertent or not) or environmental pollution will not materially and adversely affect its financial condition and its results from operations.

### *First Nations*

The Company operates in some areas presently or previously inhabited or used by First Nations peoples. There are many laws, rules and regulations that address the rights of First Nations peoples. Some mandate governmental consultation with First Nations regarding actions which may affect First Nations people, including actions to approve or grant mining rights or permits. The obligations of government and private parties under these laws, rules and regulations continue to evolve and be defined.

The Corporation's current and future operations are subject to a risk that one or more First Nations may oppose continued operation, further development, or new development of the Company's projects or operations. Such opposition may be directed through legal or administrative proceedings or expressed in manifestations such as protests, roadblocks or other forms of public expression against the Company's activities. Opposition by First Nations to the Company's operations may require modification of or preclude operation or development of the Corporation's projects or may require the Company to enter into agreements with First Nations with respect to the Company's projects, which may impact the Company's business, operations and financial condition.

### *Exploration and Development*

Some of the Company's mineral assets are in exploration or development stage, and further development may only follow upon obtaining continuing satisfactory exploration results and being able to obtain sufficient financing to continue the development and eventual commercial production of potash. Mineral exploration and development are speculative in nature and involve a high degree of risk and few properties which are explored are ultimately developed into producing mines. There is no assurance that the Company's mineral exploration and development activities will result in any additional discoveries of reserves of potash or that the current reserves or resources will be developed to production or be commercially viable. The long-term profitability of the Company's operations will be in part directly related to the cost and success of its exploration programs, which may be affected by a number of factors.

Substantial expenditures are required to establish resources and reserves through drilling and development and for mining and processing facilities and infrastructure. Although substantial benefits may be derived from the discovery of a major mineralized deposit, no assurance can be given that minerals will be discovered in sufficient quantities to justify commercial operations or that the funds required for development can be obtained on a timely basis.

### *Calculation of Reserves and Resources*

Mineral Reserves and Mineral Resources are based on estimates of mineral content and quantity derived from limited information acquired through drilling and other sampling methods and require judgmental interpretations of geology, structure, grade distributions and trends, and other factors. These estimates may change as more information is obtained. No assurance can be given that the estimates are accurate or that the indicated level of mineral product will be produced. Actual mineralization or formations may be different from those predicted. Further, it may take many years from the initial phase of drilling before production is possible, and during that time the economic feasibility of exploiting a discovery may change.

In addition, the Mineral Reserve and Mineral Resource estimates are subject to updates from time to time as the geological and technical information on the mineralization increases. These Mineral Reserve and Mineral Resource updates may result in reclassification of resources from one category of resources to another and these reclassifications may have a follow-on impact on reserves. To the extent that these reclassifications of resources are from a higher category to a lower category, there may be a resulting negative impact on related Mineral Reserves. Any reduction of reserves resulting from reclassification of resources may ultimately impact on project economics, including net present values and internal rates of return. For future projects, these reductions may impact adversely on production decisions. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. It cannot be assumed that all or any part of declared Mineral Resources constitute or will be converted into reserves. Market price fluctuations of minerals as well as increased production and capital costs, reduced recovery rates or technical, economic, regulatory or other factors may render proven and probable reserves unprofitable to develop at a particular site or sites for periods of time or may render Mineral Reserves containing relatively lower grade mineralization uneconomic. Successful extraction requires safe and efficient mining and processing. Moreover, short-term operating factors relating to the Mineral Reserves, such as the need for the orderly development of ore bodies or the processing of new or different ore types, may cause Mineral Reserves to become uneconomic. Estimated reserves may have to be recalculated based on actual production experience. Any of these factors may require the reduction of the Mineral Reserve and Mineral Resource.

There is also no assurance that the Company will achieve indicated levels of recovery or obtain the prices for production assumed in determining the amount of any reserves. Anticipated levels of production may be affected by numerous factors, including mining conditions, labour availability and relations, weather and supply shortages.

### *Permits and Government Approvals*

The operations of the Company require licenses and permits from various governmental authorities. There can be no assurance that the Company will be able to obtain or maintain all necessary licenses and permits that are required to carry out exploration and development at its properties. Regulations and policies relating to licenses and permits may change or be implemented in a way that the Company does not currently anticipate and permits and licenses may take significantly greater time to obtain than anticipated by the Company. These licenses and permits are subject to numerous requirements, including compliance with the environmental regulations, which may be

difficult, time consuming, expensive or impossible for the Company to fulfill. The failure of the Company to obtain necessary licenses and permits on the timeline required, or at all, or the revocation or suspension of the permits or licenses obtained by the Company, could have a material adverse effect on its business, financial condition and results of operations.

#### *Reclamation*

There is a risk that monies allotted for land reclamation may not be sufficient to cover all risks, due to changes in the nature of the waste rock or tailings and/or revisions to government regulations. Therefore, additional funds, or reclamation bonds or other forms of financial assurance may be required over the tenure of the Company's mineral projects to cover potential risks. These additional costs may have a material adverse impact on the Company's financial condition and results.

#### *Litigation*

The Company may be subject to litigation arising in the normal course of business and may be involved in disputes with other parties, including governments and its workforce, in the future which may result in litigation. The causes of potential future litigation cannot be known and may arise from, among other things, business activities, environmental laws, volatility in stock price, failure to comply with disclosure obligations or labour disruptions at the Company's projects. The results and costs of litigation cannot be predicted with certainty. If the Company is unable to resolve these disputes favorably, it may have a material adverse impact on the Company's financial performance, cash flow and results of operations.

#### *Government Regulation and Political Risk*

The Company's operating activities are subject to laws and regulations governing expropriation of property, health and worker safety, employment standards, waste disposal, protection of the environment, mine development, land and water use, prospecting, mineral production, exports, taxes, labour standards, occupational health standards, toxic wastes, the protection of endangered and protected species and other matters. Future changes in applicable laws, regulations, agreements or changes in their enforcement or regulatory interpretation could result in changes in legal requirements or in the terms of existing permits and agreements applicable to the Company or its properties, which could have a material adverse impact on the Company's current operations or planned development projects. Where required, obtaining necessary permits and licenses can be a complex, time consuming process and the Company cannot assure whether any necessary permits will be obtained on acceptable terms, in a timely manner or at all. The costs and delays associated with obtaining necessary permits and complying with these permits and applicable laws and regulations could stop or materially delay or restrict the Company from proceeding with any future exploration or development of its properties, which could have a material adverse impact on the Company's ongoing or planned operations or ongoing or planned development projects.

#### *Operating Risks*

The Company's activities are subject to all of the hazards and risks normally incidental to exploring and developing natural resource projects. These risks and uncertainties include, but are not limited



to, environmental hazards, industrial accidents, labour disputes, encountering unusual or unexpected geological formations or other geological or grade problems, unanticipated changes in metallurgical characteristics and mineral recovery, encountering unanticipated ground or water conditions, cave-ins, pit wall failures, flooding, rock bursts, periodic interruptions due to inclement or hazardous weather conditions and other acts of God or unfavourable operating conditions and losses.

Should any of these risks and hazards affect the Company's exploration, development or mining activities, it may cause the cost of production to increase to a point where it would no longer be economic to produce mineral resources from the Company's properties, require the Company to write-down the carrying value of one or more mineral projects, cause delays or a stoppage of mining and processing, result in the destruction of mineral properties or processing facilities, cause death or personal injury and related legal liability; any and all of which may have a material adverse effect on the Company.

#### *Uninsured Hazards*

The Company may be subject to substantial liability claims due to the inherently hazardous nature of its activities or for acts and omissions of contractors, sub-contractors or operators. Any indemnities the Company may receive from such parties may be limited or may be difficult to enforce if such contractors or sub-contractors or operators lack adequate resources.

The Company can give no assurance that the proceeds of insurance applicable to covered risks will be adequate to cover expenses relating to losses or liabilities. The Company is also subject to the risk of unavailability, increased premiums or deductibles, reduced cover and additional or expanded exclusions in connection with its insurance policies and those of operators of assets it does not itself operate. Accordingly, the Company might become subject to liability for which it is completely or partially uninsured, or for which it elects not to ensure because of unavailability, premium costs or other reasons. Losses from these events may cause the Company to incur significant costs that could have a material adverse effect upon the financial condition and/or results of operations of the Company.

#### *Weather Conditions and Climate Change*

It may not be possible to fully insure against adverse weather conditions, and should such events occur, liabilities may arise which could reduce or eliminate any future profitability, result in increasing costs or the loss of the Company's assets and a decline in the value of its securities. The Company acknowledges climate change and that increased environmental regulation resulting therefrom may adversely affect its operations.

There is no assurance that the response of the Company to the risks posed by climate change and the corresponding legislation and regulation will be effective and the physical risks of climate change will not have an adverse effect on its operations and profitability.

### *Transportation Delays*

The Company is reliant upon public and privately owned transportation infrastructure to transport its products offsite. Unusual or infrequent weather phenomena, sabotage, government or other interference in the maintenance or provision of such infrastructure could adversely affect the Company's operations, financial condition and results of operations. Any such issues arising in respect of the supporting infrastructure or on the Company's worksites could materially and adversely affect the Company's results of operations or financial condition. Furthermore, any failure or unavailability of the Company's operational infrastructure (for example, through equipment failure or disruption to its transportation arrangements) could adversely affect the production or distribution of its products.

### *Intellectual Property*

The Company has several research and development projects ongoing, through which new intellectual property assets may develop. Any infringement of the Company's rights in such intellectual property assets may affect the Company's operations and results.

Further, the Company may face allegations that it has infringed the trademarks, copyrights, patents or other intellectual property rights of third parties, including from its competitors. Infringement and other intellectual property claims, with or without merit, can be expensive and time-consuming to litigate, and the results are difficult to predict. The Company may not have the financial or human resources to defend against any infringement suits that may be brought. As a result of any court judgement or settlement, the Company may be obligated to cancel the continued research and development of new products or applications, the launch of a new product or application offerings, pay royalties or significant settlement costs, purchase licenses, or modify the Company's products and applications, or develop substitutes.

### *Potential Conflicts of Interest*

Certain of the Company's directors and officers also serve as directors and officers of other public and private companies or have significant shareholdings in other public and private companies. Consequently, there exists the possibility that such individuals will be in a position of a conflict of interest in the ordinary course of the Company's business in dealings between these companies and the Company. While applicable corporate law requires any decision made by directors and executive officers to be made in accordance with applicable laws and the duties and obligations of such individuals to act honestly, in good faith and in the best interests of the Corporation, the Corporation does not have any agreements mandating the Company's directors and officers act in the best interests of the Company and there can be no assurance that any such conflicts will be resolved in favour of the Company. If any such conflicts are not resolved in favour of the Company, it may be adversely affected.

### *Debt*

The Company has obtained loan and credit facilities from banks, and, as part of its acquisition of APL, has assumed bank indebtedness of APL. The Company's debt burden could have important

consequences, including: increasing its vulnerability to general adverse economic and industry conditions; limiting flexibility in planning for, or reacting to, changes in its business and industry; requiring the dedication of a substantial portion of any cash flows from operations for the payment of principal and interest on our indebtedness, thereby reducing the availability of cash flow to fund operations, growth strategy, working capital, capital expenditures, future business opportunities, and other general corporate purposes; restricting the Company from making strategic acquisitions or causing it to make non-strategic divestitures; limiting its ability to obtain additional financing for working capital, capital expenditures, research and development, acquisitions and general corporate or other purposes; limiting its ability to adjust to changing market conditions; and placing it at a competitive disadvantage relative to competitors who have lower levels of debt. Further, if and when the Company has borrowings at floating rates of interest, it could expose us to the risk of increased interest rates with respect to those borrowings.

### Risks Related to the Company's Common Shares

#### *Share Price Volatility*

The market price of the Company's common shares may be subject to wide price fluctuations in response to many factors, including variations in the Company's operating results, divergence in financial results from analysts' expectations, changes in earnings estimates by stock market analysts, changes in the business prospects of LEAF, general economic conditions, legislative changes, and other events and factors outside of the Company's control. In addition, stock markets have from time to time experienced extreme price and volume fluctuations, which, as well as general economic political conditions, could adversely affect the market price for the Company's common shares.

#### *Dividends*

It is not anticipated that the Company will pay dividends on its shares in the foreseeable future. Dividends paid by the Company would be subject to tax and, potentially, withholdings.

#### *Market Perception*

Market perception of smaller mining companies may change which could impact on the value of investors' holdings and impact on the ability of the Company to raise further funds by issue of further common shares. Future issues or sales of the common shares could cause the share price to decline. If the Company issues equity or debt securities in the future or if shareholders sell a substantial number of the Company's common shares in the public market, or if there is a perception that these sales or issuances might occur, the market price of the Company's common shares could decline.

#### *Dilution*

The Company may sell additional equity securities (including through the sale of securities convertible into common shares) and may issue additional debt or equity securities to finance operations, exploration, development, acquisitions or other projects. The Company is authorized to issue an unlimited number of common shares. Management cannot predict the size of future sales and issuances of debt or equity securities or the effect, if any, that future sales and issuances of debt

or equity securities will have on the market price of the Company's common shares. Sales or issuances of a substantial number of equity securities, or the perception that such sales could occur, may adversely affect prevailing market prices for the common shares. With any additional sale or issuance of equity securities, shareholders will suffer dilution of their voting power and may experience dilution in earnings per share.

#### *Liquid Trading Market for the Common Shares*

Shareholders of the Company may be unable to sell significant quantities of common shares into the public trading markets without a significant reduction in the price of the Company's common shares, or at all. There can be no assurance that there will be sufficient liquidity of the Company's common shares on the trading market, and that the Company will continue to meet the listing requirements of the TSX-V, OTCQB or achieve listing on any other public listing exchange.

#### **QUALIFIED PERSON**

The technical content of this MD&A has been reviewed and approved by Dwayne Melrose, P.Geo., a director of the Company and a qualified person as defined in Canadian Securities Administrators National Instrument 43-101, and is a member of the Association of Professional Engineers and Geoscientists of British Columbia.

## FORWARD-LOOKING STATEMENTS

Certain information in this MD&A, including all statements that are not historical facts, constitutes forward-looking information within the meaning of applicable Canadian securities laws. Such forward-looking information may include, but is not limited to, information which reflect management's expectations regarding the Company's future growth, results of operations (including, without limitation, future production and capital expenditures), performance (both operational and financial) and business prospects (including with respect to the Company's products) and opportunities. Often, this information includes words such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate" or "believes" or variations of such words and phrases or statements that certain actions, events or results "may", "could", "should", "would", "might" or "will" be taken, occur or be achieved.

In making and providing the forward-looking information included in this MD&A the Company's assumptions may include among other things: (i) successful integration of APL into the Company's business; (ii) assumptions about operating costs and expenditures; (iii) assumptions about management and personnel; (iv) assumptions about competition; (v) assumptions regarding third party service providers; (vi) assumptions regarding legal and regulatory risks; (vii) assumptions regarding the Company's intellectual property assets; (viii) assumptions about the Company's debt burdens; (ix) assumptions about future production and recovery; (x) that there is no unanticipated fluctuation in foreign exchange rates; and (xi) that there is no material deterioration in general economic conditions. Although management believes that the assumptions made and the expectations represented by such information are reasonable, there can be no assurance that the forward-looking information will prove to be accurate. By its nature, forward-looking information is based on assumptions and involves known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements, or results, to be materially different from future results, performance or achievements expressed or implied by such forward-looking information. Such risks, uncertainties and other factors include among other things, those described in the "Risk and Uncertainties" portion of this MD&A.

Although the Company has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in the forward-looking information, there may be other factors that cause actual results, performances, achievements or events not to be anticipated, estimated or intended. Also, many of the factors are beyond the Company's control. Accordingly, readers should not place undue reliance on forward-looking information. The Company undertakes no obligation to reissue or update forward looking information as a result of new information or events after the date of this MD&A except as may be required by law. All forward-looking information disclosed in this document is qualified by this cautionary statement.