



**MANAGEMENT'S DISCUSSION AND ANALYSIS  
FOR THE THREE AND NINE MONTH PERIODS ENDED MAY 31, 2015**

Titanium Corporation Inc. ("Titanium" or the "Company") has prepared the following management's discussion and analysis ("MD&A") to provide information to assist in understanding the financial results for the three and nine month periods ended May 31, 2015. This MD&A should be read in conjunction with Titanium's unaudited interim condensed financial statements as at and for the three and nine month periods ended May 31, 2015 including the notes thereto (collectively, the "Financial Statements"). This MD&A is dated as at and based on information available to management as of July 28, 2015. The Company is a development stage company whose common shares are listed on the TSX Venture Exchange under the symbol "TIC".

The above referenced material is available on Titanium's website at [www.titaniumcorporation.com](http://www.titaniumcorporation.com) or it can be found, along with additional information about Titanium, on the System for Electronic Document Analysis and Retrieval ("SEDAR") at [www.sedar.com](http://www.sedar.com).

The Financial Statements and this MD&A 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 contains forward-looking statements and information that reflects the current expectations of management about the future results, performance, achievements, prospects or opportunities for Titanium. Forward-looking information is provided in this document in the discussion of Titanium's research and development plans under the heading "Titanium's Business" and Titanium's business plans for fiscal 2015 under the headings "Update" and "Next Steps". These statements 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 information may not be appropriate for other purposes.*

*Forward-looking information, by its very nature, is subject to inherent risks and uncertainties and are based on several 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. In particular, the forward-looking information contained in this MD&A is based (in whole or in part) on the results of our research, pilot programs, and studies described in this MD&A under the heading “Titanium’s Business”. The Company has not commercially demonstrated its technologies and there can be no assurance that such research, pilot programs, and studies will prove to be accurate as actual results and future events could differ materially from those expected or estimated in such forward-looking statements. 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 April 16, 2015 and, accordingly, are 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.*

## **Update**

The Company is engaged in on-going confidential discussions with oil sands operators who are interested in implementing the Company’s technology. These discussions include the review of the technical and economic aspects of site specific proposals, as well as prospective business structures and agreements for ownership and operation of the technology and facilities. The Company is also working with a major Canadian bank on potential financial structures for the commercial projects.

The Company believes that its technology offers advantages to oil sands operators in meeting the challenges of new regulations for tailings and dealing with low oil prices. A number of recent developments, both nationally and provincially, which impact the oil sands industry also highlight the advantages of the Company’s technology as discussed further in this MD&A.

In May, an authoritative, independent report prepared for the Canadian Government Ministry of Natural Resources, with support from Environment Canada, cited Titanium’s technology as the solution for froth treatment tailings. The report (titled “Council of Canadian Academies, 2015 *Technological Prospects for Reducing the Environmental Footprint of Canadian Oil Sands*. The Expert Panel on the Potential for New and Emerging Technologies to Reduce the Environmental Impacts of Oil Sands Development”) concluded that “air

pollutants arising from decomposition of residual hydrocarbons in tailings ponds can be treated by keeping froth treatment tailings, the major source of such contaminants (e.g., solvents, VOC's) out of the tailings ponds and treating them separately” and “would address two important tailings problems. It would reduce fugitive emissions and toxicity that remain in the froth tailings....avoid expensive reclamation issues unique to this material.....allow for the recovery of bitumen and metals.” The 12 member expert panel report, co-chaired by Eric Newell, former CEO of Syncrude Canada and Scott Vaughn, President and CEO of the International Institute for Sustainable Development, cited Titanium Corporation as the technology developed to specifically address these issues.

The new Alberta NDP Government, elected in April 2015, has announced a number of policy initiatives and reviews around climate change and royalties that impact the oil sands industry. These changes would increase the value of the potential benefits of implementing the Company's technology.

On June 25, 2015, the Alberta Government announced important changes to current climate change legislation. The required reduction of the emissions intensity of facilities emitting 100,000 tonnes or more of greenhouse gases, which includes the oil sands mining operations facilities, was increased from the current required reduction of 12% to 15% after January 1, 2015 and then to 20% after January 1, 2017.

Under the announced legislation, the cost of green house gas technology fund credits will be doubled over the next two years. To comply with the legislation, in addition to physically abating green house gas emissions, facility owners may purchase technology fund credits from the Alberta Government. The cost of technology fund credits will be increased from the current cost of \$15/tonne to \$20/tonne for 2016 and to \$30/tonne for 2017.

In March 2015, the Alberta Government released its new “Tailings Management Framework for the Mineable Athabasca Oil Sands”. Under the new framework, regulations being developed by the Alberta Energy Regulator (“AER”) require the progressive treatment and reclamation of tailings during the life of operations. Oil sands operators are currently focused on the most effective processes and new technologies to address the on-going remediation of tailings. The work of the Canada's Oil Sands Innovation Alliance (“COSIA”), the industry's collaborative organization established to accelerate the adoption of new environmental technologies, is a key aspect of new technology development and deployment. The operators are currently developing plans for submission to AER to meet the new framework, including the potential inclusion of the Company's CVW™ technology.

World oil markets have continued to be oversupplied in 2015, causing price levels to decline to less than half of prices in comparable periods in 2014. The oil sands industry in particular has been severely affected by low prices, due to the relatively higher production costs for bitumen and large capital investments. To deal with the low price environment, oil sands operators are taking measures to reduce capital expenditures, discretionary spending and staffing levels. Operators are focused on optimization, opportunities to increase production from

existing operations and to reduce operating expenses. Based on its research, pilot programs and studies, the Company believes its technology offers the potential to deliver additional bitumen production recovered from tailings at a direct operating cost below \$10 per barrel, and is expected to provide a cost effective solution for tailings management. There are also a number of potential operating cost savings related to: emissions and volume reductions from tailings; energy cost reductions through hot water recovery and reuse; improved tailings thickening, and reductions in hazardous materials.

In contrast to oil prices, zircon and titanium prices have remained stable over the past year, with industry forecasts for moderate growth in demand and pricing in future years. The potential creation of a new minerals industry, recovering valuable heavy minerals from oil sands tailings by deploying the Company's technology, represents an opportunity for additional resource development and diversification of Alberta's economy.

The Company continues its important industry relationships and participation in COSIA and other organizations. In February 2015, the TSX Venture Exchange announced its Top 50 performing listings for 2014, with Titanium achieving a top placing in the Clean Technology sector. In March 2015, Dr. Kevin Moran was invited to make two presentations during the World Heavy Oil Congress 2015, an assembly of over 1,000 heavy oil professionals, held this year in Edmonton, Alberta. In April, Dr. Moran addressed the first COSIA Innovation Summit held in Banff, Alberta, with 500 delegates attending from industry and government.

The Company is continuing efficiency programs to reduce expenses, conserve cash and evaluate funding options to ensure adequate capital resources are available during commercialization. The Company's executive officers are receiving a significant portion of their compensation in share units and Directors receive all of their compensation in share units to both conserve cash and further align themselves with shareholder's interests.

### **Next Steps**

Adoption of the Company's technology requires the support and cooperation of the oil sands industry and the Alberta government. Titanium is working with those oil sands operators who are most interested in adoption of its technologies. The Company is progressing well through due diligence processes typically involving reviews by research and technology specialists, project engineering, economic, and site operational departments of these large organizations. Implementing Titanium's technology would see concentrator facilities built at oil sands sites which integrate with existing oil sands operations. Separate minerals separation facilities would process heavy mineral concentrates ("HMC") into final minerals products. The facilities may be jointly owned and operated along with oil sands operators or strategic partners. The Company has advanced flexible business models whereby customers may elect to license technology and build certain of the facilities or elect to have the Company, together with partners, build and operate. The following are key steps in establishing commercialization of the Company's technologies:

- One or more oil sands operators complete their internal due diligence and review of proposals and agree to proceed.
- The Company and the oil sands operator(s) negotiate the business model, commercial terms and conditions.
- The Alberta government finalizes the fiscal structure, including the royalty regime, which will apply to this new form of resource recovery.
- The Company finalizes partnering, joint venture and financing arrangements.
- The proponents of the first project begin front-end engineering and design (“FEED”) for bitumen recovery and minerals processing facilities followed by engineering, procurement and construction (“EPC”).
- The EPC period is estimated at approximately 30 months, after which facilities would be commissioned and commercial production commenced.

There is wide acceptance that innovation and new technology are the principal solutions to the reduction of both environmental impacts and rising costs in Canada’s oil sands industry. Through a disciplined research and development (“R&D”) approach and with cooperation from industry and government, the Company believes that it has successfully developed unique technology solutions that offer significant improvements to both environmental and economic challenges. We are confident that this value proposition favours adoption of our technology.

## Financial Information & Analysis

### Summary of Selected Quarterly Results

The following table summarizes the financial data of the Company for the most recently completed eight quarters prepared under IFRS (Canadian dollar in millions except per share data):

	Q3 May 31, 2015	Q2 Feb 28, 2015	Q1 Nov 30, 2014	Q4 Aug 31, 2014
<b>STATEMENT OF LOSS</b>				
Net Loss	\$ 0.5	\$ 0.8	\$ 0.5	\$ 0.7
Basic and Diluted Loss per Share	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01
	Q3 May 31, 2014	Q2 Feb 28, 2014	Q1 Nov 30, 2013	Q4 Aug 31, 2013
<b>STATEMENT OF LOSS</b>				
Net Loss	\$ 0.7	\$ 1.0	\$ 0.8	\$ 0.4
Basic and Diluted Loss per Share	\$ 0.01	\$ 0.02	\$ 0.01	\$ 0.01

The Company is in the development stage and has yet to earn any revenues. Until commercial arrangements are made with an oil sands operator, investments are made and a plant is built and operating, the Company expects to incur losses. Quarterly losses are comprised of R&D and general and administrative (“G&A”) expenditures. Changes in quarterly losses are dependent on the level of pre-commercialization and R&D activity that the Company has underway at any time.

The following summarizes the Company’s financial results for the three and nine month periods ended May 31, 2015 compared to the three and nine month periods ended May 31, 2014:

- Net loss of \$0.5 million for the three month period ended May 31, 2015 decreased by \$0.2 million from \$0.7 million in the comparative three month period ended May 31, 2014. The Company has concluded its R&D phase, reduced expenses and focused on commercialization. Net loss in the current quarter is comprised of G&A expense of \$0.3 million and R&D of \$0.2 million. This compares to \$0.5 million of G&A and \$0.2 million of R&D expenses for the three month period ended May 31, 2014. The \$0.2 million reduction in G&A is primarily consulting and professional fees and compensation and benefits and resulting from overall expense reduction initiatives. For the nine months ended May 31, 2015, net loss of \$1.8 million was reduced from \$2.4 million for the nine month period ended May 31, 2014 as the Company was incurring expenses, in fiscal 2014, for the final phase of a minerals testing program. For a development stage company, the net loss was in line with expectations.

- The Company reduced its G&A and expenses by \$0.2 million for the three month period ended May 31, 2015 compared to the corresponding period in 2014, primarily in the areas of consulting and professional fees and stock-based compensation. Directors fees of \$51,600 were included in deferred compensation in the three month period ended May 31, 2015 which will be settled with deferred share units(DSUs). For the nine month period ended May 31, 2015, G&A and R&D expenses were reduced by \$0.7 million as the Company concluded the final phase of minerals testing in the fiscal 2014 timeframe. With uncertainty related to timing of a first commercial project, the Company has diligently reduced expenses to preserve cash and implemented equity based compensation plans.
- The Company had \$1.2 million in cash at May 31, 2015 as compared to \$2.6 million at August 31, 2014. The decrease in cash of \$1.4 million for the nine month period ended May 31, 2015 relates to general overhead costs and R&D expenses offset by the receipt of a \$0.2 million in refundable research tax credit for the Company's 2013 SR&ED filings. All of the cash balances are liquid and are held in interest bearing cash accounts with major Canadian chartered banks.

### Research and Development Expenditures

Below is a summary of the R&D expenditures by major category (\$ thousands):

	Three months ended			Nine months ended		
	May 31, 2015	May 31, 2014	Increase (decrease)	May 31, 2015	May 31, 2014	Increase (decrease)
Compensation and benefits	\$ 74	\$ 83	\$ (9)	\$ 224	\$ 276	\$ (52)
Deferred Compensation	65	10	55	145	29	116
Pilot plant, rent and other	33	53	(20)	111	445	(334)
Government grant recovery	-	-	-	-	(34)	34
Equity-based compensation	-	16	(16)	3	70	(67)
	<b>\$ 172</b>	<b>\$ 162</b>	<b>\$ (10)</b>	<b>483</b>	<b>786</b>	<b>(303)</b>

- R&D spending in the current quarter consisted of compensation for technical staff and rent, testing expenses, equipment storage fees, and patent filing and maintenance fees.
- For the three month period ended May 31, 2015, R&D spending was \$0.2 million which was consistent with the corresponding period in 2014. For the nine month period ended May 31, 2015, R&D expenses were \$0.5 million, compared with \$0.8 million in the corresponding period, when the Company was completing the final phase of the minerals development program finalizing the flow-sheet circuits and processing HMC into zircon products for customer testing. With the final stage of minerals development

complete, and the focus on commercialization of the CVW™ technology, we expect that R&D expenses in future quarters will continue to be very modest.

## General and Administrative Expenditures

The following table provides details of G&A expenditures for the periods noted (\$ thousands):

	Three months ended			Nine months ended		
	May 31, 2015	May 31, 2014	Increase (decrease)	May 31, 2015	May 31, 2014	Increase (decrease)
Compensation and benefits	\$ 117	\$ 158	\$ (41)	\$ 376	\$ 338	\$ 38
Deferred compensation	119	25	94	252	92	160
Consulting and professional fees	65	170	(105)	354	438	(84)
Directors fees	-	60	(60)	94	170	(76)
Travel	7	10	(3)	53	80	(27)
Rent, insurance and office	25	32	(7)	77	112	(35)
Investor relations and regulatory	11	12	(1)	98	106	(8)
Equity-based compensation	-	41	(41)	24	332	(308)
	<b>\$ 344</b>	<b>\$ 508</b>	<b>\$ (164)</b>	<b>\$ 1,328</b>	<b>\$ 1,668</b>	<b>\$ (340)</b>

The Company has reduced costs where possible to focus its resources on commercialization. G&A expense was lower for the three month period ended May 31, 2015 by \$0.2 million at \$0.3 million as compared to \$0.5 million at May 31, 2014. Cash compensation for the three month period ended May 31, 2015 was lower than the three month period ended May 31, 2014 as management and directors increased equity in lieu of cash compensation programs until the Company is recapitalized. For the nine month period ended May 31, 2015, compensation was slightly higher however, in the prior corresponding period, \$0.1 million of payroll expenses was reclassified to contributed surplus with the award of RSUs to certain officers in lieu of cash compensation. Overall cash compensation for the nine month period ended May 31, 2015 was lower by \$0.1 million due to substitution of equity for cash compensation. This program reduced cash payments by \$0.4 million for the nine month period ended May 31, 2015 reflected as deferred compensation in the income statement detail.

## Liquidity, Capital Resources and Going Concern

The Company had \$1.2 million in cash at May 31, 2015 compared to \$2.6 million at August 31, 2014. The reduction in cash, commensurate with ongoing operational expenses and general and administrative overheads for a publicly traded company. The Company's cash balances consist of interest bearing cash accounts held at Schedule I Canadian chartered banks. The Company is in the pre-commercialization stage as it has yet to earn any revenues and is devoting substantially all of its efforts to commercialization of its technologies. The recoverability of amounts expended on R&D to date is dependent on the ability of the Company to complete pre-



commercialization activities, commercialization at oil sands sites, and the ability of the Company to achieve future profitable operations. The Company is dependent on raising funds through the issuance of securities, 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 future financing will be available on favorable terms. An inability to raise additional financing or to achieve and maintain profitable operations will result in there being significant doubt that the Company will continue as a going concern. If the going concern assumption was not appropriate for these financial statements, then the necessary adjustments to the carrying values of the assets and liabilities, reported income and expenses and the statement of financial position would be required, which could be material.

Now that the R&D and demonstration piloting phases of project development are complete, any discretionary R&D and/or engineering projects will be pursued in conjunction with a financing or grant and/or partner funding. Currently the Company is evaluating funding options to ensure adequate capital resources through the commercialization period. Options available to the Company to fund its future cash requirements include, but are not limited to, new or additional government grants and/or issuances of securities and/or some form of partnership or joint venture; however, as noted above, the Company may not be successful in these endeavors. See “Discussion of Risks” in this MD&A.

The following is a summary of the cash flows for the periods noted:

- Cash used in operating activities for the three month period ended May 31, 2015 was \$0.4 million as compared to \$0.5 million, for the three month period ended May 31, 2014 consisting of G&A and corporate overheads and to a lesser extent R&D. The decrease in use of cash in operating activities was related to the reduction in R&D expense, as piloting projects were completed in the prior fiscal year.
- Cash provided by financing activities for the three month period ended May 31, 2015 was nil compared to \$0.6 million in the previous three month period ended May 31, 2014 representing the final payment under the SDTC Contribution Agreement.

### **Financial Instruments and Financial Risk Factors**

The Company has, for accounting purposes, designated its cash and cash equivalents, research tax credits government grants receivable 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. 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.

#### *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 of Directors of the Company. The Board of Directors of the Company 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. Cash and cash equivalents are held with Schedule I Canadian Chartered banks which are reviewed by management. Management believes that the credit risk concentration with respect to financial instruments is minimal.

#### *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 it will have sufficient liquidity to meet liabilities when due. As at May 31, 2015, the Company had aggregate cash and cash equivalents of \$1.2 million (\$2.6 million, August 31, 2014) to settle current liabilities of \$0.15 million (\$0.4 million, August 31, 2014). Most of the Company’s liabilities have contractual terms of 30 days or less with the remainder due within one year. Deferred compensation liability of \$0.5 million will be settled through the issuance of DSUs or RSUs upon further determination. The Company is evaluating funding options to ensure adequate capital resources through the commercialization period.

#### *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 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 US dollars and to a lesser extent, Australian 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.

The Company manages the risks relating to the financial instruments by holding cash in interest bearing cash accounts at Schedule I Canadian chartered banks. The income statement includes interest income associated with the Company's financial instruments.

### **Titanium's Business**

The Company has developed innovative CVW™ technology that recovers bitumen, solvents, valuable heavy minerals and water from oil sands waste tailings. 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. In fiscal 2011, the Company completed the first phase of a large scale demonstration pilot which culminated several years of progressive R&D of its proprietary technologies. In fiscal 2013, the second phase of piloting provided further confirmation, at higher testing volumes, of the performance of the Company's technology. The 2013 pilot program also produced a bulk sample of heavy mineral concentrates ("HMC") for minerals process testing in Australia. The Company's R&D programs have received strong support from both the Alberta and Canadian governments which have provided over \$10 million of grant funding. COSIA prioritized the Company's technology in its Tailings Technology Roadmap and the Company joined COSIA as an Associate Member.

The Company is working with the mining sector of Canada's oil sands industry making its technology commercially available with a view to developing commercial projects. This industry 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 pipelining to refineries. Heavy minerals that naturally occur in these oil sands deposits are concentrated in tailings during one of the bitumen extraction steps 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 bitumen, solvents and heavy minerals in

froth treatment tailings streams which are currently deposited in tailings ponds. The combination of bitumen and solvent losses to tailings ponds results in substantial volatile organic compound emissions and greenhouse gas (“GHG”) emissions from the ponds.

Five large oil sands mining sites are currently operated by Syncrude Canada, Suncor Energy Inc., Canadian Natural Resources Limited (“CNRL”), Albian Sands (Shell) and Imperial Oil Kearn. Expansion projects are underway at CNRL and Imperial Oil Kearn and Suncor is proceeding with the new Fort Hills oil sands mining project. These current, developing sites and forecast expansions will significantly increase Canada’s oil sands mining production in the years ahead. The growth of the oil sands mining industry means that increased volumes of bitumen, solvents and minerals will be lost in froth treatment tailings until new technology is adopted to recover this lost value.

Over a four year period the Company’s scientists, together with research, engineering and Government partners, conducted highly disciplined, phased research programs as follows:

- Phase I - initial laboratory scale work: the objective was to identify the most prospective laboratory-based solutions;
- Phase II - continuous bench scale testing: the objective was to provide scaling data for piloting; and
- Phase III - integrated pilot testing: the objective was to demonstrate the operation of the technology in an integrated continuous process.

The following summarizes the successful execution of the Company’s research programs:

The Company completed Phases I and II, 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. As a condition of the grant, a Government Advisory Committee to the Company was formed, comprised of representatives from the Energy and Environment Ministries, the Energy Resources Conservation Board, Alberta Innovates and the AEIF grant program was extended to include partial funding of the Company’s demonstration pilot program. The Company has completed all programs associated with the AEIF grant and provided final reports to the Alberta Government.

The success of the R&D program resulted in the award of a \$4.9 million Federal Government grant from Sustainable Development Technologies Canada (“SDTC”) in September 2009. The SDTC grant was utilized by the Company to fund one-third of the integrated demonstration pilot program. The Company engaged SNC-Lavalin as its engineering partner for pilot and full scale commercial engineering. A consortium comprised of the three naphtha based oil sands producers and Government (Federal and Alberta) was formed to facilitate the pilot. The integrated demonstration pilot was engineered and operated in two phases over a four year period and decommissioned in May 2013. Tailings from the three naphtha based oil sands operators were extensively tested during the program.

From June 2010 through May 2013, the integrated demonstration pilot (Phase III) was operated at CanmetENERGY Natural Resources Canada’s Devon, Alberta pilot facility. This facility is the major site for the testing of oil sands froth treatment technologies by the oil sands industry. Over 50,000 independent sample analyses were conducted by Maxxam Analytics during the two phase pilot program. The Company completed demonstration piloting for the three naphtha based oil sands operators achieving excellent results: overall bitumen recoveries of up to 82% and solvent recoveries of 75%, the top end of targeted ranges; removal of bitumen from HMC; and effective thickening of tailings and recovery of water for recycling. The Company also conducted pilot testing of paraffinic froth treatment tailings for two other oil sands firms, completing four weeks of piloting at a third party site, achieving bitumen recoveries of 85%.

Following the completion of the demonstration pilot, the Company provided detailed technical reports and reviews to the oil sands and Government participants. The Company met with the oil sands participants to review results and provide economic business case projections and proposals. The Company has also developed relationships with potential partners that could bring operational, marketing and financial resources to commercial ventures. In parallel, the Company conducted minerals separation testing programs, utilizing cleaned HMC to produce final zircon products. The minerals program continued through 2014, leading to an optimized flow-sheet configuration and customer tested final products derived from pilot testing. By the end of fiscal 2014, the Company had successfully completed R&D and extensive demonstration piloting for the oil sands industry and completed an extensive minerals process testing program in Australia.

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 emissions reductions, the Company’s technology affords a number of other opportunities to reduce the environmental footprint of mining oil sands operations. The Company commissioned a number of studies to support its view of the anticipated benefits of reducing emissions and environmental footprint of mining oil sands

operations through deployment of the CVW™ process and improvements in tailings thickenings after the CVW™ process.

Based on the results of the Company's research programs and studies described herein, following processing by the Company's technology, tailings thicken more effectively in subsequent thickening applications toward meeting Government of Alberta regulation requiring 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 bitumen recovery and other services, reducing energy costs and river water usage and GHG's related to reheating cold pond water used in the bitumen extraction process.

Based on our research, pilot programs and studies, key economic drivers that support the adoption of Titanium's technology include: the commodity value and significantly reduced costs for recovery of bitumen and solvents currently lost to tailings ponds; recovered zircon and titanium products; the value of emissions reductions under current and future regulatory regimes; energy cost reductions due to hot process water reuse and cost reductions related to tailings remediation. We believe that, with a heightened sensitivity to operating costs, enhanced production and reducing environmental impacts from oil sands operators, commitments by the provincial and federal governments to reduce carbon emissions and increased monitoring of oil sands emissions, there is greater desire to implement solutions to address these concerns. Potential economic returns, incremental resource recovery, development of a new minerals industry and reduction of environmental impacts, we believe, favor adoption of our technology. Refer to the material risks, uncertainties and other factors which may affect the Company are described in more detail in this MD&A under the heading "Discussion of Risks".

## **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 and profitability of commercial projects.

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

We expect to incur continued losses over the next several years. 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. 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 that we will be able to access additional capital when necessary.

***A market for our CVW<sup>TM</sup> process may never develop or may take longer to develop than we anticipate.***

Our CVW<sup>TM</sup> process represents an emerging market opportunity, and we do not know whether oil sands operators will adopt our CVW<sup>TM</sup> process in their operations. The development of a market for our CVW<sup>TM</sup> process may be affected by many factors, some of which are beyond our control, including the emergence of newer, more competitive technologies and processes, the cost of building and operating facilities to run our CVW<sup>TM</sup> process, regulatory requirements, the final fiscal structure applicable to our CVW<sup>TM</sup> process, the perception of oil sands producers of the viability and necessity of our CVW<sup>TM</sup> process, the financial capacity and willingness of oil sands producers to commit capital in the current low oil price environment, and their reluctance to adopt new technologies and processes.

If a market for our CVW<sup>TM</sup> process fails to develop, or develops more slowly than we anticipate, we may never achieve profitability.

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

The execution of our business plan poses many challenges 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 for the implementation and development of our CVW<sup>TM</sup> process. If we experience significant cost overruns on our programs, or if our business plan is more costly than we anticipate, certain research and development 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. 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 addition, 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.

***We are dependent upon oil sands producers to adopt and integrate our CVW<sup>TM</sup> process in their oil sands operations.***

Our success depends on the willingness and capacity of oil sands producers to adopt and integrate our CVW<sup>TM</sup> process into their own oil sands operations. For oil sands producers to adopt and implement our CVW<sup>TM</sup> 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 operators. We can offer no guarantee we will be able to conclude such commercial negotiations on reasonable terms or at all.

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

We cannot guarantee that we will be able to develop a commercially scaled version of our CVW<sup>TM</sup> process on the timetable we anticipate, or at all. We may encounter problems and delays in the commercialization of the CVW<sup>TM</sup> process for a number of reasons, many of which are beyond our control.

***The CVW<sup>TM</sup> process has not been commercially demonstrated and process recoveries on a commercial level are uncertain.***

To date, we have focused primarily on R&D. The CVW<sup>TM</sup> 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<sup>TM</sup> process involves uncertainty. There can be no assurance that the Company's CVW<sup>TM</sup> process will recover bitumen, heavy minerals, solvent and water at the expected levels, with the expected operating costs or on the expected schedule. In addition, there is inherent variability and uncertainty regarding the composition of the feed tailings that may be processed by the CVW<sup>TM</sup> 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 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<sup>TM</sup> 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 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 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; building the project in the approved time and at the agreed cost; and meeting agreed performance targets, including operating costs, efficiency, recoveries and maintenance costs. Actual results in the execution of 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 will 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.

***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.

***Crude oil and bitumen price fluctuations are beyond our control and may affect the ability of oil sands producers to 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 economics, operating results, financial condition and profitability of commercial projects.

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 the supply of and demand for oil, market 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. West Texas Intermediate (“WTI”) is an important benchmark for Canadian crude oil as it reflects mid-continent North American prices and its Canadian dollar equivalent as the basis for determining royalties on oil sands producers' bitumen sales. Additionally, Western Canadian Select (“WCS”) is a blend of heavy oils, consisting of heavy conventional crude oils and bitumen, blended with sweet synthetic, light crude oil and condensate. WCS generally trades at a discount to the WTI benchmark price.

Oil prices are expected to remain volatile and may decline in the near future as a result of global excess supply due to the increased growth of shale oil production in the United States, the decline in global demand for exported crude oil commodities, and the Organization of the Petroleum Exporting Countries' ("OPEC") recent decisions pertaining to the oil production of OPEC member countries, among other factors. This volatility has resulted in certain oil sands operators reducing and suspending their production and capital spending, and a prolonged period of low crude oil and bitumen prices could result in certain oil sands producers further suspending production or affect the level of spending by oil sands operators on capital intensive projects and the willingness of oil sands producers to adopt and integrate our CVW<sup>TM</sup> process into their own oil sands operations.

***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 potentially 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.

The Chinese market has become a significant source of global demand for commodities, including zircon and other minerals. Chinese demand has been a major driver in global commodities markets for a number of years. A slowing in China's economic growth could result in lower prices and demand for the products from our CVW<sup>TM</sup> process, which would have a negative impact on the Company. We could also experience these negative effects if demand from China slowed for other reasons, such as increased self-sufficiency or certain thrifting initiatives by customers.

Future mineral price declines could adversely affect our continued development of, and eventual commercial production from, our CVW<sup>TM</sup> 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<sup>TM</sup> process may not be feasible. Even if the continued commercial development of our CVW<sup>TM</sup> 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.

***Potential fluctuations in our financial and business results make forecasting difficult and may restrict our access to funding for our commercialization plan.***

We expect our revenues and operating results to vary significantly from quarter to quarter. As a result, quarter-to-quarter comparisons of our revenues and operating results may not be meaningful. 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 and security analyst 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 royalty regime in Alberta and other fiscal incentives may not encourage oil sands operators to enter commercialization agreements and could significantly reduce the value of the Company's CVW<sup>TM</sup> process and technologies.***

The prospects for commercializing the CVW<sup>TM</sup> process, and the Company's operating cash flow from commercial projects, will be affected by the applicable royalty regime and any fiscal incentives. The Province of Alberta receives royalties linked to price and production levels on the production of natural resources from lands in which it owns the mineral rights, including lands with new and existing oil sands projects.

The Government of Alberta is developing a fiscal framework related to the recovery of heavy minerals and bitumen from oil sands tailings. It is anticipated that this fiscal framework will provide clarity around royalties, capital cost treatment and other fiscal terms required for planning and investing in commercial projects. The Government of Alberta may not adopt a fiscal regime for minerals and bitumen from oil sands tailings that incentivizes oil sands operators to enter commercialization agreements. Further, the Government of Alberta may implement a regime that adversely affects the results of operations, financial condition or prospects of the Company or its oil sands partners.

Further, changes to the royalty regime in Alberta that impose higher than expected royalties on oil sands operators would reduce the total earnings to be derived from commercial projects, and could make future commercialization agreements harder to negotiate on terms acceptable to the Company or at all. Such revisions could also significantly reduce the value of the Company's CVW<sup>TM</sup> process technologies.

***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. We expect to generate a significant portion of our revenues in United States dollars while a significant portion of our operating expenses, cost of revenues 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, it 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 causes us to incur significant expenses or prevents us from selling the CVW<sup>TM</sup> 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; cease the development, use, sale or importation of processes that infringe upon other patented intellectual property; (b) expend significant resources to develop or acquire non-infringing intellectual property; (c) discontinue processes incorporating infringing technology; or (d) 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.

***We currently face and will continue to face competition.***

As our CVW<sup>TM</sup> 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.

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<sup>TM</sup> 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.

***There are operational hazards involved in the CVW<sup>TM</sup> process.***

CVW<sup>TM</sup> 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.

***We could lose or fail to attract the personnel necessary to run our business.***

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 more skilled personnel. Recruiting personnel for the oil sands and waste remediation industry is highly competitive. 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.

### **Related Party Transactions**

The Company does not have any related party transactions.

### **Off-Balance Sheet Arrangements**

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

### **New standards and amendments issued but not yet adopted**

Certain new standards, amendments to standards and interpretations are not yet effective for the current reporting period, and therefore have not been applied in preparing the financial statements.

The Company has reviewed the new and revised accounting pronouncements that have been issued but are not yet effective and determined that the following may have an impact on the Company and will become effective beginning on or after June 1, 2015:

IFRS 9 - "Financial Instruments" This amendment replaces the current standard IFRS 39 "Financial Instruments: Recognition and Measurement", replacing the current classification and measurement criteria for financial assets and liabilities with only two classifications categories: amortized cost and fair value. The amendment is effective January 1, 2018.

IFRS 15 – “Revenue from Contracts with Customers”. This amendment replaces the existing revenue standards and interpretations with a single standard and provides additional guidance on revenue recognition for contracts with customers. The amendment is effective January 1, 2017, with early adoption permitted.

The Company is currently evaluating the impact of adopting these standards on its financial statements.

## Other Information

### Outstanding Share Data - as at July 29, 2015:

Number of common shares issued and outstanding: 64,425,040

Number of common share awards granted and outstanding: 4,046,412

## Compliance

Mr. Neil Dawson, of Australia, and a registered member of AusIMM is the independent consultant who acts as the Qualified Person for the Company on the *CVW*<sup>TM</sup> project.