TITANIUM CORPORATION | CREATING VALUE FROM WASTE™

MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2021

Titanium Corporation Inc. ("Titanium" or the "Company") has prepared the following Management's Discussion and Analysis ("MD&A") to provide information to assist investors and others in understanding the financial results for the three and six months ended **June 30, 2021.** This MD&A should be read in conjunction with Titanium's audited financial statements as at and for the year ended December 31, 2020 and the interim condensed unaudited financial statements for the six months ended June 30, 2021(the "Financial Statements"). The referenced materials are available on Titanium's website at www.titaniumcorporation.com and can also be found, along with additional information about Titanium, on the System for Electronic Document Analysis and Retrieval ("SEDAR") at www.sedar.com. The Company is a development stage company whose common shares are listed on the TSX Venture Exchange under the symbol "TIC".

The Financial Statements have been prepared in accordance with Canadian generally accepted accounting principles as set out in the Handbook of the Chartered Professional Accountants of Canada ("CPA Handbook"), which incorporates International Financial Reporting Standards ("IFRS"). All amounts included in this MD&A are in Canadian dollars, unless otherwise specified. This MD&A is dated as of August 25, 2021.

Table of Contents

Forward-Looking Information

This MD&A contains forward-looking statements and information within the meaning of applicable Canadian securities laws (collectively, "forward-looking information") that reflect the current expectations of management about the future results, performance, achievements, prospects or opportunities for Titanium, including statements relating to the discussion of Titanium's research and development and commercialization plans, and the occurrence and timing of future steps with respect to the Project, under the heading "Titanium's Business"; the advantages of the Company's technology and the creation of a mineral sands industry; the timing expectations for completion of the engineering project activities; the scope of activities that will be undertaken; the timing expectation for making an investment decision and proceeding with detailed engineering and construction of facilities; the Company's ongoing engagement with stakeholders; the Company's continuing cash conservation program and expectations regarding the Company's current cash position and the ability to continue as a going concern; the Company's ongoing evaluation of financing opportunities, including grant and financing opportunities from applicable government programs and entering into funding agreements related thereto and the continued ability of the Company to do the same; the expected next steps for the Company; the advantages of the Company's technology in assisting with sustainability of the energy industry in Alberta and Canada; the effect of market conditions, as described in this MD&A under the headings "Quarterly Update", "Titanium's Business" and "Discussion of Risks", and the impact of new accounting standards on the Company's financial statements. This forward-looking information generally can be identified by use of forward-looking words such as "may", "will", "expect", "estimate", "anticipate", "believe", "project", "should" or "continue" or the negative thereof or similar variations.

Forward-looking information is presented in this MD&A for the purpose of assisting investors and others in understanding certain key elements of our financial results and business plan, as well as our objectives, strategic priorities and business outlook, and in obtaining a better understanding of our anticipated operating environment. Readers are cautioned that such forward-looking information may not be appropriate for other purposes. Forward-looking information, by its very nature, is subject to inherent risks and uncertainties and is based on many assumptions, both general and specific, which give rise to the possibility that actual results or events could differ materially from our expectations expressed in or implied by such forward-looking information and that our business outlook, objectives, plans and strategic priorities may not be achieved. Macro-economic conditions, including public health concerns (including the impact of the COVID-19 pandemic) and other geopolitical risks, the condition of the global economy and, specifically, the condition of the crude oil and natural gas industry, and the ongoing volatility in world markets may adversely impact oil sands producers' program plans, including proceeding with an investment decision in further project activities or any final investment decision with respect to commercialization, which could materially adversely impact the Company. In addition to other factors and assumptions which may be identified in this MD&A, assumptions have been made regarding, among other things: the condition of the global economy, including trade, public health (including the ongoing impact of COVID-19) and other geopolitical risks, including the fact that any estimates of project next steps, as well as the detailed engineering and construction period may be affected by the COVID-19 pandemic, the condition of the global economy and commodity prices, in particular crude oil prices; the stability of the economic and political environment in which the Company operates; the success of the validation and optimization engineering project activities, including the expected assessment of engineering reviews for next steps as part of the project activities, including the costs and economic and environmental benefits of the Project, the ability of the Company to enter into commercial contracts with oil sands producers and to achieve commercialization of the CVW™ technology, including the anticipated scope of such commercial contracts; the focus on optimization of the concentrator facility and design and engineering of a tailings thickener and associated facilities, including the expected timing of completion thereof and commencement of optimization of the minerals facility; the ability of the Company to produce and sell a high quality zircon concentrate and a high TiO2 ilmenite product; the ability of the Company to enter into commercial contracts with other strategic partners in relation to building and operating facilities, as required; the ability of the Company to continue with

its cost reduction initiatives and to be supported by its current cash position; the ability of the Company to retain qualified staff; the ability of the Company to obtain financing on acceptable terms, including available grant and financing opportunities from government programs and finalizing funding agreements for such government programs, as well as any additional funding requirements required to complete the detailed engineering phase; the translation of the results from the Company's research, pilot programs, front-end engineering design ("FEED") project activities, validation and optimization engineering project activities and studies into the results expected on a commercial scale; the belief that the Company's technology will provide important environmental and economic benefits that will assist with the recovery of a resilient and sustainable energy industry in Alberta and Canada; the anticipated timing for the completion of detailed engineering and construction once all validation and optimization engineering project activities are completed and a final decision to proceed with the project has been made; future oil and minerals prices and the impact of lower prices on activity levels and cost savings of oil sands producers; the impact of increasing competition; the ability to protect and maintain the Company's intellectual property; currency, exchange and interest rates; the regulatory framework regarding royalties, taxes and environmental matters in the jurisdictions in which the Company operates; and the ability of the Company to successfully market its CVW™ technology. The forward-looking information contained in this MD&A is based on the results of our research, pilot programs, FEED project activities, validation and optimization engineering project activities and related studies and commercialization efforts described in this MD&A under the headings "Titanium's Business", and "Quarterly Update". The Company has not commercially demonstrated its technologies and there can be no assurance that such research, pilot programs, FEED project activities, validation and optimization engineering project activities and related studies will prove to be accurate nor that such commercialization efforts will be successful, as actual results and future events could differ materially from those expected or estimated in such forward-looking information. As a result, we cannot guarantee that any forward-looking information will materialize, and we caution you against relying on any of this forward-looking information. Accordingly, readers should not place undue reliance on forward-looking information.

Additional information on these and other factors are disclosed elsewhere in this MD&A, including under the heading "Discussion of Risks", and in other reports filed with the securities regulatory authorities in Canada from time to time and available on SEDAR (sedar.com).

The forward-looking information contained in this MD&A describes our expectations as of August 25, 2021 and, accordingly, is subject to change after such date. Except as may be required by Canadian securities laws, we do not undertake any obligation to update or revise any forward-looking information contained in this MD&A, whether as a result of new information, future events or otherwise.

Titanium's Business

Company Overview

The Company is a clean technology innovator focused on providing solutions to the mining sector of Canada's oil sands industry. The Company has developed a suite of technologies called Creating Value from Waste™ ("CVW™") that recovers bitumen, solvents, valuable minerals and water from oil sands froth treatment tailings. The Company holds 21 patents for the CVW™ suite of technologies. The Company expects that the recovery of bitumen, associated solvents and water will result in important and timely environmental improvements for the oil sands industry and the recovery of the lost commodities will support economic growth, jobs and diversification.

The Company operates in the mining sector of Canada's oil sands industry. Remediation of tailings is an industry and government priority. This clean technology fills a gap in tailings management and delivers environmental benefits by producing a cleaner and lower volume of tailings for deposition and reducing methane (greenhouse gases or GHGs) and volatile organic compounds (VOCs).

The Company has invested in research and development ("R&D"), demonstration piloting, engineering and optimization of the CVW™" technologies, as a sustainable tailings management solution. Our work includes:

- **Initial R&D.** Successfully executing a two-year research program endorsed by the Alberta Government and supported by a $3.5 million Alberta Energy Innovation Fund ("AEIF") grant received in March 2008. The key achievements of the program were the development of technologies to remove bitumen from heavy minerals and recover bitumen, solvents and water from froth treatment tailings.
- **Design, Testing and Piloting.** Following the research program, starting in 2010, the Company completed successful integrated demonstration pilot programs over a four-year period in collaboration with a consortium comprised of oil sands operators and the Federal and Alberta governments. Minerals flowsheet design and testing programs were also conducted in conjunction with the demonstration piloting. The programs were supported by $6.5 million of Federal government grants from Sustainable Development Technology Canada ("SDTC") which funded approximately 25% of the programs, approximately $0.4 million in funding was received from the National Research Council's Industrial Research Assistance Program ("IRAP") and $1.1 million in Alberta Government funding was received from the Scientific Research and Experimental Development Program ("SR&ED").
- **Front-End Engineering Design ("FEED").** In July 2017, the Company commenced working with Canadian Natural Resources Limited ("Canadian Natural") on a front-end engineering design project (the "FEED Project") for the first commercial implementation of CVW™ technology at Canadian Natural's Horizon oil sands site (the "Project"). The $10 million FEED Project was supported by $5 million of grant funding from Emissions Reduction Alberta ("ERA"), along with the Company funding $1.4 million and Canadian Natural funding $3.5 million. The FEED Project was formally completed in August 2019.
- **Project Government Funding.** The Company has been awarded, subject to various requirements and reporting, $60 million in government funding for the Project from the Canadian federal and Alberta provincial governments: (i) Environment and Climate Change Canada conditionally committed to investing $40 million, through its Low Carbon Economy Fund ("LCEF"),; (ii) Natural Resources Canada ("NRCan") committed to investing $5 million, through its Clean Growth Program ("CGP"); and (iii) ERA, committed to investing $5 million, through its Partner Intake Program aimed at

improving environmental performance in Alberta's oil and gas sector; and (iv) SDTC committed to funding up to $10 million. The Company entered into contribution agreements with: (i) ERA regarding the investment of $5 million on September 28, 2020; (ii) NRCan regarding an investment of $1.96 million on January 19, 2021; and (iii) STDC regarding total Project funding up to a total of $10 million, on March 31, 2021. Funding from the LCEF program is subject to finalizing funding agreements, which will outline the conditions under which federal funding would be provided, including securing the remaining funding necessary to complete the Project, fulfilling all applicable requirements associated with the Project environmental assessments and Indigenous consultation requirements and finalizing the scope of the Project costs eligible for program funding.

Other funding opportunities such as are being reviewed for additional funding for the next stages of the Project.

- **Engineering Validation and Optimization.** During 2020 and 2021, the Company and Canadian Natural have focused resources on validating and optimizing the engineering of and capital cost estimates for the concentrator, thickener and associated facilities, minerals separation plant, minerals transload facility and various ancillary services, under Project Coordination Agreements (a "PCA"). The Project work has been an ongoing joint effort by Titanium and Canadian Natural with a cost sharing split for costs and government grants of 30% and 70% for each company, respectively. The PCAs set out the management structure, responsibilities, administration and certain other customary terms and conditions. These work programs are integral to the commercialization of the Project. Investment decisions for the next phases of the Project are expected to be undertaken on a year-by-year basis. In 2020, the companies worked together on engineering under a 2020 PCA, which governed the January 1, 2020 to December 31, 2020 engineering phase of the Project (the "2020 Program"). In 2020, the work focused on completed validation and optimization of the overall plant design and the updating of the capital and operating cost estimates for the concentrator plant, tailings thickener and associated utilities. In 2021, the Companies worked under a 2021 PCA, which governed the January 1, 2021 to April 30, 2021 engineering phase of the Project (the "2021 Program"). In 2021, the work focused on engineering redesign and updating of the capital and operating cost estimates for the mineral separation plant, associated utilities and the minerals product transload facility, plus further engineering reviews of the concentrator facility. The work completed under the 2021 Program incurred joint expenses of $3.4 million, which was supported by grants from NRCan, ERA and SDTC.

Industry Solution

The oil sands mining sector surface mines deposits in northern Alberta's Athabasca Oil Sands region to extract bitumen (heavy oil trapped in the sands) for local upgrading into synthetic crude oil or for dilution and pipelining to refineries. Heavy minerals that naturally occur in these oil sands deposits are concentrated in tailings during the secondary bitumen extraction step, referred to as 'froth treatment'. Oil sands producers currently use either a naphtha or paraffinic based solvent to process bitumen at the froth treatment stage. These solvent-based processes result in the loss of solvents, bitumen and heavy minerals in froth treatment tailings streams, which are currently deposited in tailings ponds. The combination of solvent and bitumen losses to tailings ponds results in substantial VOCs and GHG emissions from the ponds in the form of methane. Global Warming Potential ("GWP") is widely used as the measure of the relative climate impact of different GHGs. The 100–year GWP of methane is reported to be 28 to 36 times greater than CO2 and the 20-year GWP is reported as 84 to 87 times greater.

Tailings management remains one of the more difficult environmental challenges for the oil sands mining sector. The Company believes that its CVW™ technology can assist the industry in meeting certain of the regulatory requirements of the Alberta Energy Regulator's (the "AER") Directive 85 outlined below. In particular, the Company's technology has the potential to address a number of the aspects of sub-objective 2 by mitigating risks associated with treated froth fluid fine tailings.

Oil sands tailings are comprised of water, fine clays, residual bitumen, salts and soluble organic compounds. They also contain solvents which are added to the oil sands during the separation process (froth treatment). In 2016 and 2017, the AER issued the first version of a new Directive 85 and a revised version, respectively, Fluid Tailings Management for Oil Sands Mining Projects, which sets out requirements for managing and reclaiming fluid tailings including the following requirements: existing operators were required to submit fluid tailing management applications by November 1, 2016; operators must minimize fluid tailings accumulation by ensuring that fluid tailings are treated and reclaimed progressively during the life of the mine; new fluid tailings must be ready to reclaim by ten years after the end of mine life, while legacy fluid tailings must be ready to reclaim by the end of mine life; and operators are required to report annually on the performance of their fluid tailings management plans.

In order to evaluate whether active treated tailings deposits are on a trajectory to meet the high-level objective, there are two sub-objectives of Directive 85 that address different aspects of performance: Sub-objective 1: the deposit's physical properties are on a trajectory to support future stages of activity; Sub-objective 2: to minimize the effect the deposit has on the surrounding environment and ensure that it will not compromise the ability to reclaim to a locally common, diverse, and self-sustaining ecosystem. Sub-objective 2 focuses on circumstances

where the operator may propose management strategies, design features, or mitigation measures for risks associated with the specific nature of the deposit or its surrounding environment that could impact reclamation, for example, design features that control specific water movement such as drainage control systems, or management of risks associated with deposit characteristics such as treated froth fluid fine tailings, acidification, specific additives, or gas formation. If appropriate, an operator may propose and justify additional sub objectives.

Six large oil sands mining sites are currently in operation and produce in total approximately 1.6 million barrels per day of bitumen. These sites are currently operated by Canadian Natural (Horizon and Albian Sands sites), Suncor Energy Inc. (Base Plant and Fort Hills sites), Syncrude Canada and Imperial Oil Limited (Kearl). Expansion projects significantly increasing production at Horizon, Albian Sands and Kearl sites have been completed in recent years. The Fort Hills oil sands mining project was commissioned in 2019. The expansions and the new site have significantly increased Canada's oil sands mining bitumen production from approximately 900,000 barrels per day in 2010 to 1.6 million barrels per day in 2021. The growth of the oil sands mining industry means that increased volumes of bitumen, solvents and heavy minerals will be lost in froth treatment tailings until new technology is adopted to recover this lost value. Growth also means that related GHG and VOC emissions will continue to rise.

The Company's technology has been developed to meet the current and future needs of all the major oil sands operators related to froth treatment tailings recovery and remediation. In addition to the anticipated benefits of additional commodity recoveries, emissions reductions, and methane abatement, the Company's technology affords several other opportunities to reduce the environmental footprint of mining oil sands operations. Based on the results of the Company's research programs, tailings dewater more effectively in subsequent tailings management operations toward meeting Government of Alberta regulations which require reductions in the volume of tailings. The removal of bitumen and solvents could also enable the direct reuse of hot froth treatment tailings water in other mineable oil sands services, reducing energy costs, river water usage and GHGs related to reheating cold pond water used in the bitumen extraction process. Further, the process can recover and manage pyrite, to reduce future acid rock drainage from tailings.

Based on our research, pilot programs and studies, key economic drivers that support the adoption of Titanium's technology include: the commodity value of recovered bitumen and solvents currently lost to tailings ponds; the value of recovered zircon and titanium products and the potential for the recovery of rare earth minerals; the value of emissions reductions under current and future regulatory regimes; potential energy cost reductions due to potential hot process water reuse; potential cost reductions related to enhanced tailings remediation; and potential cost savings related to asset rock drainage.

We believe that there is a shared urgency by stakeholders to implement technology solutions that address a number of priority issues and concerns including: reducing environmental impacts, reducing operating costs and optimizing production; addressing the rising importance of Environmental, Social and Governance ("ESG") issues, including action to address climate change, particularly for an increasing number of institutional asset managers globally; and the commitment by the Alberta and Federal governments to reducing carbon emissions and increased monitoring of oil sands emissions. Reduction of environmental impacts, economic returns, incremental resource recovery, and development of a new minerals industry, we believe, all favour adoption of the Company's technology. Please refer to the material risks, uncertainties and other factors which may affect the Company which are described in more detail in this MD&A under the heading "Discussion of Risks".

The Company believes the market, political, social and regulatory forces, favouring the adoption of our technology, are intensifying, as industry and governments respond and position the country for a carbon-neutral goal by 2050. Widely accepted science-based studies describe the importance of moving to a carbon neutral society and the challenges in moving fast enough to achieve 2050 targets. As the global economy rebounds from the COVID-19 pandemic, emphasis is growing to do so in an environmentally sustainable way. In addition, oilsands companies have come under elevated pressure from the investment community to take action to reduce their environmental impacts. This momentum would favour the adoption of CVW™ and has been displayed in initiatives and reports of industry and government, in 2021.

- The April 2021 Federal Budget and the Government's recently announced targets to reduce Canada's GHG emissions to 40-45% below 2005 levels by 2030, reinforce the growing policy support for addressing climate change. The 2021 Federal Budget announced investments in innovation and new technologies including an additional $5 billion of funding over 7 years to increase funding to $8 billion for the Strategic Innovation Fund's Net Zero Accelerator. This fund aims to support projects that reduce GHG emissions including through the scale-up of clean technologies that accelerate industrial transformation and the development of process improvements which reduce the environmental footprint of current production, through the use of new technologies.
- The Net Zero by 2050 roadmap report, released on May 17, 2021, from the International Energy Association, emphasizes that the path forward to sustainable energy and decarbonization requires the deployment of all clean energy technologies.
- On June 9, 2021, Canada's largest oil sands producers announced an unprecedented alliance to achieve net zero greenhouse gas emissions. In the news release from Canadian Newswire, "Canadian Natural Resources, Cenovus Energy, Imperial, MEG Energy and Suncor Energy formally announced today the Oil Sands Pathways to Net Zero initiative." Oilsands members of the Pathways to Net Zero initiative believe the most effective way to address climate change is by developing and advancing new

technologies and that this unprecedented challenge can and will be solved by Canadian ingenuity, leadership and collaboration.

- On August 7, 2021, the Intergovernmental Panel on Climate Change ("IPCC"), the United Nations body assessing the science related to climate change, released a report *Climate Change 2021 – The Physical Science Basis*. The report emphasizes the impact of methane as a greenhouse gas that is contributing to climate change and calls for further action to reduce methane emissions.

There is wide acceptance that innovation and new technologies will be the principal source of solutions for reducing both environmental impacts and operating costs in Canada's oil sands industry. Through a disciplined collaborative approach, with the cooperation of industry and governments, the Company believes that it has successfully developed unique, practical technology solutions for oil sands froth treatment tailings that offer significant improvements to technologies currently used, and address environmental, operational and economic challenges.

Quarterly Update

The COVID-19 pandemic continued in the second quarter of 2021, with an increase in the incidence of the Delta variant, although restrictions began easing in most parts of Canada and the United States. At the start of 2021, new projects and capital spending were constrained by pandemic health concerns, public health restrictions and economic volatility. However, there are positive signs of economic recovery which could result in new projects and capital spending proceeding in Canada and particularly in the oilsands. These macro economic factors are beyond our control and we have had to adapt and manage through them. The full impacts are not known but could adversely affect the Project. See "Discussions of Risks".

During the second quarter of 2021, the Company and Canadian Natural's joint project team completed engineering reviews of the concentrator facility, engineering redesign of the minerals and transload facilities and Class 3 cost estimates. The results of this engineering validation and optimization work are being reviewed including Project costs, plus economic, environmental and operational benefits.

The Company has been providing updates to the Alberta and Federal government agencies who have awarded grant funding for the Project. The Company has secured government funding for the Project from ERA, NRCan and SDTC (see more details below under highlights). Funding from the government programs is subject to funding agreements, which outline the detailed conditions and eligible expenses, under each specific program. During the second quarter of 2021, $0.9 million in government funding contributions were received.

Highlights of the Second Quarter and First Six Months of 2021

Activities during the second quarter and the first six months of 2021, included completion of the engineering program under the 2021 PCA with Canadian Natural, the signing of government contribution funding agreements and collection of milestone funding payments related to 2020 and 2021 are summarized below:

- In January 2021, the Company and NRCan signed a Non-Repayable Contribution Agreement ("the NRCan Agreement"), under the Clean Growth Program, for $1.96 million of funding of eligible expenditures of an engineering work program for the period April 1, 2020 to March 31, 2021.
- In March 2021, the Company received the first milestone payment of $353,000 ($392,000 less 10% holdback), under the NRCan Agreement, for the engineering phase of the Project, with respect to the period April 1, 2020 to December 31, 2020.
- In March 2021, the Company received the first milestone payment of $640,000 ($800,000 less a 20% holdback), from ERA for the engineering phase of the Project. This ERA payment is the first under the $5 million ERA Contribution Agreement announced in September 2020.
- In April 2021, the Company announced the signing of a $10 million Project funding agreement with SDTC and received the first milestone advance payment of $733,738 ($815,264 less a 10% holdback).
- In April 2021, the Company and Canadian Natural signed a 2021 PCA, which governs the January 1, 2021 to April 30, 2021 engineering phase of the Project ("the 2021 Program"). The 2021 Program includes: completion of overall plant design validation and optimization; engineering redesign and updating for the minerals separation plant, associated utilities and product transload facility; and the updating of Class 3 engineering capital costs and operating expenses for all of the Project facilities. The 2021 PCA provides for cost and grant funding sharing by the Company and Canadian Natural in the ratio 30% and 70%, respectively.
- During the first four months of 2021, the Company and Canadian Natural completed engineering work under the 2021 PCA.
- In June 2021, the Company received the second milestone payment of $160,000 ($200,000 less a 20% holdback), under the ERA Agreement, for engineering costs of the Project, for the period from January 1, 2021 to March 31, 2021.
- In June 2021, the Company finalized an expenditure claim under the NRCan agreement and in August 2021 received funding of $1.34 million ($1.49 million less a 10% holdback) with respect to the engineering phase of the Project for the period from January 1, 2021 to March 31, 2021.
- In addition to advancing the Project with Canadian Natural and securing government funding for the Project, the Company continues to focus on conserving cash through reducing costs such as

compensation, travel and other discretionary expenses. 100% of directors' compensation and a portion of management compensation have been deferred under the Company's equity-based plans.

- In June 2021, the Company announced the cancellation of the annual general and special meeting of shareholders of Titanium, initially scheduled in June 2021 and subsequently rescheduled in August 2021. The Company has been granted an extension by the Court of Queens Bench of Alberta pursuant to Section 133(3) of the *Canada Business Corporations Act* permitting the Company to hold its annual general and special meeting at any time on or before December 30, 2021. Discussions between key shareholders of Titanium and the Board of Directors of the Company have not yet concluded. These discussions are focused on raising financing for the Company and the Board of Directors is evaluating financing options. Depending on the outcome of these discussions and the evaluation of financing options, certain directors of Titanium may remove their names for re-election and the Board of Directors may choose to nominate alternative directors for election. While the Board of Directors will endeavor to hold the shareholder meeting as soon as possible, and well in advance of the December 30 deadline, these discussions and the evaluation are ongoing and will take more time.

Next Steps

Engineering, procurement and construction ("EPC") of the Project facilities will be the next critical steps for the Project. Implementing Titanium's technology will require concentrator facilities to be built at the Horizon site which integrate with existing oil sands operations. In addition, minerals separation facilities will be constructed to process cleaned heavy minerals received from the concentrator into minerals products and/or concentrates for sale into export markets. The Company has advanced proposals and flexible business models, whereby the oil sands operator may build and operate certain of the facilities or elect to have the Company, together with partners, build and operate certain of the facilities.

The Company and Canadian Natural are continuing their review of Project Class 3 engineering cost estimates, Project economics, environmental and operational benefits. Once completed, next steps include finalizing the business model and associated commercial agreements, arranging financing and government funding, and making a decision to proceed with EPC of the facilities. Project next steps and timelines may be affected by a number of factors, including but not limited to, the COVID-19 pandemic, economic volatility, access to capital, Project economics and other factors, as described above and elsewhere in this MD&A. See "Discussion of Risks".

Financial Information & Analysis

Summary of Selected Quarterly Results

The following table summarizes the financial results of the Company for most recently completed quarterly periods prepared under IFRS (Canadian dollars in millions except per share data):

Net (Loss) Income and Per Share	**Q2 June 30, 2021**	Q1 Mar 31, 2021	Q4 Dec 31, 2020	Q3 Sep 30, 2020
Net (Loss)	**$ (0.72)**	$ (0.90)	$ (1.00)	$ (0.78)
Basic and Diluted (Loss) per Share	**$ (0.01)**	$ (0.01)	$ (0.01)	$ (0.01)

	Q2 June 30, 2020	Q1 Mar 31, 2020	Q4 Dec 31, 2019	Q3 Sep 30, 2019
Net (Loss) Income	$ (0.74)	$ (0.90)	$ (0.75)	$ 0.03
Basic and Diluted (Loss) Income per Share	$ (0.01)	$ (0.01)	$ (0.01)	$ 0.001

Titanium is focused on achieving long-term financial success by implementing its CVW™ technologies in commercial operations at oil sands sites. The Company is working with Canadian Natural on the Class 3 engineering phase of the Project, including engineering validation, optimization, economics and planning for the potential implementation at Canadian Natural's Horizon site. However, until these Project activities are completed to the satisfaction of the parties, commercial arrangements and investment decisions are made, and facilities constructed and operating, the Company expects to continue to incur losses. Currently, quarterly losses are comprised of R&D, engineering costs, and general and administrative ("G&A") expenditures. Changes in quarterly results are dependent on project activity and the timing of payments related to project cost recovery.

Overall Financial Results

The following explains the Company's financial results for the three and six-month periods ended June 30, 2021, compared to the three and six-month periods ended June 30, 2020:

- For the three and six months ended June 30, 2021, the Company reported a net loss of $0.7 million and $1.6 million, respectively, compared to the net loss for the three and six months ended June 30, 2020 of $0.7 million and $1.6 million, respectively. The net loss per share for the three and six months ended June 30, 2021, was $0.01 and $0.02, respectively, as compared to a similar net loss per share for the three and six months ended June 30, 2020 of $0.01 and $0.02, respectively. The net loss for the quarter ended and year to

date consisted of G&A and R&D expenses, outlined below. For a development stage company and given the timing of Project contributions, the net loss was in line with expectations.

- The Company's aggregate cash position was $1.6 million at June 30, 2021, a reduction from $2.7 million at December 31, 2020. The decrease in cash of $1.1 million is the result of funding the Company's Project activities versus the timing of receiving grant funding amounts, plus spending on G&A costs.

Research and Development Expenditures

($ thousands)	**Three months ended June 30**			**Six months ended June 30**		
	2021	2020	Increase (decrease)	**2021**	2020	Increase (decrease)
Project costs, rent and other	$ 91	$ 181	$(90)	$ 1,587	$ 331	$1,256
Compensation and benefits	184	114	70	349	289	60
Equity-based compensation	12	33	(21)	28	81	(53)
Deferred compensation	13	-	13	25	21	4
Total	**$ 300**	**$ 328**	**$(28)**	**$ 1,990**	**$ 722**	**$1,267**
Recovery of project costs	(248)	-	248	(1,397)	-	1,397
R&D net of recovery	**$ 52**	**$ 328**	**$(276)**	**$ 593**	**$ 722**	**$(129)**

R&D expenses for the three months ending June 30, 2021 of $0.05 million (2020 - $0.3 million) were lower by $0.3 million, as compared to the three months ended June 30, 2020. R&D expenses for the six months ending June 30, 2021 of $0.6 million (2020 - $0.7 million) were lower by $0.1 million, as compared to six months ended June 30, 2020.

R&D spending in the current quarter consisted primarily of compensation for technical staff, with some small on-going project costs such as minerals testing and evaluations. For the six months ended June 30, 2021, R&D spending including more project related activities and higher compensation and benefit costs than the comparative period ended June 30, 2020. Project costs were higher in 2021 compared to the same period in 2020, mainly due to higher engineering activities related to the redesign of the minerals and transload facilities, and optimization and costing activities of the concentrator facility, in the early part of 2021. Compensation and benefits increased due to additional payroll costs, vacation pay and bonus accrual, which in the previous year was not accrued due to overall cost control reductions during the pandemic. Total gross R&D costs for the six months ended June 30, 2021 of $2.0M were reduced by receipt of $1.4 million of net government and partner funding related to the Project.

Equity-based compensation was lower during the three and six months ended June 30, 2021, as no new incentive stock options have been issued since August 2019 and the fair value of options being amortized is lower for the six months ended June 30, 2021, as compared to June 30, 2020. In addition, certain variable compensation programs settled with restricted stock units ("RSU") that were suspended in 2020 continue to be suspended until such time as the Company has the capacity to issue RSU's.

General and Administrative Expenditures

($ thousands)	**Three months ended June 30**			**Six months ended June 30**		
	2021	2020	Increase (decrease)	**2021**	2020	Increase (decrease)
Compensation and benefits	$ 205	$ 115	$90	$ 356	$ 303	$53
Directors' fees – deferred compensation	103	101	2	177	183	(6)
Equity-based compensation	18	54	(36)	48	137	(89)
Consulting and professional fees	209	65	144	269	144	125
Deferred compensation	12	-	12	25	44	(19)
Investor relations and regulatory	81	48	33	92	65	27
Rent, insurance and office	40	34	6	73	65	8
Travel	-	-	-	-	7	(7)
	$ 668	**$ 417**	**$251**	**$ 1,040**	**$ 948**	**$92**

G&A expenses for the three months ending June 30, 2021 of $0.7 million (2020 - $0.4 million) were higher by $0.3 million, as compared to the three months ended June 30, 2020. G&A expenses for the six months ending June 30, 2021 of $1.0 million (2020 - $0.9 million) were slightly higher by $0.1 million, as compared to six months ended June 30, 2020. The overall changes are primarily related to higher expenses for compensation and benefits, consulting and professional costs, and investor relations and regulatory, which were partially offset by decreases in equity-based compensation and travel.

Compensation and benefits increased due to additional payroll costs associated with the transition of the retiring and incoming Chief Financial Officer and vacation pay, plus a bonus accrual, which in the previous year was not accrued due to overall cost control reductions during the pandemic. Consulting and professional fees increased largely due to legal fees associated with various shareholder matters, including the rescheduling of the annual general meeting and review of financing options. Similarly, investor relations and regulatory costs increased due to the rescheduling of the annual general meeting and additional press releases.

Deferred and equity-based compensation was lower during the three and six months ended June 30, 2021, as no new incentive stock options have been issued since August 2019 and the fair value of options being amortized is lower for the six months ended June 30, 2021, compared to June 30, 2020, due to the expiry of some options. In addition, certain variable compensation programs settled with restricted stock units ("RSU") that were suspended in 2020 continue to be suspended until such time as the Company has the capacity to issue RSU.

Liquidity and Capital Resources and Recoverability

The Company is a development stage enterprise as it has yet to earn any revenues from its planned operations. The Company is devoting substantially all its efforts toward commercializing its proprietary technology and has an accumulated deficit of $95 million as of June 30, 2021. These accumulated losses are largely due to investments in the research, development, piloting and engineering of its CVW™ technologies. The recoverability of amounts expended to date is dependent on the ability of the Company to complete commercialization arrangements at oil sands sites and achieve future profitable operations.

In addition to its ongoing working capital requirements, the Company must secure sufficient funding for commercialization of its technology. These circumstances lend significant doubt as to the ability of the Company to meet its obligations as they come due and, accordingly, the appropriateness of the use of accounting principles applicable to a going concern.

In response, the Company is reviewing all funding opportunities including available government assistance, or the issue of new equity or debt instruments. Until commercial operations are established, the Company will continue to incur losses and is dependent on raising funds through the issuance of shares, loans, government grants and/or attracting partners in order to undertake further development and commercialization of its technology. While the Company has been successful in obtaining the necessary financing to develop the business to this point, there are no assurances that the Company will be successful in these endeavors in the future. Although the Company had previously received government grants and currently has in place or is expected to sign funding agreements for additional government grants, there is no certainty that the grants will fund future expenses, that the grant agreements will be signed or that grant funding will be received. Although uncertainty exists, the financial statements have been prepared on a going concern basis.

The Company's ability to continue as a going concern is dependent upon its ability to fund its research, development, engineering and commercialization, manage its ongoing expenses, retain its patent rights and generate positive cash flows from operations. These financial statements do not reflect the adjustments to the carrying values of assets and liabilities and the reported expenses and balance sheet classifications that would be necessary if the company were unable to realize its assets and settle its liabilities as a going concern in the normal

course of operations. Such adjustments could be material. See "Discussion of Risks" in this MD&A and going concern disclosures in the Company's Financial Statements.

The following is a summary of the cash and cash flow for June 30, 2021.

- The Company had an aggregate of $1.6 million at June 30, 2021 of cash, as compared to $2.7 million at December 31, 2020. The decrease in cash is the result of funding the Company's Project activities, general and administrative and public company expenditures. The Company expects its current cash position is not adequate to cover expected ongoing operating expenses over the next 12-month period and further financing is required.
- Cash used in operating activities for the three and six months ended June 30, 2021 was $0.1 million and $1.1 million, respectively, compared to a similar use of cash of $0.6 million and $1.5 million, for three and six months ended June 30, 2020, respectively.
- During the six months ended June 30, 2021, the overall use of cash was partially offset by $1.4 million net government funding payments received from ERA, SDTC and NRCan related to Project engineering that occurred in 2020 and 2021. In the previous period, for the six months ended June 30, 2020, the overall cash position was supported by $4.1 million net proceeds from a private placement and receipt of the payments from ERA and Canadian Natural, related to the FEED Project engineering.

Financial Instruments and Financial Risk Factors

The Company has, for accounting purposes, designated its cash, cash equivalents, short term investments and goods and services tax receivable, as loans and receivables. Trade and other payables and accrued liabilities are classified for accounting purposes as other financial liabilities. The Company estimates that both the carrying and fair value amounts of the Company's financial instruments are approximately equivalent because of the short-term nature of the assets and liabilities. The Company manages the risks relating to the financial instruments by investing in short-term highly liquid certificates of investment issued by Schedule I Canadian chartered banks. This discussion on risks is not all-inclusive and other factors may currently, or in the future, affect the Company and should also be read in conjunction with the other risks described under the heading "Discussion of Risks" in this MD&A.

Liquidity risk

Liquidity risk is the risk that the Company will not have sufficient cash resources to meet its financial obligations as they come due. The Company's approach to managing liquidity risk is to ensure that adequate resources are available to meet its obligations as they come due. As at June 30, 2021, the Company had aggregate cash and

short-term investments of $1.6 million (December 31, 2020 - $2.4 million) to settle current liabilities of $1.9 million (December 31, 2020 - $1.4 million). About half of the current liabilities are deferred compensation to the Board and management and most of the Company's trade payables and accrued liabilities have contractual terms of 30 days or less, with the remainder, such as accruals, due within one year.

In future, the Company will need to raise additional funds to complete Project activities, and to reach commercialization arrangements for its participation in the Project. Potential sources, which may be available to the Company to fund its future cash requirements include, but are not limited to, new or additional government grants, loans, issuances of securities or some form of partnership or joint venture.

Financial risk

The Company's activities expose it to a variety of financial, credit, liquidity and market risks, including interest rate and foreign exchange rate risks.

Financial risk management is carried out by the Company's management team with guidance from the Audit Committee and the Board. The Board also provides guidance for enterprise risk management.

Credit risk

Credit risk is the risk of loss associated with a counterparty's inability to fulfill its payment obligations. The Company's credit risk is primarily attributable to cash and cash equivalents and short-term investments. Cash and cash equivalents and short-term investments are held with Schedule I Canadian Chartered banks which are regularly reviewed by management. Management believes that the credit risk with respect to financial instruments is minimal.

Market risk

Market risk is the risk of loss that may arise from changes in market factors such as interest rates and foreign exchange rates.

a) *Interest rate risk*

The Company's current policy is to invest excess cash in interest bearing cash accounts, bankers' acceptances and guaranteed investment certificates issued by Schedule I Canadian banks. The income statement includes interest income associated with the Company's financial instruments. The Company periodically monitors its investments and the creditworthiness of the banks it holds investments in.

b) *Foreign currency risk*

The Company's reporting and functional currency is the Canadian dollar and most purchases are transacted in Canadian dollars. Some research and development expenses are denominated in Australian dollars and, to a lesser extent, US dollars. The Company does not hold any significant balances in foreign currencies to give rise to exposure to foreign exchange risk. Any impact from fluctuations in foreign exchange rates would be minimal and therefore the Company does not hedge its foreign exchange risk.

Discussion of Risks

An investment in our common shares is risky. Investors should carefully consider the risk factors set out below and consider all other information contained herein and in our other public filings before making an investment decision. The risks and uncertainties described below and elsewhere in this MD&A are not the only ones the Company faces. Additional risks and uncertainties, including those that the Company is not currently aware of or that management of the Company currently deems immaterial, may also adversely affect the Company's economics, operating results, financial condition, prospects for commercialization and the profitability of commercial projects.

We may not be able to successfully execute our business plan.

The execution of our business plan poses many challenges, including those as further described in this discussion of risks, and is based on a number of assumptions. We may not be able to successfully execute our business plan. In addition, we cannot guarantee that we will be able to leverage our relationships with oil sands producers or that commodity prices will support the capital expenditures required by oil sands producers for the implementation and development of our CVW™ process. We may not be able to proceed past the engineering phase with oil sands producers to develop a commercial project. If we experience significant cost overruns on our programs, including the validation and optimization engineering Project activities currently ongoing and anticipated, or if our business plan is costlier than we anticipate, certain of currently anticipated Project activities may be delayed or eliminated, resulting in changes or delays to our commercialization plans, or we may be compelled to secure additional funding (which may or may not be available) to execute our business plan. Additionally, we are expecting to complete certain Project activities, to advance to the next phase of the Project, which may take additional time and resources. We cannot predict with certainty our future revenues or results from our operations. If the assumptions on which our revenue or expenditure forecasts are based change, the benefits of our business plan may change as well.

In recent months, there have been subsequent waves of the pandemic and the duration and the extent of the impact of these events is not known but could adversely affect the progress and timing of the Project. Concerns over the COVID-19 pandemic and the decrease in global demand for crude oil, global economic conditions, fluctuations in

interest rates and foreign exchange rates, stock market volatility, energy costs, geopolitical issues, OPEC+ actions, inflation, the availability and cost of credit, the volatility of major stock exchanges, the pace of economic growth in the People's Republic of China and trade disputes between the United States and the People's Republic of China have all contributed to increased economic uncertainty, and precipitated the reduction of oil sands producers' capital spending budgets, which could have a significant impact on the Company's ability to complete further engineering Project activities. In addition, continued hostilities in the Middle East and the occurrence or threat of terrorist attacks in the United States or other countries could adversely affect the economies of Canada, the United States and other countries. The unprecedented COVID-19 pandemic, in addition to continued concerns about global economic growth, continue to cause volatility in global economic conditions. If the economic climate in Canada, the United States or abroad remains volatile, worldwide demand for petroleum products could diminish, which would further impact the crude oil and bitumen industry, including the oil sands producers and in turn affect the ability of the Company to continue with engineering activities and commercialization of the Project. As a result, these activities may be delayed or eliminated, resulting in changes or delays to our commercialization plans and potentially higher costs and other negative impacts.

We expect to continue incurring losses and consuming cash and will likely need to raise additional capital, the availability of which cannot be assured.

We expect to incur continued losses until we can produce sufficient revenues to cover our costs. If we are unable to successfully implement our business plan, our cash requirements may increase, and we may find it difficult to raise additional funding and continue operations. We expect our cash reserves will be reduced due to future operating losses, and we cannot provide certainty as to how long our cash reserves will last or whether we will be able to access additional capital, when necessary, in order to carry on business.

Titanium expects to rely on funding from the Governments of Canada and Alberta to pay part of the project costs of Titanium's CVW™ clean technology, the availability of which cannot be assured.

Currently the Company funds various Project costs with government support. The various funding requirements and amounts are subject to change.

Environment and Climate Change Canada, through the LCEF, has conditionally committed to investing $40 million in the Company's CVW™ Horizon Project. To secure this funding commitment, we will have to negotiate the terms and conditions under which such funding will be provided and enter into a definitive agreement with government agencies within prescribed time periods. Changes in governments and delays or other difficulties in satisfying pre-conditions for the signing of such definitive agreements create uncertainty in securing these and other government funding commitments. We can offer no guarantee that we will be able to conclude such negotiations and enter into such definitive agreements on reasonable terms or at all.

Even if definitive agreements are entered into, the terms and conditions of such agreements may not be favorable to the Company or may otherwise be subject to conditions which the Company cannot satisfy. For instance, the governments' obligations to fund payment of eligible Project costs will be subject to the satisfaction of several conditions, including the successful completion of other government funding programs, Titanium's compliance with the other terms and conditions of the government funding agreements and within the time periods required, and Titanium securing, within certain prescribed time periods, the remaining funding necessary to complete the Project. Given the need to first secure satisfactory commercial arrangements with an oil sands producer to adopt and integrate our CVWTM process, Titanium may not be able to comply with the current government-imposed deadlines to secure, within certain prescribed time periods, the remaining funding necessary to complete the Project. As such, an extension of time to satisfy that condition may be required from the responsible government agencies in order to secure such funding commitments, the availability of which cannot be assured. Even if such an extension is granted, no assurance can be given that Titanium will be able to satisfy the other conditions necessary to receive payment of eligible Project costs.

If the government funding commitments are not available, the Company may be required to raise additional capital through the issuance of securities, loans, new or additional government grants and/or some form of partnership or joint venture to fund the costs that would have otherwise been paid for with government funding. No assurances can be given that the Company will be able to raise additional capital or funding on acceptable terms or at all.

We are dependent upon oil sands producers to adopt and integrate our CVW™ process into their oil sands operations.

Our success depends on the willingness and ability of oil sands producers to adopt and integrate our CVW™ process into their own oil sands operations. For oil sands producers to adopt and implement our CVW™ process, we will have to negotiate commercial terms for the implementation of these technologies. This will require the interest and cooperation of the oil sands producers. The cost and complexity of integrating our CVW™ process is uncertain and will vary depending on the site and the objectives of each oil sands producer. We can offer no guarantee we will be able to conclude such commercial negotiations on reasonable terms or at all. Additionally, if there are dramatic decreases in crude oil prices or other global events, oil sands producers may reduce, or continue to reduce, their capital programs and defer planned activities, which could result in delays in, or resistance to, adopting the Company's CVW™ technology.

Furthermore, any integration, design, construction, or operational problems encountered by oil sands producers associated with adopting and integrating our CVW™ process could adversely affect the market opportunity for our CVW™ process and our financial results.

As described elsewhere in this MD&A, the Company and Canadian Natural have completed the FEED Project, plus post-FEED Project engineering validation and optimization, for the Project. The successful completion of these activities does not provide any guarantee that Canadian Natural will proceed with the Engineering Procurement and Construction ("EPC") phase or the future commissioning of the Company's CVW™ technology. There are other Project activities required to be undertaken by the Company and Canadian Natural, prior to proceeding with the EPC phase, such as the ongoing evaluation of capital and operating estimates along with associated budget approvals; the filing of regulatory applications for the Project, along with Indigenous engagement and commercial structuring and financing related activities. These Project activities may take longer, be of a different scope and be costlier than currently expected.

Depending on the amount of the further engineering Project activities or length of time these activities may take to complete, the Company may be required to raise additional capital through the issuance of securities, loans, new or additional government grants and/or some form of partnership or joint venture to fund these costs. There can be no guarantee that the Company will be able to raise additional capital or funding on acceptable terms or at all. Each of these processes may take longer and be costlier than expected, may not be on terms favourable to the Company or may not materialize into binding agreements for a commercially scaled version of our CVW™ process at all. As such, there is still uncertainty and risk that our CVW™ process will not be adopted on a commercial scale.

While the Company and Canadian Natural have consciously demonstrated a strong focus on Project activities and continue to actively work towards commercialization of the Project, investment decisions in Project activities are expected to be undertaken on a year-by-year basis and a final investment decision with respect to commercialization of the Project is uncertain at this time. As a result, there is the potential for delay or revision to the Project activities, which will be affected by, amongst other factors, the current state of the global economy, global crude oil prices and current public health concerns, including those relating to the COVID-19 pandemic.

Crude oil and bitumen price fluctuations are beyond our control and may affect the ability and willingness of oil sands producers to evaluate our CVW™ process or enter into commercial projects with us.

Crude oil and bitumen price fluctuations are beyond our control and may have a material adverse effect on the willingness of oil sands producers to adopt and integrate our CVW™ process in existing or new oil sands projects and on the economics, operating results, financial condition and profitability of any commercial projects involving our CVW™ process.

The financial condition, operating results and future growth of oil sands producers are substantially dependent on prevailing and expected prices of oil and bitumen. Prices for oil are subject to large fluctuations in response to changes in supply and demand, geo-political uncertainty and a variety of additional factors, including access to markets and sufficient transportation capacity, all of which are beyond the control of oil sands producers.

Global crude oil prices may remain volatile for the near future because of market uncertainties over the supply and demand of these commodities due to the current state of the world economy, current public health concerns, including the COVID-19 pandemic, shale oil production in the United States, OPEC+ actions, political uncertainties, sanctions imposed on certain oil producing nations by other countries, conflicts in the Middle East and ongoing credit and liquidity concerns, among other factors.

Many crude oil and bitumen companies have reduced their capital programs and may continue to reduce those programs in 2021. Prolonged periods of low crude oil and bitumen prices as well as political and other economic uncertainty, could result in certain oil sands producers reducing, further reducing or eliminating their spending on new capital-intensive projects (as opposed to sustaining capital expenditures or existing projects) which could have a material adverse effect on the timing and/or willingness of oil sands producers to adopt and integrate our CVW™ process into their existing and future oil sands operations.

We could lose or fail to attract the key personnel necessary to run our business and execute on the Project.

Our success depends in large part on our ability to attract and retain key management, engineering, scientific and operating personnel. As we develop additional capabilities and expand the scope of our operations, we will require additional skilled personnel. Recruiting personnel for the oil sands and waste remediation industry is often highly competitive. Other companies have significant capital resources and other business activities as compared to the Company. We may not be able to continue to attract and retain qualified executive, managerial, technical and operational personnel needed for our business. Our failure to attract or retain qualified personnel could have a material adverse effect on our business.

Our potential customer base is concentrated, and we are subject to risks from those customers' internal research and development of competing tailings management strategies.

Based on the current stage of our CVW™ process, our potential customer base is limited to the mining sector of Canada's oil sands industry now consisting of Canadian Natural (Horizon and Albian Sands sites), Suncor Energy Inc. (Base Plant and Fort Hills sites), Syncrude Canada and Imperial Oil Limited (Kearl), each of whom may prefer other methods of dealing with froth treatment tailings that do not include our CVW™ process.

As our CVW™ process has the potential to replace existing methods of dealing with froth treatment tailings, competition for our process will come from current oil sands producers, from improvements to current methods of dealing with froth treatment tailings and from new alternative methods of dealing with froth treatment tailings.

Additionally, oil sands producers are working on developing alternative methods of dealing with froth treatment tailings, such as thickening and dewatering methods, which could meet current regulatory requirements. The industry may elect to use such methods or develop others as alternatives to adopting the Company's technology.

While the Company has completed the FEED Project and subsequent validation and optimization engineering for the implementation of the Company's CVW™ technology at Canadian Natural's Horizon oil sands site, Canadian Natural is not required to proceed past this phase nor has it agreed to adopt the Company's CVW™ technology on a commercial scale.

Other companies, research facilities and universities are actively engaged in the research and development of processes for dealing with froth treatment tailings. Each of these organizations has the potential to develop competing processes that would diminish the competitiveness of our CVW™ process. These organizations, including the oil sands producers themselves, have substantial financial resources, research and development capabilities, and other resources, which give them significant competitive advantages over us.

We are dependent on the composition of froth treatment tailings for the quantity and quality of bitumen, solvents and minerals.

There is inherent variability and uncertainty regarding the composition of the feed tailings that may be processed by the CVW™ process from different oil sands sites in commercial projects and over time from the same site, which could impact realized recovery rates, product volumes, revenues and unit operating costs significantly.

More specifically, there is uncertainty relating to the volumes of bitumen, heavy minerals, solvent and water that may be recovered from froth treatment tailings using the CVW™ process due to uncertainties in froth tailings composition and process recovery rates. While there have been many Athabasca basin studies that have assessed the composition of oil sands ores, as well as extensive sampling conducted by the Company and some of its potential oil sands commercialization partners on live froth treatment tailings at various oil sands sites, there remains uncertainty about the levels of bitumen, solvent and heavy minerals, and the composition of such heavy minerals, in any froth treatment tailings streams that may be used in a commercial project. These could vary substantially and adversely from the levels and composition expected by the Company. As such, actual production, and the net revenues and cash flows to be derived therefrom, may vary from time to time, and over the life of a commercial project from expected levels, and such variations may be material.

We are dependent on oil sands operators for froth treatment tailings volumes.

There are numerous uncertainties involved with estimating the quantities of froth treatment tailings that may be available for processing in future commercial projects using the CVW™ process. The quantity of froth treatment tailings available will depend on a number of factors, including the overall volumes of oil sands ore mined and processed by oil sands operators, their extraction and froth treatment efficiency, and the amount and timing of any operational downtime due to planned or unplanned slowdowns, shutdowns or other restrictions on production. The availability of froth treatment tailings for processing will depend on oil sands operators' froth tailings volumes, over which the Company has no control.

The CVW™ process has not been commercially demonstrated and process recoveries on a commercial level are uncertain.

To date, we have focused primarily on R&D, engineering design and validation and optimization. The CVW™ process is a new process and consequently we have no experience operating on a large-scale commercial basis. As such, the recovery of bitumen, heavy minerals, solvent and water in commercial projects and the environmental impacts of using the CVW™ process involves uncertainty. There can be no assurance that the Company's CVW™ process will recover bitumen, heavy minerals, solvent and water at the expected levels, with the expected environmental benefits and/or capital and operating costs or on the expected schedule.

We have no experience operating our CVW™ process on a commercial basis and there are uncertainties involved with commercial project execution.

The execution of commercial projects once negotiated involves risks associated with the planning, engineering, cost, construction, integration, commissioning, and start-up of new CVW™ facilities with existing or new oil sands operations. Risks include failures in the specification, design or technology selection; determining and agreeing upon a scope for the Project; building the Project in the approved time and at the agreed cost; and meeting agreed performance targets, including capital and operating costs, efficiency, recoveries and maintenance costs. Actual results in the execution of any commercial projects could materially and adversely vary from expected outcomes. Many factors can affect key outcomes, including general economic, business and market conditions, the availability and cost of qualified personnel, key materials and equipment, the complexity of managing multiple suppliers and contractors, the complexity of building within existing operating sites, weather conditions, changing government regulations, approval requirements, permits and public expectations.

Capital cost overruns or delays in achieving commercial implementation could have a material adverse effect on the Company's business, financial condition, results of operations and cash flow. Moreover, commercial implementation may require substantial capital and we do not know whether we will be able to secure sufficient funding on terms acceptable to us or at all. Our failure to complete commercial implementation or financing could have a material adverse effect on our business and financial results.

There are operational hazards involved in the CVW™ process.

CVW™ projects will involve the typical risks associated with recovering, transporting and processing hydrocarbons, including fires, explosions, gaseous leaks, migration of harmful substances and spills. A casualty occurrence might result in the loss of life and equipment, as well as injury, property damage or the interruption of the operations of a commercial project. The Company may not carry adequate insurance with respect to all potential casualties, damages, losses and disruptions. Losses and liabilities arising from uninsured or under-insured events could have a material adverse effect on the Company's results of operations, financial condition and prospects.

Heavy minerals price fluctuations are beyond our control and may have a material adverse effect on our business, operating results, financial condition and profitability.

The ability of the Company to develop, finance and operate minerals facilities in the future will be significantly affected by the price of zircon and titanium in the world market. In particular, zircon prices have fluctuated widely since 2009 and are affected by numerous factors beyond the Company's control such as global and regional supply and demand (particularly from China), global or regional political, economic or financial conditions, the cost of substitutes, interest rates, inflation or deflation, and fluctuations in the value of the United States dollar and foreign currencies. There is a high degree of uncertainty regarding the future price of zircon and other minerals that could have an adverse effect on the Company's ability to develop, finance and operate minerals facilities, and if during commercial operations, could adversely affect revenue and profits.

As provided elsewhere in this discussion of risks, as a result of the COVID-19 pandemic, trade disputes between the United States and China and the volatility in global financial markets and commodity prices, amongst other factors, including the outlook for economic growth in Asia, it is unclear how long, or to what extent, these conditions will prevail.

The Asian market has become a significant source of global demand for commodities, including zircon and titanium minerals. The volatility in Asia's economic growth could result in lower prices and demand for the products from our CVW™ process, which would have a negative impact on the Company. We could also experience these negative effects if demand from Asia slowed for other reasons, such as increased self-sufficiency, trade barriers, or certain thrifting initiatives by customers.

Additionally, mineral price declines could adversely affect our continued development of, and eventual commercial production from, our CVW™ process. These declines could impair the economic feasibility to develop, finance and operate minerals facilities. Depending on the price of and demand for zircon and other minerals, the Company may not be able to proceed with the development of minerals facilities. Additionally, continuing to commercially develop our CVW™ process may not be feasible. Even if the continued commercial development of our CVW™ process is ultimately determined to be economically viable, the need to conduct such a reassessment may cause substantial delays and interrupt operations until the reassessment can be completed.

Forecasting our financial and business results due to fluctuations in commodity prices creates complexities and may restrict our access to funding for our commercialization plan.

Due to the stage of development of our business, it is difficult to predict our future revenues or results of operations accurately. We are also subject to normal market and financial risks such as credit risks, foreign currency risks and fluctuations in commodity prices. As a result, it is possible that in one or more future quarters, our operating results may fall below the expectations of investors and securities analysts. Not meeting investor

expectations may materially and adversely impact the trading price of our common shares and restrict our ability to secure required funding to pursue our commercialization plans.

The breadth and complexity of Canadian federal and provincial environmental laws and potential changes make it difficult for oil sands producers to predict the potential financial impacts on oil sands producers and their operations, which may affect the timing and willingness of oil sands producers to evaluate our CVW™ process or enter into commercial projects with us.

A number of statutes, regulations and frameworks are under development or have been issued by various Canadian federal and provincial governments and regulators that affect oil sands developments, including changes relating to such issues as tailings management, water use, air emissions, including greenhouse gases and land use. The breadth and complexity, plus the uncertainty of possible changes make it difficult for oil sands producers to predict the potential financial impacts on them and their operations. Because the uncertainty in predicting future requirements or the impact on oil sands producers and their business, financial condition, results of operations and cash flow, oil sands producers may be unwilling to evaluate our CVW™ process or proceed past the engineering design phase and enter into commercial projects with us until these uncertainties, risks and impacts are better understood.

The royalty regime in Alberta and other fiscal incentives may not encourage oil sands operators to enter into commercialization agreements and could significantly reduce the value of the Company's CVW™ process and technologies.

The prospects for commercializing the CVW™ process, and the Company's operating cash flow from commercial projects, will be affected by the applicable royalty regime, any future changes to the royalty regime by the Government of Alberta and any Alberta or federal fiscal incentives. The Province of Alberta receives royalties linked to price and production of natural resources from lands in which it owns the mineral rights, including lands with new and existing oil sands projects. The governments may not implement a fiscal regime or programs for minerals and bitumen from oil sands tailings that incentivizes oil sands operators to enter commercialization agreements. Further, the governments may implement a regime, programs or taxation that adversely affects the results of operations, financial condition or prospects of the Company or its oil sands partners. In addition, the Company may not be successful in obtaining Alberta or federal fiscal incentives as part of the commercialization process.

There are cyber-security threats that may jeopardize our reliance on information technology.

Our operations are dependent on the functioning of several information technology systems. Exposure of our information technology systems to external threats poses a risk to the security of these systems. This has been an increasing risk given the global pandemic and remote work requirements. Cyber-security threats include unauthorized access to information technology systems, viruses, ransomware and other causes that can result in service disruptions, system failures and the disclosure, deliberate or inadvertent, of confidential business

information. Significant interruption or failure of any or all of these systems could result in operational outages, delays, lost profits, lost data, increased costs, and other adverse outcomes. These factors could include a loss of communication links or reliable information, security breaches by computer hackers and cyber terrorists, and the inability to automatically process commercial transactions or engage in similar automated or computerized business activities.

Exchange rate fluctuations are beyond our control and may have a material adverse effect on our business, operating results, financial condition and profitability.

Our revenues will be affected by fluctuations in the exchange rate between the Canadian dollar and the United States dollar. Once a commercial deal is arranged, we would expect to generate a significant portion of our revenues in United States dollars, while a significant portion of our operating expenses and capital expenditures are in Canadian dollars. As a result, any decrease in the value of the United States dollar relative to the Canadian dollar reduces the amount of Canadian dollar revenues we realize on sales, without a corresponding decrease in expenses. Exchange rate fluctuations are beyond our control, and the United States dollar may depreciate against the Canadian dollar in the future, which would result in lower revenues and margins. In order to reduce the potential negative effect of a weakening United States dollar, we may enter into various hedging programs. However, if the Canadian dollar increases in value, such hedging programs will negatively affect our financial results.

We depend on our intellectual property and our failure to protect that intellectual property could adversely affect our future growth and success.

Our success depends in part on our ability to protect our intellectual property rights. We rely on patent, trade secret, trademark and copyright laws to protect our intellectual property. However, our patent position remains subject to complex factual and legal issues, which may give rise to uncertainty as to the validity, scope and enforceability of a particular patent. Accordingly, there is no assurance that effective patent, trade secret, trademark and copyright protection will always be available for our intellectual property rights, both in Canada and other countries.

We also seek to protect our proprietary intellectual property, including intellectual property that may not be patented or patentable, in part by confidentiality agreements and, if applicable, inventors' rights agreements with our strategic partners and employees. We can provide no assurance that these agreements will not be breached, that we will have adequate remedies for any breach, or that such persons or institutions will not assert rights to intellectual property arising out of these relationships.

We may be involved in intellectual property legal proceedings that cause us to incur significant expenses or prevents us from selling the CVW™ process.

We may become subject to legal proceedings in which it is alleged that we have infringed the intellectual property rights of others or commence legal proceedings against others who we believe are infringing upon our rights. Our involvement in intellectual property litigation could result in significant expense to us, adversely affecting the development of sales of the challenged process or intellectual property and diverting the efforts of our technical and management personnel, whether or not such litigation is resolved in our favour. In the event of an adverse outcome as a defendant in any such litigation, we may, among other things, be required to: (a) pay substantial damages; (b) cease the development, use, sale or importation of processes that infringe upon other patented intellectual property; (c) expend significant resources to develop or acquire non-infringing intellectual property; (d) discontinue processes incorporating infringing technology; or (e) obtain licenses to the infringing intellectual property. We may not be successful in such development or acquisition or such licenses may not be available on reasonable terms. Any such development, acquisition or license could require the expenditure of substantial time and other resources and could have a material adverse effect on our business and financial results.

Global or national health concerns, including the outbreak of pandemic or contagious diseases, such as the recent COVID-19 (coronavirus), may adversely affect the Company.

The Company's business, operations and financial condition could be materially adversely affected by the outbreak of epidemics or pandemics or other health crises. On March 11, 2020, the World Health Organization declared the COVID-19 outbreak a pandemic as it had spread throughout the world. Global reactions to the COVID-19 have caused significant travel restrictions, business closures, school closures, quarantines, restrictions on public gatherings, various degrees of social distancing measures and a general reduction in consumer activity. While these effects are expected to be temporary, in light of the rollout of vaccine programs, the duration of the business disruptions locally, nationally, and internationally and the related financial impact cannot be reasonably estimated at this time. Such public health crises can result in volatility and disruptions in the supply and demand for crude oil and natural gas, global supply chains and financial markets, as well as declining trade and market sentiment and reduced mobility of people, all of which could adversely affect commodity prices, interest rates, credit ratings, credit risk and inflation. In particular, in 2020, global crude oil prices significantly weakened and demand for crude oil and natural gas also significantly declined worldwide, which continued into early 2021. The risks to the Company of such public health crises also include risks to employee health and safety and a slowdown or temporary suspension of operations. Should an employee or visitor in any of the Company's facilities, offices or work sites become infected with a serious illness that has the potential to spread rapidly, this could place the Company's small workforce at risk. The Company takes every precaution to strictly follow industrial hygiene and occupational health guidelines. There can be no assurance that this virus or another infectious illness will not impact the Company's personnel and ultimately its operations.

At this point, the extent to which the COVID-19 pandemic, such as additional COVID-19 variants, may impact the Company, or our key customer Canadian Natural, is uncertain; however, it is possible that the pandemic may have a material adverse effect on the Company's business, results of operations and financial condition.

We may consider new business opportunities.

We may consider expanding our business beyond what is currently contemplated in our business plan. Depending on the financing requirements of a potential acquisition or new process opportunity, we may be required to raise additional capital through the issuance of equity or debt. If we are unable to raise additional capital on acceptable terms, we may be unable to pursue a potential acquisition or new process opportunity.

Critical Accounting Estimates and Judgements

The preparation of financial statements in accordance with IFRS requires management to make critical accounting estimates and judgments that affect the amounts reported in the financial statements and accompanying notes. These estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the actual results. Management considers the following areas to critical, and these are outlined in Note 4 of the Company's Financial Statements.

a) Government assistance

The recovery of government grants and partner project contributions requires judgement to determine when reasonable assurance exists that the Company has complied with conditions contained in the applicable contribution agreements.

b) Recognition of intangible assets

Determining the commencement of capitalization of development costs requires judgement to determine when conditions exist to capitalize costs related to the development of intangible assets.

c) Going concern

Management makes an ongoing assessment of their company's ability to continue as a going concern at each financial reporting date. Management considers financial, operating and other events or conditions that, individually or collectively, could impact going concern. Judgement is applied by management in assessing the liquidity, expenses, likelihood of government assistance, options for financing and project continuation, all of which have an impact on the use of the going concern assumption.

Changes in Accounting Policies, including initial adoption

IFRS Adoption of New IAS

On January 1, 2020, the Company adopted amendments to Presentation of Financial Statements ("IAS 1"). This amendment had no impact to the amounts recorded in the Corporation's consolidated financial statements as of January 1, 2020, or comparative periods.

IFRS Standards Issued Not Yet Effective and Amendments

There are no standards that have been issued, but not yet effective, that the Corporation anticipates having a material effect on the consolidated financial statements once adopted.

Related Party Transaction

There were no related party transactions during the three or six months ended June 30, 2021.

Off Balance Sheet Arrangements

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

Other Information

Outstanding Share Data - as of August 25, 2021:

Number of common shares issued and outstanding:	88,480,791
Number of common share awards granted and outstanding:	6,614,136
Number of warrants – Private Placement units[1]	3,044,742

[1] These common share purchase warrants of the Company were issued to participants in the May 2019 private placement. Each unit consisted of one common share of the Company and one-half of one common share purchase warrant. The Company issued an aggregate of 3,044,742 common share purchase warrants. Each whole warrant is exercisable to purchase one common share at a price of $1.40 per common share until May 9 (2,913,242) and May 30 (131,500), 2022.

Certifications and Compliance

Certifications

The Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") are responsible for the design of internal controls over financial reporting ("ICFR") and disclosure controls of the Company. In accordance with National Instrument NI 52-109, the CEO and CFO have filed certifications that ICFR and disclosure controls have been adequately designed, and that there have been no changes in ICFR that materially affected, or are reasonably likely to materially affect ICFR, during the quarter ended June 30, 2021.

Compliance

Mr. Daniel Erasmus, a registered professional engineer in the Province of Alberta and a member of CIM, is acting as the Qualified Person for the Company on the CVW Horizon project, for the purposes of this MD&A.