## VANADIUMCORP RESOURCE INC.

# **Management's Discussion and Analysis**

# For The Year Ended October 31, 2023

This Management's Discussion and Analysis ("MD&A"), prepared as of February 28, 2024, reviews and summarizes the activities of VanadiumCorp Resource Inc. ("VanadiumCorp" or the "Company") and compares the financial results for the year ended October 31, 2023, with those of the year ended October 31, 2022. This information is intended to supplement the audited financial statements for the year ended October 31, 2023, and the related notes thereto, which have been prepared by management in accordance with IFRS Accounting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). All dollar amounts included in this MD&A are stated in Canadian dollars unless otherwise indicated.

## FORWARD-LOOKING INFORMATION

This MD&A contains certain forward-looking statements and information relating to VanadiumCorp and its operations that are based on the beliefs of its management as well as assumptions made by and information currently available to the Company. When used in this document, the words "anticipate," "believe," "budget," "estimate," "expect," "intends," "plans," "potential," and similar expressions, as they relate to the Company or its management and operations, are intended to identify forward-looking statements.

These forward-looking statements or information relate to, among other things, the Company's future financial and operational performance; the sufficiency of the Company's current working capital, anticipated cash flow or its ability to raise necessary funds; the anticipated amount and timing of work programs; our expectations with respect to future exchange rates; the estimated cost of and availability of funding necessary for sustaining capital; forecast capital and non-operating spending; and the Company's plans and expectations for its property, exploration and community relations operations.

These forward-looking statements and information reflect the Company's current beliefs as well as assumptions made by, and information currently available to, the Company and are necessarily based upon some assumptions that, while considered reasonable by the Company, are inherently subject to significant operational, business, economic, competitive, political, regulatory, and social uncertainties and contingencies. These assumptions include cost estimates for exploration programs; cost of drilling programs; prices for base and precious metals remaining as estimated; currency exchange rates remaining as estimated; capital estimates; our expectation that work towards the establishment of mineral resource estimates and the assumptions upon which they are based will produce such estimates; prices for energy inputs, labour, materials, supplies and services (including transportation); no labour-related disruptions at our operations; no unplanned delays or interruptions in scheduled work; all necessary permits, licenses and regulatory approvals for our operations being received in a timely manner and can be maintained; and our ability to comply with environmental, health and safety laws, particularly given the potential for modifications and expansion of such laws. The foregoing list of assumptions is not exhaustive.

Forward-looking statements and information involve known and unknown risks, uncertainties, assumptions, and other factors which may cause the actual results, performance, or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Although the Company has attempted to identify important factors that could cause actual results or events to differ materially from those expressed or implied in the forward-looking statements (see "Risks and Uncertainties" in this MD&A), there may be other factors which could cause results not to be as anticipated, estimated, described, or intended. Investors are cautioned against attributing undue certainty or reliance on forward-looking statements or information.

Forward-looking statements and information contained herein are made as of the date of this MD&A. The Company does not intend and disclaims any obligation to update or revise forward-looking statements or information, whether as a result of new information, future events or to reflect changes in assumptions or circumstances or any other events affecting such statements or information, other than as required by applicable law.

#### **QUALIFIED PERSON**

Mr. Paul McGuigan, P. Geo., of Cambria Geosciences Inc., a Qualified Person under NI 43-101 and a senior consulting geoscientist and Director of the Company, has reviewed and approved the technical disclosure in this MD&A.

## THE COMPANY

VanadiumCorp was incorporated under the *Business Corporations Act* (British Columbia) as Homestead Resources Inc. on October 23, 1980. The Company and its subsidiaries are engaged in the acquisition, exploration, and development of mineral properties in Canada, with a primary focus on the exploration of the Lac Doré and Iron-T Properties in Québec that are mostly prospective for vanadium, titanium, and iron.

The Company is also researching novel hydrometallurgical processes for recovering vanadium, iron, and titanium products from various feedstocks (principally titanomagnetite) and industrial waste streams.

The Company's registered office is Suite 2110 – 650 West Georgia Street, Vancouver, British Columbia, V6B 4N8. The Company is a publicly-traded junior resource company on the TSX Venture Exchange, where its trading symbol is "VRB," The Company's trading symbol on the Frankfurt Stock Exchange is "NWN.F" and "VRBFF" on the United States OTC Markets.

On March 11, 2022, the Board of Directors removed Mr. Adriaan Bakker as CEO of the Company, and Mr. Paul McGuigan, P. Geo., was appointed the CEO.

Effective April 18, 2022, the Company consolidated its issued and outstanding common shares on a 10 to 1 basis. All references to common shares, warrants and stock options before this date in this report were adjusted to reflect the change.

In September 2022, the Company closed the first tranche of a non-brokered private placement consisting of flow-through and non-flow-through units for a gross aggregate total of \$1,315,200.

In November 2022, the Company closed the second tranche of a non-brokered private placement consisting of flow-through and non-flow-through units for a gross aggregate total of \$572,850.

In May 2023, the Company closed a non-brokered private placement consisting of non-flow-through units for gross proceeds of \$1,632,940.

In November and December of 2023, the Company closed two tranches of a non-brokered private placing consisting of flow-through and non-flow-through units for gross proceeds of \$1,584,900.

The Company is in the expanding energy storage industry. We support the critical-metals supply chain of a new generation of long-duration Vanadium Flow Batteries (VFBs) targeting the decarbonization of electrical grids:

- Industrial: The Company's Manufacturing Plant No. 1 in Val-des-Sources, Québec, is planned to come onstream in Q1 2024, producing high-purity vanadium electrolyte for VFB OEMs; after that, we scope a significant capacity increase for Plant No. 2.
- **Mining:** The Company's strategic mineral deposit of vanadium-titanium-iron at Lac Doré, Chibougamau, Québec, promises a stable supply of vanadium for electrolyte production for decades, contingent on a Positive Feasibility Study and successful permitting and development.
- Strategy: The Company seeks to enter downstream electrolyte manufacturing now, during the lift-off phase of VFB deployment worldwide, followed, success contingent, by our mine production when we have established a vanadium electrolyte market share. By commencing the production of electrolytes now, we demonstrate the Company's commitment to value-added critical metal processing in Québec.

#### **VANADIUM ELECTROLYTE MANUFACTURING**

The Company's Lac Doré and Iron-T properties are explored for their vanadium, titanium and iron mineral resources. Titanium and iron are traded on commodity exchanges. However, vanadium is not traded on any commodity exchanges, therefore, each producer must negotiate volumes and prices with buyers. Demand for vanadium as a battery metal is growing, and the Company scopes a significant advantage in integrating its metal production with value-added manufacturing of electrolytes for batteries.

A vanadium redox flow battery (VFB) is an electrochemical energy storage device that converts chemical energy into electrical energy. A VFB differs from conventional rechargeable batteries in that the energy storage occurs in a liquid media, and the charging and discharging processes can occur within a single cell. The VFB is a type of flow battery that uses vanadium ions as the charge carriers and has two separate tanks in which one tank contains the positive vanadium electrolyte. The second tank contains the negative vanadium electrolyte.

The Company seeks to demonstrate viable, high-purity manufacturing of vanadium electrolytes in a facility located in Québec. Successful demonstration of electrolyte manufacturing will allow the Company to create a high-purity process stream extending from the mineral in the ground to an integrated metallurgical and electrolyte manufacturing operation.

## Plant No. 1 - Val Des Source, Quebec.

The Company has taken possession of its site at the Carrefour d'Innovation sur les Matériaux de la MRC des Sources (CIMMS) facility in Val-des-Sources, Québec, to establish the first facility for manufacturing vanadium electrolytes (Plant No. 1). Engineering designs are complete. C-Tech Innovations Ltd. in the UK manufactured the core electrolyzer equipment and delivered it to CIMMS in mid-February 2024. Other major process equipment was procured locally. Construction of Plant No. 1 is underway, and process testing is expected to commence in mid-March 2024. The Company has contracted for the initial feedstock supplies for the manufacturing process and expects production to begin near the end of Q1 2024.

The Company is constructing electrolyte plant No. 1 in the Centre of Innovation of Materials (CIMMS) in Val des Source, Quebec. The operation of Plant No. 1 is fully under the control of the Company. CIMMS will supply certain needed operating personnel, heating and utilities for five years. In March 2024, the Company anticipates its support and facilities utilization at CIMMS will be finalized, and production will commence. The design capacity of Plant No. 1 is 360,000 litres of electrolytes per year, sufficient to provision up to 6.8 MWh of VFB storage per year.

PRIMA Quebec, a branch of the Quebec Provincial Government supporting the innovations of the advanced materials sector has awarded the Company a \$500,000 grant towards the Company's development of its electrolyte production operation. As of October 31, 2023, \$50,000 was received, and a further \$115,562 was received in December 2023.

# Plant No. 2 - Engineering Scoping Complete.

The Company estimated the capital and operating costs of a modular electrolyte plant design at a scoping level. Each module would have a capacity of 4.0 million litres/year, each providing about 76 MWh of VFB storage per year. The engineering scoping will be used in planning and negotiating for Plant No. 2 in Quebec. Contingent on sales to Canadian and international battery manufacturers, the Company's electrolyte production can expand incrementally according to market needs.

Conceptually, the Company can position one or two of these modules proximal to Canada, USA, and EU markets as the market for VFBs expands.

# **MINERAL PROPERTIES**

## Iron-T Property, Québec

**Location and Mineral Tenures:** The Iron-T Property is located in the Nord-du-Québec administrative region in the Province of Québec, approximately 15 km east of Matagami and 780 km northwest of Montréal. The Property straddles the townships of Isle-Dieu, Lozeau, Galinée and Comporté on NTS map sheets 32F11 (Rivière Opaoca), 32F12 (Ile Bancroft), 32F13 (Matagami) and 32F14 (Lac Olga).

All mineral titles are held 100% by the Company. The Property currently consists of one block of 86 claims staked by electronic map designation ("map-designated cells"), for an aggregate area of 4,789 hectares. The vendors will receive a 3% net smelter return ("NSR") royalty of which the Company may purchase at its discretion, 1½% of the net smelter

return royalty for \$500,000. The Company also retains a first right of refusal on the balance of the net smelter return royalty.

**History:** The Company has performed minimal work on the Iron-T Property since 2014. Several mining companies have conducted exploration work since 1958 on or near the Iron-T Property. The main interest was on base metals mineralization following initial discoveries in the Matagami mining camp. VanadiumCorp (named Apella Resources Inc. at the time) first worked on the Iron-T Property in 2007. The Company reviewed the historical diamond drilling completed on the Iron-T Property from existing historical logs, sections, and maps. Juna Mining & Exploration Ltd, SDBJ and Noranda generated the most significant drilling results in regard to oxide mineralization. Maxime Dupéré, P.Geo. of SGS Geostat validated that historical drilling information.

Starting in 2009, VanadiumCorp completed a first and second drill campaign totalling 27 diamond drill holes and 2 trenches totalling 3,470 meters. This drilling to May 13, 2010 was utilized in a maiden mineral resource estimation (the "2010 MRE") issued by Maxime Dupéré, P.Geo. of SGS Geostat, titled, "Technical Report Vanadium-Titanium-Iron Resource Estimation of the Iron-T Property Matagami Area, Québec, Canada". The report presented a mineral resource measuring 11.63 Mt bearing 37.88%  $Fe_2O_3$ , 6.33%  $TiO_2$  and 0.40%  $V_2O_5$  in the inferred category using a cutoff grade of 0.48%  $V_2O_5$ . This historical estimate is not considered a current estimate by the Company.

The 2010 MRE recommended continuing drilling and provided a budget estimate of \$2,623,500. The SGS budget includes 11,000 meters of diamond drilling, excluding numerous program support costs, which would be an additional cost.

By July 21, 2010, VanadiumCorp had completed a third drilling campaign totalling over 2,349 meters and sampling 3 trenches in the Lac Olga-Ouest mineralized zone.

In 2011, a mineral resource estimate (the "2011 MRE") was issued on behalf of the Company for the Lac Olga-Ouest mineralized occurrence (the "Genesis Zone"). A report by M. Dupere, P.Geo. of SGS Canada Inc. – Geostat, titled "Technical Report – Resource Update of the Iron-T Vanadium-Titanium-Iron Property, Matagami Area, Québec " dated May 19, 2011 stated that the zone contains 14.37 Mt bearing 39.04%  $Fe_2O_3$ , 6.55%  $TiO_2$  and 0.42%  $V_2O_5$  in the inferred category using a cut-off grade of 0.48%  $V_2O_5$ . This historical estimate is not considered a current estimate by the Company.

The 2011 MRE was prepared using the results of the 2009-2010 drilling program. However, the Company conducted further drilling in 2011, and these results were not included in the resource estimate.

Drilling programs from 2009 to 2011 revealed a further potential for mineralization on the Property.

- Specifically, down-dip and step-out drill holes intersected mineralization with similar grades to those from the 2011 resource area, thereby demonstrating that the Main Zone remains open at depth and along trend.
- Several holes drilled in the Lac Shallow-Ouest area in the western half of the Property intersected V-Ti-Fe mineralization with similar features to the Lac Olga-Ouest showing, specifically the grades, the geological setting, and the coincident broad geophysical signature.
- Consistent drill results, trench samples and aeromagnetic responses along the entire 22 km strike length indicate remarkably similar geology to the Lac Doré Property, including virtually no impurities and exceptional metallurgical recoveries.

Priority for exploration shifted to the Company's Lac Doré Property in 2013, and the Iron-T Property was put on maintenance only.

On October 30, 2019, the Company announced it had entered into an agreement (the "Agreement") with 11626191 Canada Inc., a private company (the "Private Company") whereby the Company can earn a 100% interest in the Property. On March 12, 2020, the Company announced in a press release that the transaction had closed.

Private Company had the right to:

• Earn a 75% interest on completion of \$5 million in exploration expenditures and \$1 million in cash and stock payments to VanadiumCorp before the 4th anniversary of the signing of the Agreement ("First Option");

- Earn an additional 10% interest on completion of a preliminary economic assessment ("Second Earn-in"); and
- Earn an additional 15% interest on completion of a positive feasibility study ("Third Earn-in").

After receipt of \$25,000 upon signing a Letter of Intent, the Private Company defaulted on its commitments and as of October 31, 2021, the Agreement has been terminated.

In May 2023, the Company conducted a small rock geochemical sampling program along the southern fringe of the Iron T claim block. G. Dupuis, P.Eng., the COO of the Company supervised and reported on the work.

**Geology and Mineralization:** The Iron-T Property is located within the Matagami volcanic complex in the northern part of the Abitibi Greenstone Belt, which represents one of several EW trending belts composed of a series of volcanic, sedimentary, and intrusive rocks within the Superior Province. Sharpe (1968) defined the stratigraphy of the Matagami area and identified two Archean volcanic packages, the Watson Lake Group marking the first of two phases of Archean volcanism characterized by the extrusion of bimodal Fe-rich, tholeiite volcanic rocks. The overlying Wabassee Group is characterized mainly by calc-alkaline basaltic to andesitic volcanics with some localized felsic units near its base.

The Watson Lake and Wabassee groups are intruded by the Bell River Complex, a large, 750 km2 layered synvolcanic intrusion dated 2724.6 ± 2.5 Ma (Mortensen, 1993). The Iron-T Property includes a few historical V-Ti-Fe mineralized occurrences and showings in the Bell River Complex (e.g., Lac Olga-Ouest and Lac Shallow-Ouest), as well as magmatic Cu-Ni mineralization (Lac Shallow-Est).

Geological setting and mineralization encountered on the Iron-T Vanadium-Titanium-Iron Property located in the Bell River Complex indicate many similarities with typical large magmatic Fe-Ti-V oxide deposits associated with a layered intrusive complex consisting mainly of layered and massive concentrations of titanomagnetite, titaniferous magnetite, magnetite, and ilmenite.

The vanadium mineralization is associated with titanomagnetite, magnetite and ilmenite layers within the layered ferrogabbro zone. Vanadium is mainly associated with titanomagnetite and magnetite mineral species.

Taner et al. (1998) conducted a mineralogical and petrological study of vanadium mineralization in the Bell River and Lake Doré Complex. This study indicates that vanadium mineralization is associated with magnetite and ilmenite layers within the layered ferrogabbro zone of the upper part of the Bell River Complex. The oxide-rich gabbro horizons varying in width from 10 to 100 m clearly appear on the airborne regional magnetic survey. The oxide-rich gabbro is a mineralized cumulate forming either homogeneous horizons with disseminated oxide mineral contents ranging from 20 to 60% or massive homogeneous layers with oxide mineral contents varying from 60 to 90%. Massive oxide mineralized bands are interlayered with poorly mineralized gabbro forming pluri-centimetric to decimetric scale interlayers. The mineralized layering of the gabbro dips north from 75° to 85°.

## Lac Doré Property, Québec

**Location and Mineral Tenures:** The Company holds 100% ownership in the Lac Doré Vanadium, Iron and Titanium Property ("Lac Doré Property"). The Lac Doré Property is located approximately 27 km east-southeast from the City of Chibougamau, in Eeyou Istchee James Bay Territory, Nord-du-Québec administrative region, Province of Québec, Canada. The center of the Property lies at approximately Latitude 49°50'N, Longitude 74°0'W. The Property comprises two discontinuous groups of claims that straddle the border between National Topographic System (NTS) map sheets 32G-16 and 32H-13:

- Lac Doré Main, holding mineral tenures over the Lac Doré deposit, comprises 23 claims of 648.8 hectare area.
- Lac Doré North to the north, straddling strike extensions of the Lac Doré deposit, comprises 15 claims of 701.9 hectare area.
- Lac Doré Extension abuts Lac Doré North and is mostly west of the Main/North mineralized horizon. It comprises 86 claims of 4,789.0 hectare area. The Company recently abandoned 2,116.8 hectares of claims in the northwestern extremity because they are not mineralized.

**History:** The Lac Doré magnetite deposit was discovered in 1948 through an aeromagnetic survey and has since been the subject of exploration by several companies with work carried out, including mapping, channel sampling, drilling, metallurgical test work, resource estimates, and feasibility studies. A large amount of historical data is available, but historical data considered most relevant are:

- The results of an extensive drilling program carried out by SOQUEM Inc. (SOQUEM), beginning in 1979.
- A 1997 stripping and sampling program by McKenzie Bay Resources Ltd (McKenzie Bay), including sampling and assaying of 1734 diamond-cut samples along a series of northwest-southeast lines.
- Seven drillholes completed by McKenzie Bay on the ground now held by the Company (i.e. within the current claim holdings).
- Four drillholes were completed by the Company (recorded as PacificOre Mining in the assessment filing registry) in 2013. Although conducted by the Company, they are considered historical as they were not drilled as part of the most recent program.
- Other than drilling, the Company carried out several ground magnetic surveys between 2009 and 2013.

Exploration and drilling in 2019 and 2020 were managed by InnovExplo Consultants, who also provided the consulting geologists who carried out the project's logging, sampling, and database management.

The Company commissioned an airborne "laser imaging, detection, and ranging" (LiDAR) survey in 2020, and a detailed digital terrain model (DTM) was prepared. Using channel sampling, several historical trenches were partially resampled for verification purposes in 2019.

During 2019 and 2020, VanadiumCorp drilled 37 new diamond drill holes (9,601.8m) and resampled old drill core and surface channel samples.

Drilling at the Lac Doré Project was carried out in September and October 2019 by Miikan Drilling Ltd of Chibougamau. NQ diameter diamond drill core was delivered to the Company's core facility in Chibougamau at the end of each shift. The drilling program and drilling contractors were managed by InnovExplo Consultants, who also provided consulting geologists who carried out the logging, sampling, and database management. An independent surveyor surveyed drill collars. Downhole azimuth and dip measurements were taken every run using a gyro-based Reflex instrument.

Core was split using a diamond saw and sampled predominantly 1.5 m intervals. Samples were shipped to SGS Canada Inc.'s facilities in Val d'Or and Québec City, Québec, for preparation, and were analyzed using x-ray fluorescence (XRF) spectroscopy at SGS Canada Inc.'s Lakefield facility for Whole Rock Analysis. The suite of elements analyzed includes SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, MgO, CaO, Na<sub>2</sub>O, K<sub>2</sub>O, TiO<sub>2</sub>, P<sub>2</sub>O<sub>5</sub>, MnO, Cr<sub>2</sub>O<sub>3</sub>, V<sub>2</sub>O<sub>5</sub>, and loss on ignition (LOI).

QAQC samples comprising 5% each of standards and blanks were included with each shipment. The certified reference materials (CRMs) used by VanadiumCorp were supplied by AMIS (A Division of Torre Analytical Services (Pty) Limited, South Africa) including AMIS0567, AMIS0501, and AMIS0347. Blanks include both certified blank materials and silica sand. Results for CRMs and banks indicate no bias or contamination in the samples. Internal laboratory duplicate analyses show an excellent correlation between original and repeat analyses, indicating no nugget effect.

Data Verification of historical results included resampling the 1997 trenches/channels originally sampled by McKenzie Bay (202 channel samples selected from 13 trenches), complete resampling of 2013 drill core (210 quarter-core samples), and twinning of several historical holes. Comparison of historical data with current data verifies and validates the use of the historical data. Longridge (2020) is of the opinion that the data from the Lac Doré Project (with particular reference to 2019 drilling) is acceptable for Mineral Resource estimation. Analytical results are considered to pose minimal risk to the overall confidence level of the MRE.

The Company retained CSA Global Consultants Canada Limited ("CSA"), with Dr. Luke Longridge, P. Geo. as the lead consultant. CSA produced a Technical Report titled "Lac Doré Project, Chibougamau, Québec, Canada, Dec. 10, 2020". The full technical report is available on the Company's website and SEDAR. The contained MRE is a historical estimate, being over three years old now. Notably, no drilling or sampling has been conducted since then, and the major assumptions contained in the report remain similar. Notwithstanding, the Company does not rely upon this CSA Global report and intends to commission an updated Technical Report and MRE in 2024.

**Geology and Mineralization:** The Lac Doré Property is located at the northeast end of the Abitibi greenstone belt, which is host to several Archaean mafic intrusions, including the Lac Doré Complex (LDC) near Chibougamau, which has been emplaced into volcano-sedimentary host rocks and has in turn been intruded by the felsic Chibougamau Pluton.

The LDC is a layered mafic complex comparable to other better-known complexes, such as the Bushveld Complex in South Africa. The Lac Doré Property area (located in the Layered Zone of the LDC) is underlain by anorthosite, gabbro, magnetitite, and pyroxenite in varying proportions.

Magnetite deposits in layered complexes such as at Lac Doré are formed through primary magmatic processes, and the magnetite-bearing units (as well as the intervening mafic rocks that may contain minor amounts of magnetite) are generally continuous along strike. This is the case at Lac Doré, where magmatic layering has formed several magnetite-rich or magnetite-poor lithology zones. Based on the detailed correlation of lithological units logged during the 2019-2020 exploration campaign, a magmatic stratigraphy comprising nine units has been defined (PO, P1, P2-LOW, P2-A, P2-PART, P2-B, P2-HW P3, P3-HW).

Mineralization is in the form of vanadiferous-titanomagnetite (VTM), which forms a significant proportion of the lithologies and in some cases may make up close to 100% of the lithological unit. Each of the mineralized zones varies in thickness across the 3 km of strike, as outlined, and the entire mineralized zone varies between 200 m and 300 m in thickness. The lithologies and overall magmatic stratigraphy dip at approximately 50--60° to the southeast and have been drill tested to depths of at least 220 m below the surface.

The concentration of vanadium and titanium within the magnetite varies with stratigraphic height. The magnetite from stratigraphically lower units (P1, P2-LOW) are more enriched in vanadium, and have relatively low titanium levels, whereas stratigraphically higher levels (P3) have lower vanadium and higher titanium in magnetite. Titanium and vanadium levels in magnetite remain relatively constant within units and along strike.

Metallurgical test work was limited to magnetic separation carried out using Davis Tube tests at SGS Canada Inc.'s facilities in Val-d'Or, Québec, to create magnetite concentrates which were then assayed to evaluate the iron, vanadium and titanium grades of the concentrates Samples were composited from pulp rejects previously prepared for assay. Samples were selected from all stratigraphic zones identified within the deposit. Magnetite content correlates with the iron content of the head grade, whereas vanadium contents vary by stratigraphic zone, with lower stratigraphic zones (P0, P1, P2-LOW) having elevated V2O5 values in the concentrate (approximately 1.4% to 1.6% V2O5), with the stratigraphically highest zone (P3 having grades of approximately 0.8% to 1.0% V2O5). The iron grade of the concentrates varies but on average remains constant at about 62%. Titanium grades of the concentrates show a linear inverse correlation with the vanadium grade of the concentrate.

The Company commissioned CSA Global to complete a mineral resource estimate ("MRE") and a Technical Report on the Lac Doré Project, with an effective date of October 29, 2020. This report is in accordance with disclosure and reporting requirements set forth in National Instrument 43-101 – Standards for Disclosure for Mineral Projects (NI 43-101), Companion Policy 43-101CP, and Form 43-101F1. This Technical Report discloses material changes to the Property, particularly, an MRE at the Lac Doré deposit. The Mineral Resource update has been prepared in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves (10 May 2014) as per NI 43-101 requirements. Only Mineral Resources are estimated – no Mineral Reserves are defined. See the table, following, for the summary of the mineral resources at the Lac Doré Property.

The CSA Global MRE is a historical estimate, being over three years old now. Notably, no drilling or sampling has been conducted since then, and the major assumptions contained in the report remain similar. Notwithstanding, the Company does not rely upon this CSA Global report and intends to commission an updated Technical Report and MRE in 2024.

Longridge (2020) concluded that VTM mineralization at the Lac Doré Project shows similarities to other magmatic VTM deposits associated with layered mafic intrusive complexes. In particular, the concentration of magnetite into several laterally continuous, tabular, stratiform zones and the change in the ratio of vanadium and titanium in the magnetite through the stratigraphy (from high-V2O5, low-TiO2 layers in the lower layers to low-V2O5, high-TiO2 in the upper layers) in typical of these deposit types.

Several stratigraphic zones of mineralization have been identified, all strike northeast, dip at 50–60° to the southeast, and cumulatively have a true thickness of between 200 m and 300 m. Longridge (2020) concluded the Mineral Resources have been estimated with sufficient confidence to allow for more advanced studies to take place at Lac Doré Main, where future work would focus on metallurgical testwork, mining studies, environmental testwork, and other work necessary for advanced studies, termed Phase 1 in his recommended budget.

The CSA Global MRE is a historical estimate, being over three years old now. Notably, no drilling or sampling has been conducted since then, and the major assumptions contained in the report remain similar. Notwithstanding, the Company does not rely upon this CSA Global report and intends to commission an updated Technical Report and MRE in 2024.

# Mineral Resource Estimate- Lac Doré Property, Québec – CSA Global, Longridge (2020) Table 17

Table 17: MRE at Lac Doré with an effective date of 27 October 2020 (\*recovery not applied to  $V_2O_5$  in concentrate)

	Classification	Mt	V <sub>2</sub> O <sub>5</sub> (%)	Fe (%)	TiO <sub>2</sub> (%)	Magnetite (%)	V <sub>2</sub> O <sub>5</sub> (kt)	Fe (Mt)	TiO <sub>2</sub> (Mt)	V <sub>2</sub> O <sub>5</sub> (Mlb)
	Measured	23.98	0.5	33.7	9.9	34.5	128	8.1	2.4	280
Head Grade	Indicated	190.96	0.4	26.3	6.7	23.4	837	50.2	12.8	1,850
(In situ)	Measured + Indicated	214.93	0.4	27.1	7.1	24.6	965	58.3	15.2	2,120
	Inferred	86.91	0.4	28.0	7.6	25.9	387	24.4	6.6	850
	Classification	Magnetite concentrate (Mt)	V <sub>2</sub> O <sub>5</sub> in concentrate (%)	Fe in concentrate (%)	TiO <sub>2</sub> in concentrate (%)		V <sub>2</sub> O <sub>5</sub> in concentrate (kt)	Fe in concentrate (Mt)	TiO <sub>2</sub> in concentrate (Mt)	V₂O₅ in concentrate* (MIb)
	Measured	8.27	1.2	62.0	9.4		100	5.1	0.8	220
Magnetite	Indicated	44.70	1.3	62.0	8.5		578	27.7	3.8	1,270
Concentrate	Measured + Indicated	52.82	1.3	62.0	8.7		678	32.8	4.6	1,490
	Inferred	22.52	1.2	62.0	9.2		277	14.0	2.1	610

#### Notes:

- Mineral Resources are estimated and reported in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves adopted 10 May 2014.
- Sum of individual amounts may not equal due to rounding.
- Geological and block models used data from 41 drillholes drilled by VanadiumCorp in 2013 and 2019, in addition to 44 drillholes and 33 surface channel samples completed previously and verified through twinning or resampling in 2019–2020.
- The drill database was validated prior to estimation, and drillholes were flagged with interpolation domains (P1, P2-LOW, P2-A, P2-PART, P2-B, P2-HW, P3), composited to 1.5 m intervals, and capped for anomalously high and low-grade values. QAQC checks included insertion of blanks, CRMs, pulp duplicates and umpire assays performed at a second laboratory.
- Head grades and densities were interpolated onto 10 m x 10 m x 10 m blocks using OK, owing to intercalations of high and low magnetite within broadly mineralized intervals, a high-grade or low-grade indicator was used, and separate interpolations carried out for high-grade or low-grade samples, with the proportion of high-grade mineralization within each block also interpolated using OK.
- All the estimates were validated visually using sections and 3D visualization, and using swath plots, comparison of averages in drillhole and blocks, and global change of support
- Magnetite contents and concentrate grades were calculated using regression formulae deduced from Davis Tube results.
- Resource classification was done using wireframes digitized using kriging variance as a reference and correspond to Measured Resources having drillholes spacing <40 m,</li>

- Indicated Resources having drillhole spacing between 40 m and 100 m, and Inferred Resources having a drillhole spacing >100 m.
- Mineral Resources are reported using a "net value" cut-off, calculated assuming an open pit mining operation and extraction of saleable vanadium pentoxide flake from the magnetite concentrate via the salt-roast process. The calculation assumes a V<sub>2</sub>O<sub>5</sub> price of US\$7/lb, 85% recovery of magnetite to the concentrate, 75% recovery of vanadium in the roast/leach extraction process, and costs of US\$3/t ROM (mining), US\$15/t concentrate (magnetite concentrate production), US\$55/t concentrate (roast/leach), US\$2/t ROM (G&A), and US\$1.5/t ROM (tailings disposal). A net value equal to zero was used for reporting.
- Mineral Resources are constrained by a pit shell optimized with the software SimSched using the above parameters and including a cost of US\$3/t for waste rock extraction and assuming maximum pit slope angles of 45°.
- Adrian Martinez, P.Geo (ON), OGQ Special Authorization, CSA Global Senior Resource Geologist, is the independent Qualified Person with respect to the MRE.
- Recoveries of V<sub>2</sub>O<sub>5</sub>, Fe<sub>2</sub>O<sub>3</sub> and TiO<sub>2</sub> to the magnetite concentrate are variable.
- Mineral Resources are constrained by claim boundaries.
- VanadiumCorp is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing or political factors that might materially affect these MREs.
- These Mineral Resources are not Mineral Reserves as they do not have demonstrated economic viability. The quantity and grade of reported Inferred Resources in this MRE are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated or Measured; however, it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued explorations.

Additional exploration work would focus on the Lac Doré North Property that is listed as Phase 2 below. That work would test for mineral resources on strike with the Lac Doré Main deposit. **All funds in the recommendation are in US dollars.** 

The Company commenced the recommended Phase 1 beginning in 2022, with a focus on the Lac Doré Main deposit. Fieldwork commenced in October 2022 with the collection and shipping of a metallurgical bulk sample weighing 1100 kg. Additional metallurgical samples will be collected as needed in 2024.

CSA Global, Longridge (2020) Recommended Work Program, Lac Doré Main and Lac Doré North

Recommended work		Details	Estimated cost (US\$)
Phase 1: Work	Environmental studies		1,000,000
required for prefeasibility or other	Metallurgical testwork including grind optimization, vanadium extraction testing	50 samples for grind optimization, five samples for vanadium extraction testwork	500,000
advanced studies at Lac Doré Main	Submission of core duplicates	400 samples	40,000
	Mining studies		150,000
	Infrastructure studies		100,000
	Detailed marketing studies		100,000
	Total estimated costs – Phase 1		1,890,000
Phase 2: Work required at Lac Doré	Additional drilling	Estimated 10 drillholes (2,000 m) for an Inferred MRE	200,000
North	Sampling and assaying	1,000 samples	100,000
	Mineral Resource estimation		50,000
	Total estimated costs – Phase 2		350,000
GRAND TOTAL			2,240,000

# **MINERAL INTERESTS**

The Company's exploration and evaluation assets are as follows:

	Iron-T	Lac Dore	Total
	\$	\$	\$
Balance, October 31, 2021	1,946,797	3,897,060	5,843,857
Exploration costs:			
Consulting	89,439	138,939	228,378
Field work	25,700	25,701	51,401
Government tax credit	(2,921)	(114,794)	(117,715)
Total during the year	112,218	49,846	162,064
Balance, October 31, 2022	2,059,015	3,946,906	6,005,921
Exploration costs:			
Bulk sampling	10,693	-	10,693
Camp costs	3,655	-	3,655
Claims/permits	47,322	29,149	76,471
Consulting	37,096	61,524	98,620
Engineering/reports	90,465	88,650	179,115
Equipment/other rentals	34,509	31,856	66,365
Field costs/exploration	23,414	56,400	79,814
Freight/transport	10,915	521	11,436
Geophysical & mapping	3,758	19,028	22,786
Supplies	5,391	26,787	32,178
Telecommunications	800	-	800
Travel & accommodation	14,569	<u>-</u>	14,569
Total during the year	282,587	313,915	596,502
Balance, October 31, 2023	2,341,602	4,260,821	6,602,423

# Contemplated Exploration Budget for 2024:

The Company accepts the recommendations of Longridge (2020), except that no economic studies will be performed until the Company's hydrometallurgical process is tested on a larger sample of the Lac Doré and Iron-T deposits. This will require additional sampling at Lac Doré Main and Lac Doré North. Additional drilling at Iron-T is planned and certain of those samples will be subject to metallurgical testing.

Additionally, the Company's program of research with its novel VEPT hydrometallurgical is progressing. In 2024, the additional test work will examine process steps that will yield high-purity TiO2 and vanadium products. Careful execution of the Lac Doré Main Phase 1 program, success contingent on a commercially proven VEPT process, will lead to feasibility stage studies.

The Stage 1 drill program recommended by Longridge (2020) did not commence due to fire hazards, community evacuations and forest closures in the summer of 2023. A limited program of surface geological mapping and location surveying was conducted in November and December of 2023. This data will be used to plan a 2024 exploration program, an updated geological/structural model and the contracting of an updated Technical Report and MRE. Meanwhile, the exploration recommendations remain valid. Currently, the Company is assessing the use of the November 2022 1200 kg. bulk sample to conduct certain of the planned metallurgical tasks with the highest priority.

#### OTHER OPERATIONS

# **Hydrometallurgical Process Research and Development**

The Company's main mineral deposit assets are dominated by titanomagnetite, magnetite and ilmenite mineralization. The dominant metal is iron. The Iron-T and Lac Doré deposits have been subject to metallurgical testing that indicates the concentrates will be almost entirely titanomagnetite.

Currently, the Company's commercial processing alternates for titanomagnetite include:

- Conventional steel production: However, the Company's concentrates will contain too much titanium (greater than 1% TiO<sub>2</sub>) to produce good quality iron concentrates for conventional steel production. Worldwide, titanomagnetite deposits are a minor part of iron ore production.
- A pyrometallurgical plant employs a pre-reduction of titanomagnetite concentrate to produce reduced ore, which is then passed into an electric arc furnace to produce pig iron. Subsequently, slags from steel making are roasted to recover vanadium. The process requires inputs of anthracite coal, coal, and natural gas.
- The conventional roast-leach process flow sheet comprises the following: three stages of crushing, one stage of grinding, two stages of magnetic separation, magnetic concentrate roasting in the presence of a sodium salt, vanadium leaching, ammonium meta-vanadate (AMV) precipitation, AMV filtration, AMV calcining, and fusing to V<sub>2</sub>O<sub>5</sub> flake as the final product. TiO<sub>2</sub> and Fe<sub>2</sub>O<sub>3</sub> are waste in this process, and project economics rests solely on the recovery of V<sub>2</sub>O<sub>5</sub>. The process requires inputs of anthracite coal, coal, and/or natural gas.

To reduce potential greenhouse gas emissions and gain value from all the iron, titanium, and vanadium contents of the Lac Doré concentrate, in 2016, the Company partnered with Dr. Francois Cardarelli of Electrochem Materials & Technologies Inc. ("Electrochem") in Canada which resulted in Electrochem inventing a novel hydrometallurgical process for recovering for vanadium, iron, and titanium products from various feedstocks and waste streams.

- By February 28, 2017, VanadiumCorp applied jointly with Electrochem for US Provisional Patent Applications: US 62/463,411 and US 62/582,060. and officializing VanadiumCorp's 50% ownership of VanadiumCorp-Electrochem Chemical Process Technology ("VEPT"). as it pertains to signed agreements and all future intellectual property.
- On August 30, 2018, VanadiumCorp entered the national entry phase for the VEPT when The World Intellectual Property Organization ("WIPO") (www.WIPO.int) officially published the Patent Cooperation Treaty "PCT" of the International Patent Application WO 2018/152628 (A1) entitled: "METALLURGICAL AND CHEMICAL PROCESSES FOR RECOVERING VANADIUM AND IRON VALUES FROM VANADIFEROUS TITANOMAGNETITE AND VANADIFEROUS FEEDSTOCKS".

- On February 14, 2019, VanadiumCorp and Electrochem filed national entries for VEPT in both Canada and Australia.
- On February 26, 2019, VanadiumCorp and Electrochem filed national entries for VEPT in South Africa, India and the United States.
- During the year ended October 31, 2019, the Company expanded its Intellectual Property portfolio into the European Union by filing national entry for VEPT.
- On November 24, 2020, the Company exercised its option to purchase 100% of the VEPT process rights.
- On December 2, 2020, the US Patent & Trademark Office (USPTO) issued a notice of allowance for the US Patent Application US 2020/0157696 A1 and entitled "Metallurgical and Chemical Process For Recovering Vanadium And Iron Values From Vanadiferous Titanomagnetite and Vanadiferous Feedstocks." The patent was subsequently issued on March 16, 2021 as USP 10,947,630 B2. The term of this patent will expire on February 21, 2038.
- A South African patent was issued on August 25, 2021 as ZA 2019/00743. The term of this patent will expire on February 21, 2038.

VanadiumCorp will request accelerated examination of its Canadian patent application under the PPH, by leveraging the claims granted in its corresponding US application.

The VEPT process recovers vanadium, iron, titanium, and silica values from vanadiferous feedstocks. More specifically, VEPT relates, but not exclusively, to a metallurgical process in which vanadium, iron, titanium, and silica values are recovered from vanadiferous feedstocks such as vanadiferous titanomagnetite, iron ores, vanadium slags and industrial wastes and by-products containing vanadium.

The VEPT process broadly comprises:

- Digesting the vanadiferous feedstocks into sulfuric acid, thereby producing a sulfation cake;
- Dissolving the sulfation cake and separating insoluble solids thereby producing a pregnant solution;
- Reducing the pregnant solution using, in some configurations, electrolyzers thereby producing a reduced pregnant solution;
- Crystallizing ferrous sulfate hydrates ("Copperas") from the reduced pregnant solution, producing an irondepleted reduced solution;
- The process further comprises removing titanium compounds from the iron-depleted reduced solution, thereby producing titanium hydrolysate and a vanadium-rich pregnant solution; and
- Concentrating vanadium and recovering vanadium products and/or a vanadium electrolyte.

Currently, the Company conducts VEPT research and development with a bench-scale pilot reactor situated at Electrochem Technologies & Materials Inc. in Boucherville, Québec, Canada. Commercial development will employ either existing sulfation plant facilities available in Europe or the Company's own pilot plant to be constructed with off-the-shelf reactors.

As VEPT is pre-commercial, the Company plans to further improve and optimize the process flowsheet including the design of a continuous sulfuric acid digestor and the recycling of sulphuric acid from ferrous sulphate (Copperas). Both improvements, if realized, have the potential to reduce the VEPT process capital expenditures and operating costs. These design improvements are sought as part of the upcoming Pilot Plant stage to facilitate economic studies of the Lac Doré deposit and the integration of VEPT in the metallurgical process. The Company has not yet raised the needed funds to initiate Pilot Plant studies or to initiate economic studies.

## **FINANCIAL**

The Company's consolidated financial statements are presented on a going-concern basis and assume that the Company will continue to realize on its assets and discharge its liabilities in the normal course of operations. The Company has no significant source of operating cash flow and no revenues from operations. None of the Company's mineral projects currently have identified reserves. The Company has limited financial resources. Substantial expenditures are required to be made by the Company to establish ore reserves.

Future revenue could be generated by licensing or commercializing VEPT or the sale or optioning of prospective projects to other junior resource companies or to major mining corporations or alternatively, by the internal development of one or more of the projects, should this prove feasible. In the meantime, the Company intends to continue to rely upon the issuance of securities to finance its future activities. Still, there can be no assurance that such financing will be available on a timely basis or terms acceptable to the Company.

Although the consolidated financial statements do not include any adjustments that may result from the inability to secure future financing, such a situation could have a material adverse effect on the Company's ability to operate and thus on the Company's financial position.

#### SELECTED ANNUAL INFORMATION

	Year Ended October 31, 2023	Year Ended October 31, 2022	Year Ended October 31, 2021
	\$	\$	\$
Net loss and comprehensive loss	(1,746,847)	(918,151)	(2,183,846)
Basic loss per share	(0.03)	(0.03)	(0.07)
Total assets	8,814,566	7,077,019	6,350,842
Current liabilities	969,275	1,292,512	744,655
Non-current liabilities	705,690	-	81,000
Working capital/(deficit)	175,002	(588,738)	(609,299)
Dividends	Nil	Nil	Nil

In 2021, net loss increased from 2020 as there was no recovery on flow-through liability, while at the same time a substantial share-based compensation was recorded. Total assets decreased slightly during the year as no significant exploration expenditures were incurred. A substantial working capital deficit existed due to the lack of financing and cash. The non-current liabilities consisted of loans due in 2023.

In 2022, net loss was substantially less than in 2021. Main cause for the decrease in net loss when compared to 2021 was due to the absence of share-based payments in 2022 while \$578,000 was recorded in 2021. During 2022, management curtailed activities across the board in an effort to conserve cash. Total assets increased in 2022 due to the closing of a financing and higher exploration expenditures, resulting in a larger exploration and evaluation asset in the statement of financial position. The non-current portion of the loans reclassified to current as they would become due in 12 months or less.

In 2023, net loss increased significantly from 2022 as several areas of expenses increased due to the setting up of the Company's electrolyte production operation. Marketing and financial consulting costs were also much higher to facilitate management's continuing efforts of raising capital to fund the Company's mineral and electrolyte projects. Total assets increased due to large amounts paid as deposits for the electrolyte equipment and the capitalization of sizeable exploration expenditures. The non-current liabilities consist of a new loan secured during the year and a deferred government grant to be received in the following fiscal period, which will be to offset against the cost of qualifying equipment purchased.

# **Results of Operations:**

# For the Three Months Ended October 31, 2023, and 2022

During the three months ended October 31, 2023, the Company recorded a net loss of \$550,207 as compared to a net loss of \$168,514 for the three months ended October 31, 2022. Losses have trended upwards as management is moving forward in developing its metallurgical extraction process, establishing its first electrolyte production facility, raising capital and hiring of a management team based in Quebec.

Noted major differences involved the following accounts:

	2023	2022	Change	
Expenses:	\$	\$	\$	
Amortization - patents	14,000	-	14,000	a.
Consulting	148,479	120,633	27,846	b.
Depreciation	18,751	1,701	17,050	C.
Electrolyte start-up costs	(3,785)	-	(3,785)	d.
Management fees	84,740	22,000	62,740	e.
Marketing and corporate development	57,663	2,447	55,216	f.
Office	42,017	(373)	42,390	g.
Professional fees	113,483	56,364	57,119	h.
Research and development	10,000	21,448	(11,448)	i.
Share-based compensation	42,125	-	42,125	j.
Travel and entertainment	38,021	(1,896)	39,917	k.
	(565,494)	(222,324)	(343,170)	
Other items:				
Recovery on flow-through liability	-	32,708	(32,708)	I.
All other accounts	15,287	21,102	(5,815)	_
Total	(550,207)	(168,514)	(381,693)	=

- a. Amortization of capitalize costs commenced in 2023.
- b. Consulting fees significantly higher in 2023 as the Company is moving forward with its projects by enlarging its management team and external consultant group.
- c. Due to sizable acquisitions of electrolyte equipment, depreciation charges increased in 2023.
- d. Costs incurred in the setting up of the electrolyte production operation were launched in 2023. Due to a government grant received and another portion accrued at year end resulted in a negative balance.
- e. Management fees increased as compared to the prior period as the management team has increased as the Company is moving forward with its projects.
- f. In 2023, efforts in promoting the Company's electrolyte production goals and financing activities to raise capital contributed to high marketing and corporate development costs.
- g. An adjustment of office expenses in 2022 created a credit balance but overall, office expense was higher in 2023 due mainly to the hiring of a full time assistant for the CEO.
- h. Professional fees higher due to increased costs relating to dealing with legal administrative and accounting matter.
- i. The entire 2022 R&D occurred during its last quarter causing a skewed comparison. Overall, R&D was higher in 2023 as the Company increased work with its patented vanadium extraction process.
- j. This is a non-cash expense based on stock options granted to insiders and consultants. The fair value of options granted using the Black-Scholes model will vary mainly on the number of options being granted. No stock options were granted in 2022.

- k. Procurement of equipment manufactured in Europe, setting up an electrolyte production facility in Quebec, interviewing potential French speaking management personnel and the marketing of financing within Quebec all contributed to more travelling and related costs in 2023.
- I. Recovery on flow-through liability is a non-cash item based on reversing a liability recorded due to the premium pricing of placing flow-through financing units. The extent of the reversal is dependent on the amount of the exploration expenditures.

# For the Years Ended October 31, 2023, and 2022

During the year ended October 31, 2023, the Company recorded a net loss of \$1,746,847 as compared to a net loss of \$918,151 for the year ended October 31, 2022. Expenses have increased significantly from 2022 as the Company has increased its activities in all aspects of the Company's operation by building a management team based in Quebec as well as moving forward with its mineral and electrolyte production projects.

Noted major differences involved the following accounts:

	2023	2022	Change	
Expenses:	\$	\$	\$	_
Amortization	14,000	-	14,000	a.
Consulting	604,575	465,433	139,142	b.
Depreciation	22,792	6,804	15,988	C.
Electrolyte start-up costs	44,979	-	44,979	d.
Management fees	207,740	22,000	185,740	e.
Marketing and corporate development	166,984	13,881	153,103	f.
Office	123,916	78,254	45,662	g.
Professional fees	191,927	184,252	7,675	h.
Research and development	55,423	21,448	33,975	i.
Share-based compensation	220,697	-	220,697	j.
Travel & entertainment	67,680	3,241	64,439	k.
	(1,720,713)	(795,313)	(925,400)	
Other item:				
Recovery on flow-through liability	73,159	32,708	40,451	I.
All other accounts	(99,293)	(155,546)	56,253	_
Total	(1,746,847)	(918,151)	(828,696)	_

- a. Amortization of capitalize costs commenced in 2023.
- b. Consulting fees significantly higher in 2023 as the Company is moving forward with its projects by enlarging its management team and external consultant group.
- c. Due to sizable acquisitions of electrolyte equipment, depreciation charges increased in 2023.
- d. Setting up of the Company's first electrolyte production facility commenced during fiscal 2023. Actual costs incurred have been offset against government grants received and approved.
- e. Management fees increased as compared to 2022 as the management team has increased as the Company is moving forward with its projects.
- f. In 2023, efforts in promoting the Company's electrolyte production goals and financing activities to raise capital contributed to high marketing and corporate development costs. Several contracts for the promotion of the Company's projects and business development plans were also entered into and amortized in 2023.
- g. Main cause for the increase in office expenses was the salary of a full time assistant to the CEO.
- h. Professional fees higher due to increased costs relating to dealing with legal administrative and accounting matter.
- i. Due to regulatory and financial issues, R&D was suspended for most of 2022.

- j. This is a non-cash expense based on stock options granted to insiders and consultants. The fair value of options granted using the Black-Scholes model will vary mainly on the number of options being granted. No stock options were granted in 2022.
- k. Procurement of equipment manufactured in Europe, establishing an electrolyte production facility in Quebec, interviewing potential French speaking management personnel and the marketing of financing within Quebec all contributed to more travelling and related costs in 2023.
- I. Recovery on flow-through liability is a non-cash item based on reversing a liability recorded due to the premium pricing of placing flow-through financing units. The extent of the reversal is dependent on the amount of the exploration expenditures. No flow-through premium liability on financial statements in 2022.

## SUMMARY OF SELECTED HIGHLIGHTS FOR THE LAST EIGHT QUARTERS

	Oct. 31, 2023	July 31, 2023	Apr. 30, 2023	Jan. 31, 2023
Description	\$	\$	\$	\$
Operations				
Office and administration expenses	(286,428)	(326,233)	(137,308)	(147,872)
Consulting	(148,479)	(154,454)	(145,548)	(156,000)
Professional fees	(113,483)	(28,038)	(23,841)	(26,565)
Travel and promotion	(38,021)	(16,109)	(878)	(12,672)
Research and development	(10,000)	(4,623)	(34,523)	(6,277)
Electrolyte start-up costs	3,786	(48,764)	-	-
Recovery of flow-through liability	-	38,070	20,573	14,516
Net loss	(550,207)	(540,245)	(321,525)	(334,870)
Basic and diluted loss per share	(0.01)	(0.01)	(0.00)	(0.01)

	Oct. 31, 2022	July 31, 2022	Apr. 30, 2022	Jan. 31, 2022
Description	\$	\$	\$	\$
Operations				
Office and administration expenses	(4,673)	(31,460)	(50,836)	(189,516)
Consulting	(120,633)	(83,500)	(80,000)	(181,300)
Professional fees	(56,364)	(19,940)	(86,869)	(21,079)
Travel and promotion	1,896	-	(214)	(4,923)
Research and development	(21,448)	-	-	-
Recovery of flow-through liability	32,708	-	-	-
Net loss	(168,514)	(134,900)	(217,919)	(396,818)
Basic and diluted loss per share	(0.01)	(0.00)	(0.01)	(0.01)

#### 2023:

In the current fiscal year, management entered several corporate development agreements to promote the Company's business projects and to prepare for a financing to raise working capital. This caused certain expenses such as office, administration, consulting and travel expenses to increase. R&D and electrolyte production start-up costs increased as the Company is moving ahead with its metallurgical mining extraction process and the establishment of a facility to produce of electrolytes.

#### 2022:

No extraordinary items occurred in each of the quarters aside from a recovery on flow-through liability. It is a non-cash item based on reversing a liability recorded due to the premium pricing of placing flow-through financing units. A flow-through financing was completed in the fourth quarter. Due to cash constraints, overhead and certain expenses continued to be curtailed.

#### LIQUIDITY AND SOLVENCY

The Company has no operating revenues and does not anticipate revenues of any kind until the Company is able to find, acquire, or place in production and operate a mining property or generate sales from its electrolyte manufacturing activities. Historically, the Company has raised funds through private placements, loans, shares for debt settlements, and the exercise of options and warrants.

The Company secured the following financing during fiscal 2022 and 2023:

## 2023:

In May, 2023, the Company issued 16,329,400 \$0.10 units ("Units") for gross proceeds of \$1,632,940.

Each Unit consisted of one common share of the Company and one share purchase warrant exercisable to purchase an additional common share of the Company for \$0.18 for 24 months from the date of issue.

• In November, 2022, The Company closed the second tranche of a non-brokered private placement for gross proceeds of \$572,850.

The Company issued 500,000 \$0.12 flow-through units ("FT Units") for gross proceeds of \$60,000 and 5,128,500 \$0.10 non-flow-through units ("Units") for gross proceeds of \$512,850.

Each FT Unit consists of one flow-through common share of the Company and one non-flow through common share purchase warrant (the "NFT Warrant") with each NFT Warrant exercisable to purchase an additional non-flow-through common share of the Company for \$0.18 for 24 months from the date of issue. The 500,000 FT Unit was subscribed by a director of the Company

• In September, 2023, the Company secured a \$775,000 loan secured against electrolyte and related equipment owned or expected to be owned by the Company.

#### 2022:

• In September, 2022, the Company closed the first tranche of a non-brokered private placement for gross proceeds of \$1,315,200.

The Company issued 4,793,333 \$0.12 flow-through units ("FT Units") for gross proceeds of \$575,200 and 7,400,000 \$0.10 non-flow-through units ("NFT Units") for gross proceeds of \$740,000.

Each FT Unit consists of one (1) flow-through common share of the Company and one (1) non-flow through common share purchase warrant (the "NFT Warrant") with each NFT Warrant exercisable to purchase an additional non-flow-through common share of the Company for \$0.18 for 24 months from the date of issue.

Each NFT Unit consists of one (1) common share of the Company and one (1) common share purchase warrant (the "Warrants") with each Warrant exercisable to purchase an additional common share of the Company for \$0.18 for 24 months from the date of issue.

- During the year, the Company secured net loans totaling \$33,856:
- During the year, two directors advanced funds totaling \$303,856 and subsequently during the year, \$270,000 was repaid.

As at October 31, 2023, the Company had a cash balance of \$798,682 (\$285,000 held in the lawyer's trust account until December, 2023) and working capital of \$60,002.

To conserve cash, certain management and ex-management personnel has refrained from receiving any cash pay in order to meet overhead expenses and certain committed expenditures. Management raised \$1,584,900 in financing in November and December of 2023. However, in order to fulfill plans to achieve the Company's exploration targets, electrolyte production and rolling out of a commercially viable redox battery, substantially more capital would be required. Raising funds is a constant goal and management is working on the next round of financing. Management believes the Company will achieve its financing goals; but, there are no assurances that management will be successful in securing the needed capital.

#### **RELATED PARTY TRANSACTIONS**

Transactions with related parties were at the amounts agreed to by the related parties. Related party transactions were as follows:

- a) During the year ended October 31, 2023, the Company paid/accrued salaries of \$Nil (2022 \$50,000). Salaries were previously paid to the former CEO and an officer of the Company. During fiscal 2023, the Company paid net payroll benefits of \$Nil (2022 \$3,670).
- b) During the year ended October 31, 2023, the Company incurred management fees of \$9,000 (2022 \$22,000) to the former CFO and current director of the Company. Management fees of \$198,740 (2022 \$Nil) were incurred in aggregate to a company associated with the current CFO and companies controlled by the CEO and the Chairman of the Board. An additional \$276,226 (2022 \$82,500) paid or accrued exploration expenditures to companies controlled by the CEO was capitalized under exploration and evaluation assets.
- c) During the year ended October 31, 2023, the Company incurred in aggregate consulting fees of \$274,000 (2022 \$113,440) to two directors, a former director, the former CEO and a company associated with the current CFO and CEO of GmbH. An additional \$145,000 (2022 \$145,878) consulting fees paid or accrued to a director and a company controlled by a director was capitalized under exploration and evaluation assets.
- d) Included in receivables at October 31, 2023 is \$1,359 (2022 \$1,359) owed from a director.
- e) Included in accounts payable and accrued liabilities at October 31, 2023 is \$438,577 (2022 \$567,383) owing to one director, a company controlled by a director, a company associated with the current CFO, an officer, four former directors, and a company controlled by a former director.
- f) Included in loans payable at October 31, 2023 is \$Nil (2022 \$121,106) owing to a director and two former directors. Interest payable on related party loans amount to \$20,500 (2022 \$20,683).
- g) During the year ended October 31, 2023, the Company incurred office rent of \$30,000 (2022 \$30,000) to a company controlled by the CEO of the Company.
- h) During the year ended October 31, 2023, the Company purchased certain lab and field equipment costing \$75,000 (2022 \$Nil) from a company associated with the CEO and a company controlled by the CEO.
- i) During the year ended October 31, 2023, \$157,146 (2022 \$Nil) share-based compensation for stock options granted to directors and officers were recorded by the Company.

In the normal course of business, the Company advances and/or reimburses directors and officers for expenses incurred on the Company's behalf. Amounts due to and from related parties are non-interest bearing, unsecured and due on demand.

## Key management personnel compensation

Key management includes the Company's executive directors and officers.

	Years Ended	
	October 31, 2023	October 31, 2022
Consulting fees, salaries & benefits, management fees	\$ 686,740	\$ 413,818
Share-based compensation	157,146	-
Rent	30,000	30,000
	\$ 873,886	\$ 443,818

#### SUBSEQUENT EVENTS

The following event occurred subsequent to October 31, 2023:

In November 2023, the Company issued 8,675,000 flow-through units ("FT Units") at a price of \$0.10 per FT Unit for gross proceeds of \$867,500 and 4,557,500 non-flow-through units ("Units") at a price of \$0.08 per Unit for gross proceeds of \$364,600.

- Each FT Unit consists of one flow-through common share of the Company and one non-flow through common share purchase warrant (the "NFT Warrant") with each NFT Warrant exercisable to purchase an additional non-flow-through common share of the Company at \$0.14 for 24 months from the date of issue.
- Each Unit consists of one common share of the Company and one share purchase warrant (the "Warrant") with each Warrant exercisable to purchase an additional common share of the Company at \$0.12 for 24 months from the date of issue.

A company controlled by two officers of the Company subscribed 1,000,000 Units for total proceeds of \$80,000.

• Cash commission of \$83,100 was paid and 70,000 broker Warrants and 660,000 broker NFT Warrants with the same terms of the Warrants and NFT Warrants, respectively, were issued.

In December 2023, the Company issued 2,148,000 flow-through units ("FT Units") at a price of \$0.10 per FT Unit for gross proceeds of \$214,800 and 1,725,000 non-flow-through units ("Units") at a price of \$0.08 per Unit for gross proceeds of \$138,000.

- Each FT Unit consists of one flow-through common share of the Company and one non-flow through common share purchase warrant (the "NFT Warrant") with each NFT Warrant exercisable to purchase an additional non-flow-through common share of the Company at \$0.14 for 24 months from the date of issue.
- Each Unit consists of one common share of the Company and one share purchase warrant (the "Warrant") with each Warrant exercisable to purchase an additional common share of the Company at \$0.12 for 24 months from the date of issue.

A director of the Company subscribed 648,000 FT Units for total proceeds of \$64,800.

 Cash commission of \$17,440 was paid and 48,000 broker Warrants and 120,000 broker NFT Warrants with the same terms of the Warrants and NFT Warrants respectively were issued.

# Standards, Amendments and Interpretations Adopted or Expected to be Adopted:

## Accounting pronouncement not yet adopted

Refer to audited October 31, 2023 consolidated financial statements.

# **Critical Accounting Estimates**

The Company's significant accounting policies are summarized in Note 3 of its consolidated financial statements for the period ended October 31, 2023. The preparation of the consolidated financial statements in accordance with IFRS requires management to select accounting policies and make estimates and judgments that may have a significant impact on the financial statements.

The Company regularly reviews its judgements and estimates; however, actual amounts could differ and, accordingly, materially affect the results of operations.

## **Off-Balance Sheet Arrangements**

The Company does not have any off-balance sheet arrangements.

# **Fully Diluted Share Capital**

Effective April 18, 2022, the Company consolidated its issued and outstanding common shares on a 10 to 1 basis. All references to common shares, warrants and stock options prior to this date in this report have been adjusted to reflect the change.

The following securities were outstanding as at February 28, 2024:

Securities	Number	Weighted- Average Exercised Price	Expiry Date
Common shares issued and			
outstanding	83,181,843	-	-
Share purchase warrants	52,752,333	\$0.18	Sept. 23, 2024 - May 11, 2025
Share purchase options	5,615,000	\$0.22	Dec. 9, 2025 - Jul. 6, 2028
Fully diluted share capital	141,549,176	-	-

# Share capital as at October 31, 2023:

	Share Capital		
	Number of	Amount	
	Shares	\$	
Balance - October 31, 2021	31,925,110	35,342,785	
Units issued for cash (net)	12,193,333	1,159,791	
Balance - October 31, 2022	44,118,443	36,502,576	
Units issued for cash (net)	21,957,900	1,918,984	
Balance - October 31, 2023	66,076,343	38,421,560	

# **Warrants Outstanding**

Details of share purchase warrants outstanding at October 31, 2023:

Number of Warrants	Exercise Price \$	Expiry Date	Remaining Life (Years)
	•	1 /	
12,546,933	0.18	September 23, 2024	0.90
5,628,500	0.18	November 21, 2024	1.06
16,573,400	0.18	May 11, 2025	1.53
34,748,833	0.18		1.23

# **Stock Options Outstanding**

Details of stock options outstanding at October 31, 2023:

Number of Options		Exercise		Remaining
Outstanding	Exercisable	Price \$	Expiry Date	Life (years)
765,000*	765,000	0.70	January 21, 2024	0.22
30,000	30,000	0.80	November 11, 2025	2.03
550,000	550,000	0.80	December 9, 2025	2.11
260,000	260,000	1.20	December 31, 2025	2.17
4,775,000	2,387,500	0.13	July 6, 2028	4.68
6,380,000	3,992,500	0.30		3.81

<sup>\*</sup> Subsequent to year-end, these options expired unexercised.

#### OTHER INFORMATION

#### **Risks and Uncertainties**

The discovery, development and acquisition of mineral properties are in many respects unpredictable events. Future metal prices, capital equity markets, the success of exploration programs and other Property transactions can have a significant impact on capital requirements.

The Company's principal activity is mineral project exploration and development. Companies in this industry are subject to many and varied kinds of risks, including but not limited to environmental, metal prices, political and economic.

Although the Company has taken steps to verify the title to the mineral claims in which it has an interest, in accordance with industry standards for the current stage of exploration of the same, these procedures do not guarantee the Company's title to these mineral claims. Mineral claim entitlement may be subject to unregistered prior agreements or transfers and title may be affected by undetected defects.

The Company has no significant source of operating cash flow and no significant revenues from operations. The Company's properties have no reserves. The Company has limited financial resources. Substantial expenditures are required to be made by the Company to establish ore reserves.

The Company's various projects are in the exploration stages only and are without known bodies of commercial mineralization, and have no ongoing mining operations. Mineral exploration involves a high degree of risk and not all projects which are explored are ultimately developed into producing mines. Exploration of such projects may not result in any discoveries of commercially economic bodies of mineralization. If the Company's efforts do not result in any discovery of commercial mineralization on any of its current projects, the Company could be forced to look for other exploration projects or cease operations.

The Company is subject to the laws and regulations relating to environmental matters in all jurisdictions in which it operates, including provisions relating to property reclamation, discharge of hazardous material and other matters. In certain circumstances, the Company may also be held liable should environmental problems be discovered that were caused by former owners and operators of the mineral claims and mineral claims in which it has previously had an interest. The Company attempts to conduct its mineral exploration activities in compliance with applicable environmental protection legislation. The Company is not aware of any existing environmental problems related to its current projects that may result in any kind of material liability to the Company.

## **Additional Disclosure**

Pursuant to section 5.3 of National Instrument 51-102 "Continuous Disclosure Obligations," issuers which are listed on the Exchange who do not have significant revenue from operations are required to provide additional financial information in their management discussion and analysis. That information is as follows:

The Company is a venture issuer that has not had significant revenue from operations in either of the last two financial years. The Company has capitalized all expenditures relating to the exploration of its various projects. Details of deferred expenditures for each project are shown in the notes to the accompanying financial statements. (see "Mineral Interests") Disclosure concerning the Company's general and administrative expenses is provided in the Company's annual and quarterly consolidated financial statements and the notes therein.

# Disclosure Controls and Procedures and Internal Control Over Financial Reporting

Under Canadian securities laws, because the Company is a venture issuer, it is not required to certify the design nor provide an evaluation of its disclosure controls and procedures ("DC&P") and internal control over financial reporting ("ICFR") and therefore, has not completed such an evaluation. Accordingly, this MD&A does not contain a discussion relating to the establishment and maintenance of DC&P and ICFR, as defined in National Instrument 52-109. In particular, management of the Company is not making any representations relating to the establishment and maintenance of:

 a) controls and other procedures designed to provide reasonable assurance that information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and b) a process to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes.

Accordingly, inherent limitations on the ability of the Company's management to design and implement on a cost-effective basis DC&P and ICFR for the Company may result in additional risks to the quality, reliability, transparency and timeliness of interim and annual filings and other reports provided under securities legislation.

# **FURTHER INFORMATION**

Further information can be obtained from VanadiumCorp's website at www.vanadiumcorp.com or at www.sedarplus.ca.