MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE YEAR ENDED DECEMBER 31, 2022

This Management's Discussion and Analysis ("MD&A") should be read in conjunction with CVW CleanTech Inc.'s ("CVW CleanTech" or the "Company") audited financial statements and notes thereto for the year ended December 31, 2022. This MD&A has been prepared as of April 20, 2023. CVW CleanTech is a development stage company whose common shares are listed on the TSX Venture Exchange under the symbol "CVW". This MD&A and the audited financial statements and comparative information have been prepared and approved by the Board of Directors (the "Board of Directors") of the Company in accordance with International Financial Reporting Standards ("IFRS"). All financial measures presented in this MD&A are expressed in Canadian dollars unless otherwise indicated.

Additional information and the above referenced material is available on CVW CleanTech Inc.'s website at www.CVWCleanTech.com or on SEDAR at www.sedar.com

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Nature of Business

CVW CleanTech is a clean technology innovator that has developed a suite of technologies to serve the mining sector of the oil sands industry. Creating Value from Waste™ (“CVW™”) technologies allow oil sands mining operators to extract valuable commodities from froth treatment tailings, to reduce greenhouse gas emissions and enhance tailings management. Recovering additional bitumen and solvents from the existing froth treatment tailings stream provides incremental revenue, helping increase oil sands mining profitability. Critical minerals, such as zircon and titanium, may also be recovered from froth treatment tailings, providing a new source of revenue for operators. These minerals have been highlighted by the Alberta and Canadian government as crucial to the development of Canada’s low carbon economy.

The Company expects recovery of valuable products from waste streams will also result in important and timely environmental and economic benefits for the oil sands mining industry. Environmental benefits include a reduction in GHG (greenhouse gases or “GHGs”) emissions at the host oil sands mining operator site. When residual amounts of hydrocarbons biodegrade in a tailings pond, GHGs are released, primarily methane, which is known to have a global warming potential at least 25 times as potent as carbon dioxide when considering its impact over 100 years. By recovering bitumen and solvents that otherwise would be lost in tailings waste, methane emissions from tailings ponds can be significantly reduced. Remediation of oil sands mining tailings is a priority for all stakeholders, including industry, community members, government, regulators and investors. CVW CleanTech’s technology enhances tailings management and delivers environmental benefits by producing a lower volume of tailings with a cleaner composition for deposition. Canada’s oil and gas industry has set ambitious targets to address these issues and CVW™ technologies can help them achieve these goals.

CVW CleanTech is also actively reviewing diversification opportunities to enhance our technology portfolio and identify additional value add opportunities. These include examining how the Company’s technologies and resources could be applied in the clean technology industry, more broadly. Diversifying in this fashion, while retaining a focus on clean technology and the role it plays within decarbonization and the circular economy, has the potential to accelerate the growth of the business across multiple sectors and geographies while transforming the company into a leader in the clean tech space.

Selected Annual Information

The following table presents a summary of selected annual financial information in accordance with IFRS:

	December 31, 2022	December 31, 2021	December 31, 2020
Net Loss	$4,405,000	$2,272,000	$3,387,000
Net loss per Share (Basic & Diluted)	$0.04	$0.02	$0.04
Cash and cash equivalents	$6,958,000	$408,000	$2,656,000
Total assets	$7,068,000	$617,000	$2,699,000

All figures rounded to the nearest $1,000, except per share amounts.

Over the past year, CVW CleanTech has made numerous advances. In the first quarter of 2022, the business was recapitalized with a $5 million private placement. In connection with this financing, new directors were appointed to the Board. These leaders have taken action with new strategies to advance the commercialization of CVW™ technologies. A key priority for the business and a continuing focus is to ensure that commercial scale deployment of CVW™ technologies in the oil sands mining sector moves ahead in a timely fashion and delivers value to CVW CleanTech's shareholders. Our business development activities have broadened to include engagement with the major mining oil sands operators.

Throughout the year, our technical team reviewed a number of iterations and developed new options for the commercial deployment of CVW™ technologies, such as phasing the development of the hydrocarbon and mineral recovery modules. We are also exploring options to build multi-user centralized mineral separation facilities to achieve economies of scale and increase our project's returns. CVW CleanTech has developed possible financing structures for these CVW™ projects, which have been prepared to offer oil sands mining operators alternatives that will meet their corporate financing needs and preferences, while utilizing CVW CleanTech management's experience in capital structuring. These financial proposals are designed to provide CVW CleanTech with long-term cash flow, retention of our CVW™ intellectual property and provide attractive returns to oil sands mining operators and CVW CleanTech. Oil sands mining operators will receive robust economic returns from additional commodity recovery coupled with operational and environmental benefits that come with the 'Creating Value from Waste' technology.

During the third quarter of 2022, we welcomed our new CEO, Akshay Dubey. To date, he has led business development and investor relations initiatives, which we expect will help to position CVW CleanTech as a leader in environmentally sustainable technology solutions. In seeking to diversify and create value for our investors, CVW CleanTech is actively considering diversification strategies that will position us as a leader in the clean tech commodity space. We are evaluating options to achieve this goal, as we seek to identify business opportunities that are complementary to our own Creating Value from Waste^{TM} technologies and branding.

In the fourth quarter of 2022, we completed a second private placement financing, raising $1.4 million in capital. Cash generated from financing activities totalled $9.9 million for the year ended December 31, 2022, whereas there were no cash inflows from financing activities in either of 2021 or 2020.

We have been fortunate to welcome Mr. Pierre Lassonde, a highly respected Canadian entrepreneur and the co-founder of Franco Nevada Corporation, as a special advisor to the CEO and Board of Directors. Mr. Lassonde's expertise and strategic insights will be particularly valuable in the areas of clean energy and sustainable investment.

For the year ended December 31, 2022, CVW CleanTech reported net losses of $4.4 million or $0.04 per share. Non cash charges recognized for stock-based compensation expense totalled $2.1 million in 2022, whereas the amounts for stock-based compensation expense were significantly lower in prior years (2021 - $101,000; 2020 - $323,000).

We continue to monitor the sources of government grants and similar funding opportunities that promote development of our commercial applications. At the date we have a commercial agreement in place with an oil sands mining operator, we expect to apply for government funding with the Strategic Innovation Fund, including the Net Zero Accelerator, the Sustainable Technology Development Fund and Emissions Reduction Alberta. The more recently announced Canada Growth Fund and the clean technology fund with the Business Development Bank of Canada are exciting possible future partners which we will be investigating further. We are also exploring how the recently announced Clean Manufacturing Investment Tax Credit targeting critical mineral production could apply to a future CVW^{TM} project with critical minerals recovery. Our existing funding and relationships with many of these agencies and the Clean Growth Hub are expected to help streamline future application processes.

These agencies are expected to play a role in helping to provide further sources of low cost and/or non repayable capital as we move the CVW™ technologies from development stage to full scale commercial operations. We expect that these government grants will be a material source of capital as we look to develop our first plant.

Liquidity and Capital Resources

CVW CleanTech held cash and cash equivalents of $6.9 million at December 31, 2022 (December 31, 2021: $408,000). During the fourth quarter of 2022, a private placement of equity units (shares and warrants) yielded $1.4 million in additional cash. The conversion of warrants yielded a further $450,000 in cash during December 2022. There were no similar financing activities during the year ended December 31, 2021.

The Company has no third-party debt or similar credit facilities in place. During the year ended December 31, 2022, financing activities contributed $9.9 million of cash, net of $495,000 in related financing fees. Due to the increasing interest rate environment and the relative accumulation of cash in our accounts, we earned approximately $100,000 in interest income during the year. Our cash balances are held in major Canadian financial institutions with credit ratings of Aa or higher and are available upon demand.

Based on internal forecasting and considering day to day operating needs, our liquidity position is strong and will meet day to day operating needs for the forthcoming year. Amounts in excess of day-to-day operating needs will be preserved for capital and growth-related expenditures. The stable base of cash on hand could help provide a ready source of early-stage capital where upfront spending may be required at the outset of a commercial endeavor with an oilsands mining operator, or where other diversification opportunities arise. Initial expenditures may be required in areas such as detailed engineering, project assessments or for due diligence exercises.

When CVW CleanTech has agreements in place to commercially deploy its technologies, additional sources of capital will be required. Sources of capital to fund that stage of development are anticipated to come from a variety of sources, including, but not limited to government grants, debt financing, strategic partners and future equity placements.

Selected quarterly and annual results

The following table summarizes the financial results of the Company for most recently completed quarterly periods in accordance with IFRS:

	FYE Dec 31, 2022	Q4 Dec 31, 2022	Q3 Sept 30, 2022	Q2 June 30, 2022	Q1 Mar 31, 2022
Net Loss	$4,405,000	$1,220,000	$517,000	$1,828,000	$836,000
Net loss per share (Basic and Diluted)	$0.04	$0.01	$0.01	$0.02	$0.01

	FYE Dec 31, 2021	Q4 Dec 31, 2021	Q3 Sept 30, 2021	Q2 June 30, 2021	Q1 Mar 31, 2021
Net Loss	$2,272,000	$555,000	$87,000	$718,000	$912,000
Net loss per share (Basic and Diluted)	$0.02	$0.01	$0.01	$0.01	$0.01

All figures rounded to the nearest $1,000, except per share amounts

For the three and twelve-month periods ended December 31, 2022, the Company reported net losses of $1.22 million and $4.41 million, respectively. For the year ended December 31, 2022, the net loss of $4.41 million was comprised of G&A expenses of $3.48 million, R&D expenses of $1.03 million and other income of $100,000. This compares to a net loss of $2.27 million for the year ended December 31, 2021. The components of the net loss for the 2021 year end were $2.01 million of G&A expenses, $315,000 in net R&D expenses and $53,000 in other income.

The net loss for the three-month period ended December 31, 2022, consisted of G&A expenses of $919,000, R&D expenses of $360,000 and other income of $59,000. This compares to a net loss of $555,000 for the three-month period ended December 31, 2021, which consisted of G&A expenses of $633,000, a net R&D recovery of $78,000 and other income of $48,000.

Research and Development Expenditures

Three months ended December 31, 2022 and 2021

	December 31, 2022	December 31, 2021	Increase (decrease)
Compensation and benefits	343,000	81,000	262,000
Projects and related expenditures	17,000	75,000	(58,000)
Stock-based compensation	-	4,000	(4,000)
Deferred compensation	-	(12,000)	12,000
Government grants	-	(226,000)	226,000
Research and development, net of recoveries	$360,000	($78,000)	$438,000

Rounded to the nearest $1,000, except per share amounts

During the fourth quarter of 2022, research and development ("R&D") expenditures were $438,000 higher than the same period of 2021. Two items made up the majority of the change: compensation and benefits and government grants.

A bonus of $200,000, payable on December 31, 2022 to two of the Company's officers increased compensation and benefits expense as compared to the 2021 amount. There was no similar bonus in the fourth quarter of 2021. The commitment for this bonus arose pursuant to the terms of the January 2022 private placement. A further net increase of $63,000 arose due to the timing of accruals that were unwound in the last quarter of 2021. These reversals related to accruals made in the first three quarters of 2021 for restricted share unit awards ("RSUs") and similar incentive pay. The net effect of the reversal was to credit the expense in the fourth quarter of 2021, reducing the net compensation amount. A similar reversal occurred for deferred compensation expense in the fourth quarter of 2021, resulting in a credit for that quarter. During the fourth quarter of 2022, no deferred compensation expense amounts were incurred.

In respect of government grant funding, during the fourth quarter of 2021, $226,000 of government grant funding was recognized, which offset total expenditures for that period. No similar government grants were recognized in the three months ended December 31, 2022. Government grants were recognized in Q4 2021 as a result of eligible expense claims with the Government of Canada's Clean Growth Program. The contract provided funding for eligible expenses through to March 31, 2022. As a result, there were no claims resulting in government grant revenue in Q4 2022.

Project costs were $58,000 lower than the comparative period of 2021. An active froth treatment sampling program was underway in 2021, along with engineering consulting project activity. The froth treatment sampling program was nearing completion in the last quarter of 2022 and engineering project work was paused, leading to the decreased total expense.

Stock-based compensation expense was $4,000 lower in the fourth quarter of 2022 as compared to the same period in 2021. During Q4 2022, there were no outstanding option grants held by R&D management team members that had not vested.

Twelve months ended December 31, 2022 and 2021

	December 31, 2022	December 31, 2021	Increase (decrease)
Compensation and benefits	763,000	559,000	204,000
Projects and related expenditures	129,000	1,744,000	(1,615,000)
Stock-based compensation	135,000	36,000	99,000
Government grants	-	(2,024,000)	(2,024,000)
Research and development, net of recoveries	$1,027,000	$ 315,000	$712,000

Rounded to the nearest $1,000, except per share amounts

During the year ended December 31, 2022, R&D expenditures were $712,000 higher than in the corresponding period of 2021. The primary differences relate to project expenses and related government grant revenue recognized in 2021. During 2021, the Company completed the redesign of the minerals and transload facilities, along with optimization engineering and extensive capital planning forecasts. These expenditures were largely related to the collaboration with Canadian Natural Resources Ltd. ("Canadian Natural"), at their Horizon oil sands facility. The total of $1.74 million in project costs included front end engineering design studies with consulting engineering firms, design simulations for the tailings distillation units, along with further refinement for the mineral separation plant process.

During the fiscal year ended December 31, 2020, CVW CleanTech incurred project expenses that were eligible for government grant funding. However, the grant awards were not contracted and in place until midway through 2021. As a result, a portion of the grant funding in 2021 related to expenditures that were recognized in the 2020 year-end.

This caused 2021 government grant funding to exceed the related project expenses in the 2021 year end. Further project expenditures in 2022 were not eligible for government grants.

Compensation and benefits expense increased by $203,000 as compared to the 2021 year end amount. The increase was due to the recognition of $200,000 payable at December 31, 2022 to two of the Company's officers. The commitment for this bonus arose pursuant to the terms of the January 2022 private placement, as previously disclosed by the Company.

Stock-based compensation expense for the year ended December 31, 2022 was $99,000 higher in the 2021 year end. The change was due to the grant and the complete vesting of stock options granted in January 2022. The expense in 2021 related to final vesting of options granted prior to 2021, whereas the 2022 amount was expensed on an accelerated basis. Stock options granted prior to 2022 were expensed using a time-based methodology, with grants expensed over a 3-year vesting period. In contrast, the options granted in 2022 required a target stock price to be met prior to vesting. The market price condition was fully satisfied in June 2022, which required the full expense to be recognized within one fiscal year.

General and Administrative Expenditures

Three months ended December 31, 2022 and 2021

	December 31, 2022	December 31, 2021	Increase (decrease)
Compensation and benefits	143,000	107,000	36,000
Consulting and professional fees	91,000	268,000	(177,000)
Deferred compensation – management	-	(12,000)	12,000
Deferred compensation – directors	-	202,000	(202,000)
Directors' fees	44,000	-	44,000
Investor relations and regulatory	13,000	28,000	(15,000)
Rent, insurance and office	40,000	32,000	8,000
Stock-based compensation – directors	-	3,000	(3,000)
Stock-based compensation – management	576,000	5,000	571,000
Travel	12,000	-	12,000
	$919,000	**$ 633,000**	**$286,000**

Rounded to the nearest $1,000, except per share amounts

Expenses for the general and administrative function increased by $286,000 for the fourth quarter of 2022 when compared to the amount for the fourth quarter of 2021. An increase in stock-based compensation expense of $571,000 was offset by significant reductions in consulting and professional fees and deferred compensation expenses.

During September 2022, the Company appointed a new Chief Executive Officer. A component of the compensation plan included the grant of 5 million stock options. These options were granted in two tranches, with 2.4 million granted at an exercise price of $1.27 and 2.6 million granted at an exercise price of $1.35.

The stock-based compensation expense relating to the September 2022 option grants is being recognized over periods ranging from 18 to 30 months, based on management's estimate of the date that the non-market performance criteria will be satisfied. If any of the non-market performance vesting conditions are achieved earlier, the expense relating to those options will be accelerated and recognized immediately. If the market price condition is achieved, the expense associated with all 5 million options will be accelerated and recognized at that date, so long as the minimum 18-month period from the grant date has elapsed.

The stock -based compensation expense within the general and administrative function of $576,000 during Q4 2022 relates entirely to the September 2022 stock option grants.

Compensation and benefits expense increased by a net of $36,000 quarter over quarter. The effect of year end adjustments posted in Q4 2021 resulted in credits of $38,000. Without these adjustments, which reversed previous bonus accruals, the compensation and benefits expense for the fourth quarter of 2021 would have been approximately $145,000.

Consulting and professional fees fell by $177,000 comparing Q4 2022 with Q4 2021. During the fourth quarter of 2021, legal expenses were significantly higher than 2022. These costs were incurred to negotiate general terms of possible recapitalization and restructuring arrangements. The reduction in legal fees were offset by increases in professional fees relating to audit, accounting and tax filings.

Compensation for the Board of Directors in 2022 was comprised of an annual retainer of $30,000 for each non-management director, payable quarterly, plus reimbursement for out-of-pocket travel expenses and a per diem for hours spent directly on Company business. The Board of Directors in 2021 was compensated in a different fashion, earning fees for each meeting attended. In addition, an annual amount was provided to a director that acted as chairperson of the Board of Directors or one of its committees. The 2021 amounts were recorded as a deferred compensation expense, as it was anticipated the amounts would eventually be settled by issuing deferred share units (“DSUs”), when sufficient room in the equity plans arose. The deferred compensation liability was settled by cash payment with proceeds from the January 2022 private placement. Comparing the amounts of deferred compensation for directors in Q4 2021 to the directors’ fees recorded for Q4 2022, the total decreased by $158,000 for the quarters ended December 31.

Investor relations and regulatory expenses declined approximately $15,000 comparing Q4 2021 to Q4 2022. During December 2021, an additional $19,000 was incurred to send out meeting materials for the annual general meeting. This meeting had been postponed and rescheduled earlier in 2021. There were no similar meeting costs incurred in December 2022. The decrease was offset by approximately $5,000 in additional charges payable to the Company’s transfer agent, pursuant to the terms of the warrant agency agreement in place. There were no warrant agency agreements in place in the fourth quarter of 2021.

Twelve months ended December 31, 2022 and 2021

	December 31, 2022	December 31, 2021	Increase (decrease)
Amortization	-	5,000	(5,000)
Compensation and benefits	595,000	636,000	(41,000)
Consulting and professional fees	370,000	602,000	(232,000)
Directors' fees	267,000	438,000	(171,000)
Investor relations and regulatory	113,000	128,000	(15,000)
Rent, insurance and office	138,000	137,000	1,000
Stock-based compensation – directors	1,286,000	28,000	1,258,000
Stock-based compensation - management	689,000	36,000	653,000
Travel	18,000	-	18,000
	$3,476,000	$2,010,000	$1,466,000

General and administrative expenditures were $1.47 million higher than in the corresponding period of 2021. During 2022, 9.5 million stock options were granted, resulting in an increase of $1.91 million for stock-based compensation expense. The expense was relatively large, as 4.5 million of these options vested within six months of being granted. This resulted in the full amount of the expense for the January 2022 option grant being recognized during the 2022 fiscal year. Prior to 2022, options were expensed using a time-based graded vesting methodology. None of the options granted in 2022 vest solely upon time, and instead have a variety of performance criteria that must be satisfied before vesting will occur. These vesting conditions help to ensure that shareholder interests are directly aligned with these long-term incentive instruments.

During the year ended December 31, 2022, a total of $1.98 million was recorded as stock-based compensation expense within the general and administrative function. This amount may be further broken down into $651,000 relating to the September 2022 option grant, $1.31 million relating to the January 2022 option grant and the balance attributable to grants arising prior to January 2022.

During September 2022, 5 million options were granted to the incoming CEO. These options must be held for a minimum of 18 months before vesting occurs. The non-market performance vesting conditions require the Company to move through a series of successive milestones that culminate in the construction of a CVW™ project. Vesting will also occur should the Company's shares trade at or above $3.60 for a consecutive 90-day period. Should the market price vesting condition be fulfilled, the full expense associated with these options would be accelerated and recognized at that date.

Compensation and benefits expenses netted to a $40,000 decrease year over year. The retirement of the Company's previous CEO in March 2022 resulted in a one-time payment of $200,000 as a retiring allowance. For the 5 ½ month period April through September 2022, the CEO role was vacant, resulting in a cost savings of approximately $110,000. In May 2021, there was a transition in the CFO role, which resulted in two individuals managing the accounting and finance role in the Company. During the 2022 year, one individual managed these areas, leading to a reduction of approximately $95,000 in compensation costs. The relatively lower headcount throughout 2022 reduced premiums for extended health benefits and fringe benefits by a further $34,000 in comparison to the 2021 amount.

Professional and consulting fees for the year ended December 31, 2022 were $232,000 lower than the previous year. Legal fee expenses fell by approximately $320,000 year over year. During 2021, extensive legal consultations took place throughout the year, including meetings to determine the structure, timing and manner to recapitalize the Company, development of a term sheet and placement agreement suitable to the major parties involved, along with advice and direction on managing the legal and regulatory aspects of the deferred compensation payout. Legal advisors were also in attendance at all Board of Directors meetings during the 2021 year end. Legal expenses that specifically related to share issuance costs totalled $190,000 in 2022, and are instead captured on the balance sheet as a component of share capital. General consulting fees increased year over year by approximately $80,000, which included amounts due to the Company's former CEO for ongoing assistance and transition support. Other professional fees, such as audit and tax compliance fees, increased about $8,000, comprising the remaining difference.

Costs savings were also achieved when the compensation strategy for the Board of Directors was realigned in January 2022. Directors' fees in 2022 totalled $267,000, a reduction of $171,000 from the 2021 amount. As described earlier, changes in compensation, such as removing annual fees for chairing committees and removing fees paid per meeting, reduced the annual outflow payable to directors.

Investor relations and regulatory expenses decreased by $15,000 when comparing the 2022 to the 2021 year end. The annual general meeting was rescheduled several times in 2021, which cause a duplication of expenditures totalling $30,000. These cost reductions were counterbalanced by increases in transfer agent fees, TSX Venture Exchange sustaining capital fees and insider filing fees incurred during the year ended December 31, 2022.

In 2020 and 2021, most business travel, along with nearly all in person meetings and events were cancelled due to the COVID-19 pandemic. As we moved through 2022, travel and business development recommenced, resulting in an increase of $18,000 year over year. Changes in rent, insurance and office expenses were not significantly different year over year.

Market Opportunity

The Company believes that market, political, social and regulatory forces, favouring the adoption of our technology, are intensifying, as industry and various levels of government respond and position the country for a net zero goal by 2050. Widely accepted science-based studies describe the importance of moving to a carbon neutral society and the challenges of moving fast enough to achieve 2050 targets. Oil sands companies have been proactively adopting more sustainable and environmentally friendly approaches, including collaborative efforts, such as their Pathways Alliance, as they seek to demonstrate their commitment to reducing their environmental footprint.

Based on our research, pilot programs and studies, key economic drivers that support the adoption of CVW CleanTech's technology include: the commodity value of recovered bitumen and solvents currently lost to tailings ponds; the value of recovered critical minerals like zircon and titanium products; the value of emissions abatement 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 acid rock drainage mitigation. In addition, our studies suggest that tailings that have been processed through the CVW™ technology dewater more effectively in subsequent tailings management operations 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.

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. This legislation has been in place since 2017 and requires oil sands mining operators to minimize fluid tailings accumulation through ongoing treatment and progressive reclamation. Technologies such as CVW™ can help reduce the volume of tailings and assist in reaching the ready to reclaim criteria outlined in Directive 85.

In particular, the Company's technology has the potential to address a number of aspects of the AER's Directive 85 sub-objective 2 by mitigating risks associated with treated froth fluid fine tailings.

The Government of Canada, in its announcements at the end of March 2022, provided guidelines to address climate change for various sectors of the economy, with stringent targets for the oil and gas sector. In particular, the current federal government has set targets for the oil and gas industry in Canada to reduce its GHG emissions by 42% of 2019 levels by 2030.[1] The federal government has established a number of mechanisms to support the transition to cleaner energy, including up 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 teach which reduces the environmental footprint of current production, utilizing new technologies.

The oil sands industry is taking an active approach in transitioning its operations to greener technologies, including strategies to assist in reducing GHG emissions. In particular, the members of the Pathways Alliance 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. The commitment by the consortium to achieve net zero greenhouse gas emissions aligns directly with the benefits that can be provided by our technology.

Additional government initiatives which may be favorable to the commercialization of our technology include the Canadian Minerals and Metals Plan ("CMMP"), which aims to position Canada as a global supplier for strategic and critical minerals. The Province of Alberta introduced a similar strategy and action plan with legislation in November 2021. Alberta's Bill 82 aligns the province's mineral development policies with the CMMP. These critical minerals and rare earths, which include zircon and titanium, are seen as vital to make the transition to net zero.

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. There is real optimism that CVW CleanTech, other clean technology companies, along with industry partners and government can collaborate to meaningfully address climate change.

Financial Instruments and Financial Risk Factors

The Company has, for accounting purposes, designated its cash and cash equivalents and accounts receivable as loans and receivables. Accounts payable and accrued liabilities, along with the deferred compensation liability, are classified for accounting purposes as other financial liabilities.

As of December 31, 2022 and 2021, 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.

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. The Board of Directors also provides guidance for enterprise risk management.

b. 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 recovery of project costs and related holdbacks and receivables. Cash and cash equivalents are held with major Canadian financial institutions with a credit rating of Aa or higher. Management believes that the credit risk concentration with respect to cash is minimal. The recovery of project costs is dependent on the Company meeting milestone obligations under contribution agreements. Management believes that credit risk associated with funding commitments from parties such as Emissions Reduction Alberta and Natural Resources Canada is low due to the project governance, credit quality of participants, reporting requirements to achieve milestones and the fact that all associated contributions have been collected previously.

c. 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 by monitoring actual and projected cash flows. The Board of Directors reviews and approves the operating plan as well as any material transactions outside the ordinary course of business.

This oversight process is also supplemented by a continuous and detailed cash forecasting process. The Company is dependent on raising funds through the issuance of shares, loan facilities, government grants and/or attracting partners to undertake further development and commercialization of its technology. As at December 31, 2022, the Company had an aggregate cash balance of $6,958,336 (December 31, 2021: $407,782) to settle current cash liabilities of $326,856 (December 31, 2021: $346,943). Most of the Company's financial liabilities have contractual terms of 30 days or less.

d. 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. CVW Cleantech has no current liabilities that are subject to interest rate risk. The balance of cash and cash equivalents are exclusively denominated in Canadian dollars.

i. 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 major Canadian financial institutions with a credit rating of Aa or higher. The Company periodically monitors its cash equivalent investments and the creditworthiness of the banks it holds investments in.

ii. Foreign exchange currency risk

The Company's reporting and functional currency is the Canadian dollar and most purchases are transacted in Canadian dollars. Any impact on the Company's existing financial instruments due to foreign exchange rate fluctuations are not expected to be of significance. The Company does not presently enter into hedge instruments in respect of its foreign currency exchange risk.

e. Capital management

The Company considers its shareholders' equity as its capital. At December 31, 2022 the Company had shareholders' equity of $6,741,809 (December 31, 2021 - shareholders' equity deficit of $881,685). The Company does not have any bank debt or externally imposed capital requirements. The Company's capital management objectives are to manage its cash and cash equivalents prudently; to minimize expenditures on general and administrative costs to ensure funds are available to continue to advance the commercialization of CVW™ projects; and to access available government funding for research, development and commercialization. Management reviews its capital management approach on an ongoing basis and believes that its current approach, given the relative size and stage of the Company, is appropriate.

Related Party Transactions

Key management personnel include those persons having authority and responsibility for planning, directing and controlling the activities of CVW CleanTech as a whole. Compensation to directors and officers of the Company for the three and twelve month periods ended December 31 is summarized below.

Corporate Officers	Three months December 31, 2022	Three months December 31, 2021	Twelve months December 31, 2022	Twelve months December 31, 2021
Compensation and benefits	486,000	187,000	1,359,000	1,196,000
Stock-based compensation	576,000	9,000	824,000	73,000
	$ 1,062,000	$ 196,000	$ 2,183,000	$ 1,269,000

Board of Directors	Three months December 31, 2022	Three months December 31, 2021	Twelve months December 31, 2022	Twelve months December 31, 2021
Director's fees	44,000	202,000	267,000	437,000
Stock-based compensation	-	3,000	1,286,000	28,000
	$ 44,000	$ 205,000	$ 1,553,000	$ 465,000

Accounts payable and accrued liabilities at December 31, 2022 included $61,000 due to directors and officers in respect of the transactions identified above (December 31, 2021: $18,000).

At December 31, 2021 $1,169,000 was payable to directors and officers, most of which was comprised of the deferred compensation liability, as described in the December 31, 2021 financial statements.

One member of the Board of Directors is a partner in a law firm which provides legal services to the Company. Legal fees charged by this law firm for the year 2022 were $256,000. Of this amount, $132,000 is captured on the balance sheet, within equity issue costs, and the remainder is included within consulting and professional fees. There are no comparative amounts for 2021, as this individual was not a director of the Company until January 2022.

In October 2022, the Company completed a private placement of equity units, raising gross cash proceeds of $1.4 million. The Company's CEO participated in the offering, at the same terms as other arm's length parties.

A retention bonus payable to two Corporate Officers, for $100,000 each, is included in the December 31, 2022 liabilities of CVW CleanTech. This commitment was agreed to as part of the terms of the January 2022 private placement. There remains a commitment to pay $100,000 to a Corporate Officer on December 31, 2023, to the extent they are still employed by the Company at that time.

In March 2022, the previous CEO announced his retirement, effective March 31, 2022. Under the terms of a consulting agreement that commenced April 1, 2022, a Company controlled by him will continue to provide services to the Company at an annual fee of $115,000 per annum. The contract is in place until February 2025.

Off Balance Sheet Arrangements

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

Additional Disclosure for Venture Issuers Without Significant Revenue

During the years ended December 31, 2022 and 2021, CVW CleanTech has not capitalized any research and development costs. All amounts that have been expensed as general and administrative expenses, along with research and development costs are disclosed in the Company's annual financial statements and in this MD&A. The Company has not established any deferred development costs and has not incurred any costs related to exploration activities.

Discussion of Risks

Current and prospective shareholders should specifically consider various risk factors, including, but not limited to, the risks outlined below. Should one or more of these risks or uncertainties, including the risks listed below, or a risk that is not currently known to us materialize, or should assumptions underlying those forward-looking statements prove incorrect, actual results may vary materially from those described herein.

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 cannot guarantee that we will be able to leverage our relationships with oil sands mining operators or that commodity prices will support the capital expenditures required by oil sands mining operators for the implementation and development of our CVW™ technology. We may not be able to proceed past the engineering phase with oil sands mining operators to develop a commercial project. We may not be able to raise the financing required to fund the development of our project. If we experience significant cost overruns on our programs, or if our business plan is costlier than we anticipate, certain 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. Average price for West Texas Intermediate oil ("WTI") was $76 US per barrel in December 2022.

The invasion of the Ukraine by Russia in the first quarter of 2022 has constrained oil supplies, created uncertainty in global markets and resulted in higher market prices for much of 2022. Forecast prices for WTI and the outlook for the next two years remains stable.[2] The COVID-19 pandemic is not causing major disruptions to business in Canada, the effect of the pandemic on global supply chains has not fully resolved. The effects of the pandemic seem to be lingering, causing shortages in available labour in some sectors of the economy. Excluding energy, the annual average Consumer Price Index rose 5.7% in 2022 compared with 2.4% in 2021. This rate of increase is the highest in the past 40 years.[3]

The Bank of Canada has undertaken a steady program of benchmark interest rate increase since March 2022 in its efforts to reduce inflationary pressures. The federal government seeks to manage domestic inflation through monetary policy, primarily by increasing interest rates in the economy. The overnight rate was 0.25% from March 2020 through to March 2022; a series of increases in the intervening period have resulted in the overnight rate reaching 4.5% by January 25, 2023. The rate has remained at 4.5% to April 2023. The length of these trends and the impact of these events could adversely affect the Company's ability to move its CVW™ technologies to a commercial stage of development. Concerns over COVID-19, commodity pricing, fluctuations in interest rates and foreign exchange rates, stock market volatility, geopolitical issues, OPEC+ actions, inflation, the availability and cost of credit, the volatility of major stock exchanges, the slower 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. 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. Volatility in global and Canadian markets may continue to affect the petroleum industry, including oil sands mining operators, which in turn could affect the ability of the Company to continue with the next phase commercial development. As a result, the next stages of development may not move forward or there may be significant or costly changes or delays in reaching the commercial objectives.

We are dependent upon oil sands mining operators to adopt and integrate our CVW™ technology in their oil sands mining operations.

Our success depends on the willingness and capacity of oil sands mining operators to adopt and integrate our CVW™ technology into their own oil sands mining operations. For oil sands mining operators to adopt and implement our CVW™ technology, we will have to negotiate commercial terms for the implementation of these technologies. This will require the interest and cooperation of the oil sands mining operators.

The cost and complexity of integrating our CVW™ technology is uncertain and will vary depending on the site and the objectives of each oil sands mining operator. We can offer no guarantee we will be able to conclude such commercial negotiations on reasonable terms or at all. Additionally, dramatic changes and volatile commodity prices and other recent global events, such as the invasion of the Ukraine by Russia, may delay or cause revisions in oil sands mining operators' capital programs. This could result in delays or resistance to, adopting the Company's CVW™ technology.

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

The success CVW CleanTech has had to date progressing its technologies ahead does not guarantee that an oil sands mining operator will proceed with a subsequent Engineering Procurement and Construction ("EPC") phase or the future commissioning of the Company's CVW™ technology.

When the Company moves into the EPC phase, additional capital will be required. These funds may come through the issuance of securities, debt, new or additional government grants, alternative financing sources, and/or partnership or joint venture arrangements 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 or 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™ technology. As such, there is still uncertainty and risk that our CVW™ technology will not be adopted on a commercial scale.

While the Company continues to negotiate with several oil sands mining operators, investment decisions are expected to be undertaken on a year-by-year basis and a final investment decision with respect to commercialization is uncertain at this time. There remains the potential for delay based upon the state of the global economy, global crude oil prices and public health concerns, including those relating to COVID-19.

Crude oil and bitumen price fluctuations are beyond our control and may affect the ability and willingness of oil sands mining operators to evaluate our CVW™ technology 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 mining operators to adopt and integrate our CVW™ technology in existing or new oil sands mining projects and on the economics, operating results, financial conditions and profitability of any commercial projects involving our CVW™ technology.

The financial condition, operating results and future growth of oil sands mining operators 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 mining operators.

Global crude oil prices may remain volatile for the near future because of market uncertainties over the supply and demand of these commodities. Supply and demand may swing dramatically based upon the state of the world economy, shale oil production in the United States, OPEC+ actions, political uncertainties, changes in global supply and demand due to the war between the Ukraine and Russia, sanctions imposed on certain oil producing nations by other countries, conflicts in the Middle East and ongoing credit and liquidity concerns, among other factors.

In February 2022, Russian military forces invaded Ukraine. Since this time, Ukrainian military personnel and civilians have continued to actively resist the invasion. The outcome of the conflict is uncertain. There have been wide-ranging consequences on the peace and stability of the region and the world economy. Certain countries including Canada and the United States, have imposed strict financial and trade sanctions against Russia, which may have further effects on the global economy. The European Union has historically relied upon Russia for its natural gas requirements. The disruption in supply brought about reduced natural gas shipments by Russia on the Nord Stream pipeline has led to volatile pricing. A supply-demand gap in 2023 could cause further price instability in the region and impact worldwide pricing. The long-term impacts of this conflict, the related sanctions and retaliatory measures taken by Russia, remain uncertain.

Inflation may disrupt disrupting the Company's ability to secure necessary services and equipment for the expected price, on the expected timeline, or at all.

The Company's operating and development costs could escalate and become uncompetitive due to supply chain disruptions, inflationary cost pressures, equipment limitations, escalating supply costs, commodity prices, and additional government intervention through stimulus spending or additional regulations. The Company's inability to manage costs may impact future development decisions, which could have a material adverse effect on its financial performance and cash flows.

The cost or availability of specialized industrial equipment for oil sands mining operations may adversely affect the Company's ability to undertake development and construction projects. A failure to secure the services and equipment necessary to the Company's operations for the expected price, on the expected timeline, or at all, may have an adverse effect on the Company's financial performance and cash flows.

In response to inflation in the Canadian economy, the Bank of Canada has undertaken a series of benchmark interest rate increases, moving from 0.5% in March 2022 to 4.5% by January 2023. These rate increases may impact the available capital required to fund future CVW™ projects or could constrain credit available to our future commercial partners. These constraints could cause delays or cancellations.

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 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.

CVW CleanTech expects to rely on funding commitments from the Governments of Canada and Alberta to pay part of the project costs associated with the first implementation of CVW CleanTech 's Creating Value from Waste™ clean technology, the availability of which cannot be assured.

To secure ongoing and future government funding commitments, 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 costs will be subject to the satisfaction of several conditions, including the successful completion of other government funding programs, CVW CleanTech 's compliance with the other terms and conditions of the government funding agreements and within the time periods required, and CVW CleanTech securing, within certain prescribed time periods, the remaining funding. Given the need to first secure satisfactory commercial arrangements with an oil sands mining operator to adopt and integrate our CVW™ technology, CVW CleanTech 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 CVW™ 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 the Company will be able to satisfy other conditions necessary to receive payment for eligible costs.

If the government funding commitments are not available, the Company may be required to raise additional capital through the issuance of securities, loans, through new or additional government grants and/or a 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 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 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.

The breadth and complexity of changes to Canadian federal and provincial environmental laws make it difficult for oil sands mining operators to predict the potential financial impacts of these changes to their operations, which may affect the timing and willingness of oil sands mining operators to evaluate our CVW™ technology 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 regulators that affect oil sands mining developments, including changes relating to such issues as tailings management, water use, air emissions and land use. The breadth and complexity of these changes and proposed changes make it difficult for oil sands mining operators to predict the potential financial impacts of these changes on them and their operations. Because it is not currently possible to predict the nature of any future requirements or the impact on oil sands mining operators and their business, financial condition, results of operations and cash flow, oil sands mining operators may be unwilling to evaluate our CVW™ technology or proceed past the engineering design phase and enter into commercial projects with us until these uncertainties and risks are better understood.

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™ technology, 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™ technology.

As our CVW™ technology has the potential to replace existing methods of dealing with froth treatment tailings, competition for our process will come from current oil sands mining operators, 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 mining operators 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 and subsequent optimization and validation 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™ technology. These organizations, including the oil sands mining operators themselves, have substantial financial resources, research and development capabilities, and other resources, which give them significant competitive advantages over us.

The CVW^{TM} technology 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 optimization and validation. The CVW^{TM} technology is a new technology and consequently we have no experience operating on a large-scale commercial basis. As such, the recovery of bitumen, critical minerals, solvents and water in commercial projects and the environmental impacts of using the CVW^{TM} technology involves uncertainty. There can be no assurance that the Company's CVW^{TM} technology will recover bitumen, critical minerals, solvents and water at the expected levels, with the expected environmental benefits and/or capital and operating costs or on the expected schedule.

We are dependent on the composition of froth treatment tailings for 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^{TM} technology 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, critical minerals, solvent and water that may be recovered from froth treatment tailings using the CVW^{TM} technology 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, solvents and critical minerals, and the composition of such critical 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™ technology 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 mining operations. Risks include failures in the specification, design or technology selection; determining and agreeing upon a scope for the facilities; building the facilities 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 there is no certainty around the Company's ability 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 mining 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™ technology. 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 mining 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 mining operators' froth tailings volumes, over which the Company has no control.

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

The prospects for commercializing the CVW™ technology, 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 levels on the production of natural resources from lands in which it owns the mineral rights, including lands with new and existing oil sands mining projects. The Government of Alberta may not implement a fiscal regime for minerals and bitumen from oil sands tailings that incentivizes oil sands mining 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 oil sands mining operators. In addition, the Company may not be successful in obtaining Alberta or Federal fiscal incentives as part of the commercialization process.

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 a significant portion of our revenue to be based upon US dollar rates for oil-based commodities. We expect that most of our operating expenses and capital expenditures will be incurred 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.

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. Such cyber-security threats include unauthorized access to information technology systems due to hacking, viruses 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.

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

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.

There are operational hazards involved in the CVW™ technology.

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.

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 judgements that affect the amounts reported in the financial statements and accompanying notes. These estimates and judgements are re-evaluated regularly, based upon historical experience and other factors, including expectations of future events, as 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 be those where critical accounting policies affect the significant estimates and judgements used in the preparation of the Company's financial statements.

Government assistance

Agreements for government assistance contain many conditions prior to cash amounts being advanced. Some agreements provide a proportion of expenditures to be reimbursed, while others provide funding in advance of expenditures. Estimates about the timing of these expenditures and the dollar value involved are required. In addition, most government assistance contracts allow the funding agency to withhold a portion of funds until certain events occur. Determining the timing of these events, to reach reasonable assurance about the timing and amount to be collected from the funding agency, requires significant judgement.

Stock-based compensation

The compensation cost for stock options with time based vesting is based upon the estimated fair value of those instruments at the time of the grant using the Black-Scholes option pricing model. The compensation cost for stock options with market and non market based performance criteria is based upon estimated fair value of those instruments at the time of grant using Monte Carlo simulations.

Measurement inputs to the Black-Scholes model and the Monte Carlo simulations include the share price on measurement date, exercise price, expected volatility, expected life, expected dividends and the risk-free interest rate. Significant estimates and assumptions are used in determining the expected volatility rate. Changes to the input assumptions could have a significant impact on the amounts recognized for equity based compensation.

Where a stock option grant includes non market performance criteria as a vesting condition, the number of awards expected to vest is considered at each reporting date. Significant judgement is used to determine the likelihood the specific performance condition will be achieved.

Warrants

The value attributed to warrants is estimated at the grant date using the Black Scholes option pricing model. Measurement inputs to the Black Scholes model include the share price on grant date, exercise price, expected volatility, expected life, expected dividends and the risk free interest rate for the expected life of the warrant. Significant estimates and assumptions are used in determining the expected volatility and expected life. Changes to the input assumptions could have a significant impact on the value attributed to warrants.

Internally generated intangible assets and research and development expenditures

Research activities, such as pilot projects, and related development costs which are undertaken to commercialize CVW™ Technologies, are expensed as incurred. Significant judgement is required to determine when costs meet the criteria for recognition as an intangible asset. To date, no project costs have been capitalized nor met the criteria to be classified as internally generated intangible assets.

Outstanding Share Data

Outstanding Share Data - as of April 20, 2023	
Common shares issued and outstanding:	124,116,063
Common share awards granted and outstanding:	
Options	7,585,000
RSUs	741,248
DSUs	1,018,811
Total outstanding common share awards:	9,345,059
Number of warrants outstanding:	12,074,164

Forward looking information or statements and cautionary factors that may affect future results

Certain statements contained in the following MD&A constitute forward-looking statements (within the meaning of the Canadian securities legislation and the U.S. Private Securities Litigation Reform Act of 1995) that involve risks and uncertainties. Forward-looking statements are frequently, but not always, identified by words such as “expects”, “anticipates”, “believes”, “intends”, “estimates”, “potential”, “possible” and similar expressions, or statements that events, conditions or results “will”, “may”, “could” or “should” occur or be achieved. The forward-looking statements may include statements regarding the anticipated benefits of the adoption of CVW technologies, including the results of the adoption thereof, potential diversification strategies and the implementation thereof, expectations regarding future development, funding (including necessity and sources of the same) and contracted work, expectation as to the timeline on which certain performance criteria will be met, expectations regarding the key economic drivers supporting the adoption of CVW CleanTech’s technology, of CVW's research and development and commercialization plans under the heading, the advantages of the Company's technology, the timing expectations for completion of the optimization and validation engineering project activities; the scope of activities that will be undertaken, the Company's ongoing engagement with stakeholders; the Company's ongoing evaluation of financing opportunities, including grant and financing opportunities from applicable government programs and entering into funding agreements related thereto; the expected next steps for the Company, timelines, strategic plans, market price of commodities or other statements that are not statement of fact. Forward-looking statements are statements about the future and are inherently uncertain, and actual achievements of the Company may differ materially from those reflected in forward-looking statements due to a variety of risks, uncertainties and other factors. For the reasons set forth above, investors should not place undue reliance on forward-looking statements. Important factors that could cause actual results to differ materially from the Company’s expectations include uncertainties involved in disputes and litigation, fluctuations in interest rates, commodity prices and currency exchange rates; changes in the availability, and cost, of technical labour required for our Project; price escalation and/ or inflationary pressures affecting the cost of equipment and material required to commercialize the Project; the uncertainty of estimates of capital and operating costs; the need to obtain additional financing and uncertainty as to the availability and terms of future financing; the duration and full impact of COVID-19; the impact on the Company of increasing inflation;

and other risks and uncertainties disclosed in other information released by the Company from time to time and filed with the appropriate regulatory agencies.

All forward looking statements are based on the Company's beliefs and assumptions which are based on information available at the time these assumptions are made. In addition to other assumptions as set out in this MD&A, the Company has made the following assumptions in relation to the forward-looking statements in this MD&A: the expected environmental and economic benefits to be achieved from CVW™ technologies; the ability of the Company to successfully access various government funding programs; the details of government funding programs and that such programs will be implemented (and not change) as expected; that the Company will continue to be able to protect its intellectual property; that counterparties will continue to satisfy their contractual obligations to the Company; assumptions as to commodity prices and exchange rates and the impacts on the Company; assumptions as to various market and commercial opportunities for the Company and its technologies; and the ability of the Company to continue to develop and commercialize its technologies.

Although management believes that the expectations represented by such forward-looking information or statements are reasonable, there is significant risk that the forward-looking information or statements may not be achieved, and the underlying assumptions thereto will not prove to be accurate.

Actual results or events could differ materially from the plans, intentions and expectations expressed or implied in any forward-looking information or statements, including the underlying assumptions thereto, as a result of numerous risks, uncertainties and factors including: the possibility that opportunities will arise that require more cash than the Company has or can reasonably obtain; dependence on key personnel; dependence on corporate collaborations; potential delays; uncertainties related to early stage of technology and product development; uncertainties as to fluctuation of the stock market; uncertainties as to future expense levels and the possibility of unanticipated costs or expenses or cost overruns; and other risks and uncertainties which may not be described herein. The Company has no policy for updating forward looking information beyond the procedures required under applicable securities laws. The forward-looking statements contained herein are as of April 20, 2023 and are subject to change after this date, and the Company assumes no obligation to publicly update or revise the statements to reflect new events or circumstances, except as may be required pursuant to applicable laws.

[1] Retrieved from Government of Canada website, Emissions Reduction Plan. https://www.canada.ca/en/environment-climate-change/news/2022/03/2030-emissions-reduction-plan--canadas-next-steps-for-clean-air-and-a-strong-economy.html
[2] Retrieved from www.eia.gov on April 5, 2023. WTI December 2022 average price $76 US / barrel. Projected WTI prices range from $69 US barrel to $76 US / barrel for 2023 and 2024.
[3] Retrieved from https://www150.statcan.gc.ca/n1/daily-quotidien/230117/dq230117b-eng.htm Statistics Canada Consumer Price Index, Annual Review, 2022