Consolidated Financial Statements of

Biorem Inc.

December 31, 2021 and 2020

Biorem Inc.

December 31, 2021 and 2020

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Independent Auditor's Report

To the Shareholders of BioRem Inc.:

Opinion

We have audited the consolidated financial statements of BioRem Inc. and its subsidiaries (the "Company"), which comprise the consolidated statements of financial position as at December 31, 2021 and December 31, 2020, and the consolidated statements of operations comprehensive earnings (loss), changes in shareholders' equity and cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as at December 31, 2021 and December 31, 2020, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards.

Basis for Opinion

We conducted our audits in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audits of the consolidated financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

Management is responsible for the other information. The other information comprises Management's Discussion and Analysis.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audits of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audits or otherwise appears to be materially misstated. We obtained Management's Discussion and Analysis prior to the date of this auditor's report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits and significant audit findings, including any significant deficiencies in internal control that we identify during our audits.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

The engagement partner on the audit resulting in this independent auditor's report is Shaila Rani Mehta.

MNP LLP

Mississauga, Ontario	Chartered Professional Accountants
March 28, 2022	Licensed Public Accountants

Biorem Inc.

Consolidated statements of financial position
December 31, 2021 and 2020

In Canadian dollars	Note	2021	2020
		$	$
Assets			
Current assets			
Cash and cash equivalents	**9**	4,471,304	8,869,394
Accounts receivable	**10**	6,506,760	6,322,217
Unbilled revenue	**4**	3,626,819	1,281,619
Inventories	**11**	901,670	944,779
Prepaid expenses and deposits	**12**	658,884	857,251
		16,165,437	18,275,260
Non-current assets			
Equipment and leasehold improvements	**13**	1,145,070	1,415,667
Deferred tax assets	**7**	1,855,547	2,261,956
Total assets		19,166,054	21,952,883
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable		5,065,853	1,808,644
Accrued liabilities	**23**	2,512,982	2,593,508
Lease liabilities	**22**	185,687	217,584
Income taxes payable	**7**	445,831	127,999
Provisions	**14**	490,225	542,112
Unearned revenue	**4**	3,021,251	2,527,825
Interest bearing loans	**16**	1,508,811	-
		13,230,640	7,817,672
Non-current liabilities			
Interest bearing loans	**16**	3,501,189	-
Lease liabilities	**22**	469,916	610,590
		3,971,105	610,590
Shareholders' equity			
Common shares	**17**	4,906,353	17,204,855
Contributed surplus		2,169,648	2,189,248
Accumulated other comprehensive income		597,343	1,136,890
Deficit		(5,709,035)	(7,006,372)
Total shareholders' equity		1,964,309	13,524,621
Total liabilities and shareholders' equity		19,166,054	21,952,883
Contingency	**15**		

onsolidated financial statements.

Approved on behalf of the Board of Directors of Biorem Inc:

"signed" *"signed"*

Biorem Inc.
Consolidated statements of operations
Years ended December 31, 2021 and 2020

In Canadian dollars	Notes	2021	2020
		$	$
Revenue	**4**	24,477,997	24,375,343
Cost of goods sold	**11**	18,241,584	17,358,644
Gross profit		6,236,413	7,016,699
Expenses			
Sales and marketing	**19**	2,097,576	1,961,771
Research and development	**19**	14,223	30,510
General and administration	**19**	1,815,749	2,804,969
Other expense (income)	**6**	238,677	(499,353)
Total operating expenses		4,166,225	4,297,897
Earnings from operations		2,070,188	2,718,802
Finance costs	**22**	35,860	43,712
Earnings before tax		2,034,328	2,675,090
Income tax	**7**	736,991	586,246
Net earnings		1,297,337	2,088,844
Earnings per share, basic	**8**	$ 0.04	$ 0.05
Earnings per share, diluted	**8**	$ 0.04	$ 0.05

See accompanying notes to consolidated financial statements.

Biorem Inc.

Consolidated statements of comprehensive earnings
Years ended December 31, 2021 and 2020

In Canadian dollars	Notes	2021	2020
		$	$
Net earnings		1,297,337	2,088,844
Other comprehensive earnings (loss)			
Item that will be not reclassified into profit:			
Foreign currency translation differences on foreign operations		(539,547)	(308,209)
Total comprehensive earnings		757,790	1,780,635

See accompanying notes to consolidated financial statements.

Biorem Inc.

Consolidated statements of changes in shareholders' equity
Years ended December 31, 2021 and 2020

In Canadian dollars	Notes	Common shares	Contributed surplus	Accumulated other comprehensive income(loss)	Deficit	Total
		$	$	$	$	$
Balance, as at December 31, 2019		17,204,855	2,168,949	1,445,179	(9,095,216)	11,723,767
Earnings for the year		-	-	-	2,088,844	2,088,844
Foreign currency translation differences on foreign operations		-	-	(308,289)	-	(308,289)
Total comprehensive earnings for the year		-	-	(308,289)	2,088,844	1,780,555
Stock-based compensation	**17**	-	20,299	-	-	20,299
		-	20,299	-	-	20,299
Balance, as at December 31, 2020		17,204,855	2,189,248	1,136,890	(7,006,372)	13,524,621
Earnings for the year		-	-	-	1,297,337	1,297,337
Foreign currency translation differences on foreign operations		-	-	(539,547)	-	(539,547)
Total comprehensive earnings for the year		-	-	(539,547)	1,297,337	757,790
Common shares purchased for cancellation	**17**	(12,411,116)	-	-	-	(12,411,116)
Stock options exercised		112,614	(28,039)	-	-	84,575
Stock-based compensation	**18**	-	8,439	-	-	8,439
		(12,298,502)	(19,600)	-	-	(12,318,102)
Balance, as at December 31, 2021		4,906,353	2,169,648	597,343	(5,709,035)	1,964,309

See accompanying notes to the consolidated financial statements

Biorem Inc.

Consolidated statements of cash flows
Years ended December 31, 2021 and 2020

In Canadian dollars	Notes	2021	2020
		$	$
Operating activities			
Net earnings		1,297,337	2,088,844
Adjustments for:			
Deferred tax expense	**7**	381,922	506,458
Depreciation	**13**	343,624	354,463
Stock based compensation	**18**	8,439	20,299
Accretion lease interest	**22**	50,541	50,990
		2,081,863	3,021,054
Change in non-cash operating working capital			
Accounts receivable		(185,626)	(2,637,891)
Unbilled revenue		(2,341,877)	103,761
Inventories		43,110	196,773
Prepaid expenses and deposits		145,267	353,587
Accounts payable		3,251,356	(26,091)
Accrued liabilities		320,748	1,245,045
Income taxes payable		304,250	33,170
Provisions		(80,281)	64,771
Unearned revenue		242,992	989,365
Cash provided by operating activities		3,781,802	3,343,544
Investing activities			
Purchase of equipment, leasehold improvements	**13**	(75,979)	(342,400)
Cash used in investing activities		(75,979)	(342,400)
Financing activities			
Proceeds from operating loan	**16**	1,010,000	-
Proceeds from term loan	**16**	4,000,000	-
Proceeds from issuance common shares on exercise of stock options	**18**	84,575	-
Common shares purchased for cancellation	**17**	(12,411,116)	-
Payment of lease liabilities	**22**	(239,125)	(199,743)
Cash provided by (used in) financing activities		(7,555,666)	(199,743)
Foreign exchange loss on foreign denominated cash and cash equivalents		(548,247)	(401,030)
Increase in cash and cash equivalents		(4,398,090)	2,400,371
Cash and cash equivalents, beginning of year		8,869,394	6,469,023
Cash and cash equivalents, end of year	**9**	4,471,304	8,869,394

See accompanying notes to consolidated financial statements.

1. General information

BIOREM Inc. ("BIOREM" or the "Company") is a company with its head office domiciled in Canada.

The address of BIOREM's registered office is 7496 Wellington Road 34, Puslinch, Ontario. The Company's common shares are listed on the TSX Venture Exchange and trade under the symbol BRM.V. The consolidated financial statements of BIOREM comprise BIOREM and its subsidiaries (together referred to as "the Company"). The Company is primarily involved in the manufacturing of a comprehensive line of high efficiency air pollution control systems that are used to eliminate odorous and harmful contaminants.

2. Basis of presentation

a) Statement of compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The consolidated financial statements were approved by the Board of Directors and authorized for issuance on March 28, 2022.

b) Basis of measurement

These consolidated financial statements have been prepared on the historical cost basis of accounting, with the exception of financial instruments classified as fair value through profit and loss, and share based payments, both of which are measured at fair value.

c) Functional and presentation currency

The functional currency of BIOREM and its subsidiaries is the currency of their primary economic environment. These consolidated financial statements are presented in Canadian dollars, which is BIOREM's functional currency. The functional currency of BIOREM's subsidiary located in the United States is the US dollar and the functional currency of BIOREM's subsidiaries located in China is the Chinese renminbi.

d) Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

i) Critical judgments in applying accounting policies

The following are the critical judgments, apart from those involving estimations, that management has made in the process of applying the Company's accounting policies and that have the most significant effects on the amounts recognized in the consolidated financial statements.

Indicators of impairment

IAS 36, *Impairment of assets*, requires management to assess the carrying values of the Company's non-financial assets, excluding inventory, at each reporting period and determine whether indicators of impairment exist. The determination of the existence of indicators of impairment requires judgment. Management also exercises judgment to determine whether there are factors that would indicate a cash generating unit ("CGU") is impaired. Some indicators of impairment that management may consider include changes in the current and expected future use of the asset, external valuations of the asset, and obsolescence or physical damage to the asset.

2. Basis of presentation (continued)

d) Use of estimates and judgements (continued)

ii) *Key sources of estimation uncertainty*

The following are the key sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing a material adjustment to the consolidated financial statements within the next twelve months.

Estimation of contract costs

The Company recognizes revenue on its construction contracts using the percentage-of-completion method, under which contract revenue is recognized in proportion to the contract costs incurred in relation to the total costs estimated to complete the contract, as indicated in note 3(b). The determination of estimated costs to complete contracts requires management to make estimates regarding future material and labour costs. Differences between actual contract costs incurred and estimated contract costs could materially affect the timing of the recognition of contract revenues.

Determination of useful lives and residual values of long-lived assets

The Company's leasehold improvements and equipment are depreciated or amortized to their residual values over their estimated useful lives as described in note 3(f). On an annual basis, management assesses the estimated useful lives and the residual values of these long-lived assets to determine whether they are still appropriate. In the determination of useful lives, management may consider changes in the current and expected use of the asset, changes to the asset's physical condition, or the acquisition of new assets which render existing assets obsolete. In the determination of residual values, management may consider changes in the asset's physical condition, its anticipated use, and external valuations of the asset. Differences between these estimates and the actual lives and residual values of the Company's long-lived assets could materially affect both the timing and amounts of depreciation and amortization expense.

Provisions

The Company recognizes provisions relating to warranties and termination benefits. As indicated in note 3(i), the determination of the warranty provision is based on historical warranty data, the time-value of money, as well as management's assessment of specific warranty claims, if any. Estimates are also made regarding the timing of the cash outflows relating to any termination benefits and warranty claims. Differences between the timing and amount of estimated expenses relating to these claims could differ materially from the actual expenses incurred.

2. Basis of presentation (continued)

d) Use of estimates and judgements (continued)

Allowances for expected credit losses

An 'expected credit loss' impairment model applies when the Company requires a loss allowance which is recognized based on expected credit losses. This applies to financial assets measured at amortized cost. The estimated present value of future cash flows associated with the asset is determined and an impairment loss is recognized for the difference between this amount and the carrying amount as follows: the carrying amount of the asset is reduced to estimated present value of the future cash flows associated with the asset, discounted at the financial asset's original effective interest rate, either directly or through the use of an allowance account and the resulting loss is recognized in the consolidated statement of operations for the period. In a subsequent period, if the amount of the impairment loss related to financial assets measured at amortized cost decreases, the previously recognized impairment loss is reversed through the consolidated statement of operations to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortized cost would have been had the impairment not been recognized. The assumptions used for this estimate, which are based on the Company's historical collection history, are presented in Note 10.

Determination of Stock-based compensation

The estimation of share-based payment costs requires the selection of an appropriate valuation model and consideration as to the inputs necessary for the valuation model chosen. The model used by the Company is the Black-Scholes valuation model at the date of the grant. The Company has made estimates to the volatility, the probable life of the stock options granted and the time of exercise of those stock options. The expected volatility is based on the Company's historical volatility over the same time period of the expected life of the stock options. The expected life of the stock options is based on historical data. These estimates may not necessarily be indicative of future actual patterns.

Income taxes

Provisions for taxes are made using the best estimate of the amount expected to be paid based on a qualitative assessment of all relevant factors. The Company reviews the adequacy of these provisions at the end of the reporting period. However, it is possible that at some future date an additional liability could result from audits by taxing authorities. Where the final outcome of these tax-related matters is different from the amounts that were initially recorded, such differences will affect the tax provisions in the period in which such determination is made.

Deferred income taxes

Management uses estimates when determining deferred income tax assets. These estimates are used to determine the recoverability of non-capital tax loss carry forward and other tax amounts. Significant judgment is required to determine the probable future cash flows in order to recognize the deferred tax assets. Changes in market conditions, changes in tax legislation, and other factors, could adversely affect the ongoing value of deferred tax assets. The carrying amount of deferred income tax assets is reassessed at each reporting period and reduced to the extent that it is no longer probable that sufficient taxable income will be available to utilize all or part of the deferred income tax assets. Unrecognized deferred income tax assets are reassessed at each reporting period and are recognized to the extent that it is probable that there will be sufficient taxable income for the asset to be recovered.

2. Basis of presentation (continued)

d) Use of estimates and judgements (continued)

Impact of COVID-19 Pandemic

The worldwide outbreak of the COVID-19 virus and the public health measures implemented to contain it have not had a significant financial impact on Company operations to date. Management implemented work from home protocols and restricted all unnecessary travel. Management continues to monitor and assess ongoing developments and respond accordingly.

At this time, it is unknown the extent of the impact the COVID-19 outbreak may have on the Company as this will depend on future developments that are highly uncertain and that cannot be predicted with confidence. These uncertainties arise from the inability to predict the occurrence and veracity of new variants and the duration of their outbreaks, including the duration of travel restrictions, business closures or disruptions, and quarantine/isolation measures that may be put, in place by Canada and other countries to fight the virus. While the extent of the impact is unknown, we anticipate this outbreak may cause supply chain disruptions, staff shortages, and increased material and shipping costs, all of which may impact the Company's business and financial condition.

3. Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements, unless otherwise indicated. The accounting policies have been consistently applied by the Company's subsidiaries.

a) Basis of consolidation

Subsidiaries are entities controlled by the Company. The financial statements of subsidiaries (which are wholly owned by the Company) are included in the consolidated financial statements from the date that control commences until the date that control ceases. Accordingly, the consolidated financial statements include the accounts of Biorem Technologies Inc., Biorem Environmental Inc., Biorem Environmental (US) Ltd., Biorem Hong Kong, Biorem (Beijing) Environmental Technologies Company Limited, Biorem Wuhu Environmental Technology Ltd. and Tianjin Biqing Environmental Technology Co., Ltd in addition to those of BIOREM. All significant inter-company transactions and balances have been eliminated.

b) Revenue recognition

The Company generates revenues from the sale of standard products, from construction projects for specialized products and from services for repairs and maintenance.

Under IFRS 15 revenue is recognized based on the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, IFRS 15 includes a 5-step approach to revenue recognition:

Step 1: Identify the contract(s) with a customer
Step 2: Identify the performance obligations in the contract
Step 3: Determine the transaction price
Step 4: Allocate the transaction price to the performance obligations in the contract
Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation

Revenue is measured at the fair value of the consideration received or receivable, net of returns and trade discounts.

3. Significant accounting policies (continued)

b) Revenue recognition continued

i) Standard products

Revenue for standard products is recognized when persuasive evidence of an arrangement exists, usually in the form of an executed sales agreement, the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs and possible return of products can be estimated reliably, there is no continuing management involvement with the products, and the amount of revenue can be measured reliably. The timing of the transfers of risks and rewards of ownership varies depending on the individual terms of the contract of sale but are primarily on the delivery of the product to the end user.

ii) Construction contracts

The Company derives revenue from construction contracts which require performance over a time span which may extend beyond one or more accounting periods. The Company recognizes revenue on construction contracts using the percentage-of-completion method, based on costs incurred relative to the estimated total contract costs.

Contract revenue includes the initial amount agreed in the contract plus any variations in contract estimated reliably. Contract revenue is recognized in profit or loss in proportion to the stage of completion of the contract. Contract costs are expensed as incurred. Contract costs include all amounts that relate directly to the specific contract, are attributable to contract activity, and are specifically chargeable to the customer under the terms of the contract.

Measure of anticipated revenues and determination of progress

Under IFRS 15, the amount of anticipated revenue used when determining the amount of revenue to be recognized must be based on contracts with legally enforceable rights and obligations.

IFRS 15 requires that assurance-type warranty costs be excluded from the measure of progress of projects for which revenue is recognized over time using a cost input method.

The stage of completion of a contract is determined by reference to actual costs of work performed and estimates of remaining work to be completed. When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized only to the extent of contract costs incurred that are likely to be recoverable. An expected loss on a contract is recognized immediately in profit or loss.

On an ongoing basis, the estimated total costs for construction contracts are revised based on the information available at the end of the reporting period. Changes in estimated total costs are reflected in the percentage of completion calculation of applicable projects in the same period as the change in estimate occurs.

Unbilled revenue represents revenue earned in excess of amounts billed on uncompleted contracts.

Unearned revenue represents the excess of amounts billed to customers over revenue earned on uncompleted contracts.

Change orders and claims

Change orders and claims, referred to as contract modifications are accounted for under IFRS 15, based, among other factors, on the fact that the contract modification is approved and it is highly probable that a significant reversal in the amount of cumulative revenue recognized on such contract modifications will not occur when the uncertainty is subsequently resolved.

3. Significant accounting policies (continued)

b) Revenue recognition continued

iii) Services

Revenue relating to services rendered is recognized in profit or loss when the service is provided.

Under IFRS 15, an entity recognizes revenue as a performance obligation is satisfied, for standard products, construction contracts and services. i.e. when control of the goods or services underlying the particular performance obligation is transferred to the customer.

c) Foreign currency

i) Foreign currency transactions

Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated into Canadian dollars at rates of exchange in effect at that date. Non-monetary assets and liabilities arising from transactions denominated in foreign currencies are translated at the historical exchange rate. Revenues and expenses denominated in a foreign currency are translated at the monthly average exchange rate which approximates the historical exchange rate on the date of the transaction. Adjustments to the Canadian dollar equivalent of foreign denominated monetary assets and liabilities due to the impact of exchange rate changes are recognized in other income in the statement of operations at each reporting period.

ii) Foreign operations

On consolidation, assets and liabilities of BIOREM's subsidiaries are translated into the Canadian dollar at the exchange rate on the reporting date. The income and expenses of foreign operations are translated to Canadian dollars using average exchange rates for the month during which the transactions occurred. Foreign currency differences arising on the translation of foreign operations are recognized and presented in other comprehensive earnings (loss).

3. Significant accounting policies (continued)

d) Financial instruments

Classification

Under IFRS 9 the Company determines the classification of financial instruments based on the following categories:

1. Measured at amortized cost
2. Measured at fair value through profit or loss (FVTPL)
3. Measured at fair value through other comprehensive income (FVOCI)

The classification under IFRS 9 is based on the business model under which a financial asset is managed and on its contractual cash flow characteristics. Assets held for the collection of contractual cash flows and for which those cash flows correspond solely to principal repayments and interest payments are measured at amortized cost. Contracts with embedded derivatives where the host is a financial instrument in the scope of the standard will be assessed as a whole for classification.

A financial asset is measured at amortized cost if both of the following criteria are met:

1. Held within a business model whose objective is to hold assets to collect contractual cash flows; and
2. Contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial liabilities are measured at amortized cost unless they must be measured at FVTPL (such as derivatives), or if the Company has chosen to evaluate them at FVTPL.

Management has assessed the classification and measurement of our financial instruments under IFRS 9.

Financial Instrument	Classification
Cash and cash equivalents	Amortized cost
Accounts receivable, excluding HST/VAT	Amortized cost
Accounts payable, excluding HST/VAT	Amortized cost
Accrued liabilities	Amortized cost
Provisions	Amortized cost
Loans	Amortized cost
Lease receivables	Amortized cost

3. Significant accounting policies (continued)

d) Financial instruments (continued)

Measurement

Initial recognition – A financial asset or financial liability is initially recorded at its fair value, which is typically the transaction price, plus or minus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability. In the event that fair value is determined to be different from the transaction price, and that fair value is evidenced by a quoted price in an active market for an identical asset or liability or is based on a valuation technique that uses only data from observable markets, then the difference between fair value and transaction price is recognized as a gain or loss at the time of initial recognition.

Amortized cost – The amount at which a financial asset or financial liability is measured at initial recognition minus the principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount and, for financial assets, adjusted for any expected credit losses. The effective interest method is a method of calculating the amortized cost of a financial asset or liability and of allocating interest and any transaction costs over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts or payments through the expected life of the financial asset or liability to the net carrying amount on initial recognition.

Fair value through profit or loss – Changes in fair value after initial recognition, whether realized or not, are recognized through the consolidated statements of operations. Income arising in the form of interest, dividends, or similar, is recognized through the consolidated statements of operations when the right to receive payment is established, the economic benefits will flow to the Company, and the amount can be measured reliably.

Fair value through other comprehensive income – Changes in fair value after initial recognition, whether realized or not, are recognized through other comprehensive income. Income arising in the form of interest, dividends, or similar, is recognized through the consolidated statements of net loss and comprehensive loss when the right to receive payment is established, the economic benefits will flow to the Company, and the amount can be measured reliably.

Impairment

In relation to the impairment of financial assets, IFRS 9 requires an expected credit loss model. The expected credit loss model requires an entity to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition.

The Company has applied the simplified approach to recognize lifetime expected credit losses for its accounts receivable. In general, the Company anticipates that the application of the expected credit loss model of IFRS 9 results in earlier recognition of credit losses for the respective items.

Derecognition

Financial assets – The Company derecognizes a financial asset when the contractual rights to the cash flows from the financial asset have expired or when contractual rights to the cash flows have been transferred. Gains and losses from the derecognition are recognized in the consolidated statements of operations.

Financial liabilities – The Corporation derecognizes a financial liability when the obligation specified in the contract is discharged, canceled or expired. The difference between the carrying amount of the derecognized financial liability and the consideration paid or payable, including non-cash assets transferred or liabilities assumed, is recognized in the consolidated statements of operations.

3. Significant accounting policies (continued)

e) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is based on the weighted average and includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing condition. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses. When circumstances which previously caused inventories to be written down to its net realizable value no longer exist, the previous impairment is reversed.

f) Equipment and leasehold improvements

Equipment and leasehold improvements are measured at cost less accumulated depreciation, applicable government assistance or investment tax credits, and any recognized impairment loss.

Cost includes expenditures that are directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located, and borrowing costs on qualifying assets.

Purchased software that is integral to the functionality of the related equipment is capitalized as part of that equipment.

Depreciation is recognized so as to write off the cost of assets less their residual values over their useful lives on the following bases:

Asset	Basis	Rate
Research and production equipment	Declining balance	20%
Office equipment	Straight-line or declining balance	3 years or 20%
Leasehold improvements	Straight-line	lesser of term of lease and useful life

Depreciation methods, useful lives and residual values are reviewed at each financial year end and adjusted if appropriate.

The gain or loss arising on the disposal or retirement of an asset is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognized in income at the time of disposal.

g) Impairment of non-financial assets

The carrying amounts of the Company’s non-financial assets, other than inventories, are reviewed at each reporting date to determine if there is any indication of impairment. If such indication exists, then the asset’s recoverable amount is estimated. An impairment loss is recognized if the carrying amount of an asset or its related cash generating unit (“CGU”) exceeds its estimated recoverable amount.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU.

The Company’s corporate assets do not generate separate cash inflows and are utilized by more than one CGU. Corporate assets are allocated to CGUs on a reasonable and consistent basis and tested for impairment as part of the testing of the CGU to which the corporate asset is allocated.

Assets that suffer an impairment are tested for possible reversal of the impairment at each reporting date.

3. Significant accounting policies (continued)

h) Leases

At the inception of a contract, to determine if it contains a lease, the Company assesses whether it conveys the right to control and obtain substantially all of the economic benefits of an identified asset, for a period of time, in exchange for consideration. Where a contract contains a lease, the Company recognizes a right-of-use asset and a lease liability at the commencement date of the lease. The right-of-use asset is measured at cost less any accumulated depreciation and impairment losses and may be adjusted for any remeasurement of the lease liability. Cost is the amount of the initial lease liability plus any initial direct costs incurred and any lease payments made at or before the commencement date less any incentives received. The right-of-use assets are included in the cost of property and equipment on the statement of financial position. They are depreciated, in accordance with the Company's existing accounting policy, over the shorter of the term of the lease or the life of the asset. The lease liability is initially measured at the present value of future lease payments discounted at the interest rate implicit in the contract. If the implicit rate cannot be determined, the incremental borrowing rate over a similar term and with similar security for the funds necessary to obtain an asset of similar value in a similar economic environment is used.

The lease payments include fixed payments less any incentives receivable, variable lease payments that depend on an index or rate and amounts expected to be paid under residual value guarantees. Where the lease contains an extension or purchase option, the costs associated with the option are included if it is reasonably expected to be exercised by the Company. Thereafter, the amount of the lease liability is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of the lease liability is remeasured to reflect any modifications to the contract terms. Lease liabilities are presented as a component of debt on the consolidated statement of financial position. The Company has elected not to recognize right-of-use assets and lease liabilities for contracts that have a lease term of 12 months or less or are for the use of low value assets. These contracts are recognized as an expense in the consolidated statement of loss and comprehensive loss in the period the cost is incurred. In addition, for certain asset classes, the Company has elected to treat both lease and non-lease components as a single lease component for the purposes of applying IFRS 16.

i) Provisions

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that the Company will be required to settle that obligation and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. Provisions are determined by discounting the cash flows estimated to settle the obligation at a pre-tax rate that reflects current market assessment of the time value of money and risks specific to the Company. The unwinding of the discount is recognized as finance cost.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

A provision for warranties is recognized when the underlying products or services are sold. The provision is based on historical warranty data and a weighting of all possible outcomes against their associated probabilities.

3. Significant accounting policies (continued)

j) Equity

Common stock issued by the company is classified as equity when there is no contractual obligation to transfer cash or other financial assets to the holder of the shares. Incremental costs directly attributable to the issue or repurchase of equity instruments are recognized in equity, net of tax.

Treasury shares are equity instruments repurchased by the Company which have not been canceled and are deducted from equity on the consolidated balance sheet, irrespective of the objective of the purchase. The Company acquires its own subordinate voting shares on the open market for its share-based payment awards. No gain or loss is recognized in the consolidated statement of earnings on the purchase, sale, issue or cancellation of treasury shares. Consideration paid or received is recognized directly in equity.

Dividends and other distributions to holders of the company’s equity instruments are recognized directly in equity.

k) Stock options

The grant-date fair value of share-based payment awards granted to employees is recognized as an expense, with a corresponding increase in contributed surplus, over the period that the employees unconditionally become entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and non-market vesting conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that meet the related service and non-market performance conditions at the vesting date.

3. Significant accounting policies (continued)

l) Government grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attaching to them and that the grants will be received.

The benefit of a government loan at a below-market rate of interest is treated as a government grant, measured as the difference between proceeds received and the fair value of the loan based on prevailing market interest rates.

Government grants whose primary condition is that the Company should purchase, construct or otherwise acquire non-current assets are treated as a reduction of the plant and equipment costs.

Other government grants are recognized as other income over the periods necessary to correspond with the costs for which they are intended to compensate, on a systematic basis. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Company with no future related costs are recognized in profit or loss in the period in which they become receivable.

m) Finance costs

Finance costs comprise interest expense on borrowings, that are not directly attributable to the acquisition, construction or production of a qualifying asset, and interest on lease obligations and are recognized in profit or loss using the effective interest method.

n) Earnings per share

The Company presents basic and diluted earnings per share data for its common shares. Basic earnings per share is calculated by dividing the earnings attributable to common shareholders of the Company by the weighted average number of common shares outstanding during the period. Diluted earnings per share is determined by adjusting the earnings attributable to common shareholders and the weighted average number of common shares outstanding adjusted for the effects of all potential dilutive potential common shares, which comprise stock options granted. The number of additional shares is calculated by assuming that outstanding share options were exercised and that proceeds from such exercises along with the unamortized stock based compensation were used to acquire common shares at the average market price during the reporting period.

o) Income tax

Income tax expense comprises current and deferred tax. Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantially enacted at the reporting date, and any adjustment to tax payable in respect of previous years. Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized.

p) Operating segments

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief decision maker is responsible for allocating resources and assessing the performance of the operating segments and has been identified as the Senior Leadership Team that makes strategic decisions. The Company operates and reports its results as one operating segment.

q) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and short-term deposits with original maturities of less than three months.

3. Significant accounting policies (continued)

r) Consolidated Statements of cash flows

Cash paid for interest is presented as a financing activity.

s) Investment tax credits

The Company applies for investment tax credits relating to qualified expenditures under available government incentive programs including the Scientific Research and Experimental Development program. The benefit of investment tax credits is recognized when the applicable eligible expenditures generating the investment tax credits are incurred and are recorded as other income. Investment tax credits related to the acquisition of equipment are deducted from the costs of the related assets.

t) Changes in accounting policies

There were no changes in accounting policies during the year and the Company has consistently applied the accounting policies to all periods presented in these consolidated financial statements.

u) Accounting standards and amendments effective in the current year

There were no new accounting standards effective January 1, 2021 that were applicable to the Company.

v) Accounting standards and interpretations not yet adopted

The following standards and interpretations have been issued but are not mandatory for annual reporting periods beginning on January 1, 2021:

• Classification of Liabilities as Current or Non-current Amendments to IAS 1 - Effective period beginning on or after January 1, 2023;

• Property, Plant and Equipment: Proceeds before intended use Amendments to IAS 16 - Effective period beginning on or after January 1, 2022; and

• Annual Improvements to IFRS Standards 2018-2020 - Effective period beginning on or after January 1, 2022.

Based on the assessment performed by management, none of the above noted amendments to the standards and interpretations are expected to have a material impact on the consolidated financial statements of the Company.

4. Revenue

	2021	2020
	$	$
Standard products and services	2,558,456	1,612,768
Construction contracts	21,919,541	22,762,575
	24,477,997	24,375,343

Costs and estimated earnings on uncompleted contracts

	2021	2020
	$	$
Costs incurred on uncompleted contracts	39,616,013	37,863,856
Estimated earnings on uncompleted contracts, net of recognized losses	22,290,649	20,385,999
	61,906,662	58,249,855
Less: billings to date	(61,301,094)	(59,496,061)
	605,568	(1,246,206)
Unbilled revenue	3,626,819	1,281,619
Unearned revenue	(3,021,251)	(2,527,825)
	605,568	(1,246,206)

5. Segmented information

The Company attributes revenues to geographical regions based on the domicile of its customers.

Management has determined that the Company operates in one dominant industry segment, which involves the manufacture and sale of high efficiency air pollution control systems.

The Company's revenue and capital assets breaks down geographically as follows:

	Revenue		Capital assets (1)	
	2021	2020	2021	2020
	$	$	$	$
Canada	11,728,516	8,178,145	603,546	751,746
United States	10,472,663	12,606,151	478,973	515,059
China	1,234,162	3,416,731	62,551	148,862
Other international	1,042,656	174,316	-	-
Total	24,477,997	24,375,343	1,145,070	1,415,667

(1) Includes equipment, leasehold improvements and right-to use assets.

In 2021, eleven customers accounted for 60% of total revenue (2020 – twelve customers accounted for 44% of total revenue). Four customers accounted for 57% of accounts receivable at December 31, 2021 (2020 - four customers accounted for 66%).

6. Other expense (income)

	2021	2020
	$	$
Foreign exchange loss (gain)	263,677	(157,641)
Government funding	(25,000)	(341,712)
	238,677	(499,353)

Government Funding

Investment tax credits

The Company is eligible for Federal investment tax credits at a rate of 20% of qualifying scientific research and experimental development expenditures conducted in Canada, in addition to investment tax credits or deductions available from provincial jurisdictions. Federal investment tax credits are only available to the Company to be applied against future income taxes payable.

CEWS wage subsidy

In response to the COVID-19 pandemic the Government of Canada implemented the Canada Emergency Wage Subsidy (CEWS) program that provides a subsidy of 75% of eligible wages. During the twelve months ended December 31, 2021, the Company did not apply for or receive any subsidies. In 2020 the Company applied for and received $295,962 in subsidies from the CEWS program which has been recognized as other income.

7. Income taxes

a) Income tax recognized in net earnings

Income tax expense is comprised of:

	2021	2020
	$	$
Current tax expense	355,069	79,790
Deferred tax expense	381,922	506,456
	736,991	586,246

7. Income taxes (continued)

a) Income tax recognized in net earnings (continued)

	2021	2020
	$	$
Earnings before tax	2,034,328	2,675,088
Expected income tax expense at 26.5% (2020 26.5%)	539,097	708,898
Effect of tax rate differential in foreign operations	1,620	23,035
Effect of expenses that are not deductible in determining taxable profit	6,222	8,826
Book to filing adjustments	115,303	(453)
Tax benefits not recognized	74,749	(154,060)
Income tax expense recognized in net earnings	736,991	586,246

b) Deferred tax assets

The following table summarizes the components of deferred tax:

	2021	2020
	$	$
Tax assets		
Benefit of tax losses to be carried forward	644,473	759,509
Scientific research and experimental development expenditures available in future years	767,505	1,124,329
Provisions not yet deducted for tax	459,879	375,473
Capital assets - difference in accounting book value and undepreciated tax capital cost	(16,310)	2,645
	1,855,547	2,261,956

Deferred taxes are provided as a result of temporary differences that arise due to the differences between the income tax values and the carrying amount of assets and liabilities. Deferred tax assets are not recognized with respect to the operations in China as management considers it not probable that the assets can be recovered.

8. Earnings per share

	2021	2020
Basic earnings per share	$ 0.04	$ 0.05
Calculated as:		
Net earnings	$ 1,297,337	$ 2,088,844
Weighted average number of shares outstanding	35,922,293	38,661,558
Diluted earnings per share	$ 0.04	$ 0.05
Calculated as:		
Diluted earnings	$ 1,297,337	$ 2,088,844
Reconciliation of weighted average diluted shares outstanding:		
Weighted average common shares outstanding	35,922,293	38,661,558
Share options	1,488,485	849,891
Weighted average number of shares outstanding used to calculate diluted earnings per share	37,410,778	39,511,449

9. Cash and cash equivalents

	2021	2020
	$	$
Cash and cash equivalents:		
Cash	4,471,304	8,869,394

10. Accounts receivable

The aging of the trade receivables net of expected credit losses as at December 31 was as follows:

	2021		2020	
	$		$	
0-30 days	4,196,310	64%	3,166,047	49%
31-60 days	1,480,245	23%	1,123,831	17%
61-90 days	126,979	2%	1,171,137	18%
91-120 days	-	0%	79,915	1%
Over 120 days	703,226	11%	781,287	12%
	6,506,760	100%	6,322,217	97%

10. Accounts receivable (continued)

Accounts receivable in the amount of $505,253 (2020 - $863,866) (net of expected credit losses) relate to holdbacks associated with project completion and commissioning.

The gross amount due from customers for construction contracts at December 31, 2021 is $6,230,578 (2020 - $6,108,297).

Allowance for expected credit losses	2021	2020
	$	$
Balance at beginning of the year	881,315	872,749
Impairment losses recognized	-	271,260
Reclassification of unbilled revenue valuation allowance	165,000	-
Amounts written off during the year as uncollectible	-	-
Amounts recovered during the year	-	(262,694)
	1,046,315	881,315

The Company provides for expected credit losses based on its assessment of probability of specific losses, estimates of future individual exposures and provisions based on historical experience. In estimating expected credit losses the Company determined that historic credit losses represented as a percentage of the days outstanding of accounts receivable the percentages shown in the table below.

Days Outstanding	2021	2020
	%	%
0-30	0.370	0.960
31-60	0.440	1.400
61-90 days	0.800	2.130
over 90 days	1.570	4.370
average	0.800	2.200

11. Inventories

	2021	2020
	$	$
Raw materials	171,566	37,210
Finished goods	730,104	907,569
	901,670	944,779

The total amount of inventories included in cost of goods sold for the year was $13,073,791 (2020 - $12,371,460).

The cost of inventories recognized as an expense includes $nil (2020 - $nil) in respect of write-downs of inventories to net realizable value.

12. Prepaid Expenses and deposits

	2021	2020
	$	$
Purchase deposits	490,145	429,541
Prepaid insurance	39,430	258,870
Prepaid commissions	129,309	168,840
	658,884	857,251

13. Equipment, leasehold improvements and right-of-use assets

	Research & production equipment	Office equipment	Leasehold improvements	Right-of use assets	Total
	$	$	$	$	$
Cost					
At December 31, 2019	1,780,739	682,390	488,933	459,998	3,412,060
Additions		1,132	341,268	1,066,806	1,409,206
Exchange differences	(12,949)	(2,715)	(3,227)	(21,202)	(40,093)
At December 31, 2020	1,767,790	680,807	826,974	1,505,602	4,781,173
Additions	1,509	15,197	59,273	-	75,979
At December 31, 2021	1,769,299	696,004	886,247	1,505,602	4,857,152
Accumulated depreciation					
At December 31, 2019	1,637,506	667,541	364,544	369,582	3,039,173
Charge for the year	104,016	(5,810)	21,290	234,967	354,463
Exchange differences	(21,366)	(2,715)	(745)	(3,304)	(28,130)
At December 31, 2020	1,720,156	659,016	385,089	601,245	3,365,506
Charge for the year	49,157	1,990	102,698	189,779	343,624
Exchange differences	306	-	2,646	-	2,952
At December 31, 2021	1,769,619	661,006	490,433	791,024	3,712,082
Carrying amount					
At December 31, 2020	47,634	21,791	441,885	904,357	1,415,667
At December 31, 2021	(320)	34,998	395,814	714,578	1,145,070

Depreciation of $270,389 (2020 - $292,337) has been recognized in cost of goods sold, and $73,235 (2020 - $62,125) has been recognized in general and administration expenses.

14. Provisions

Warranty	2021	2020
	$	$
Balance, beginning of year	542,112	472,340
Provisions used during the year	(1,030)	(65,911)
Provisions made during the year	(50,857)	135,683
	490,225	542,112

15. Contingency

From time to time, the Company is subject to legal proceedings and claims arising in the ordinary course of business. Management is of the opinion, based upon information presently available, that it is unlikely that any such liability, to the extent not provided for by insurance or otherwise, would have a material adverse effect in relation to the Company's consolidated financial position, liquidity, or results of operations. One of the Company's operating subsidiaries is subject to a $1.1 million claim in the United States for alleged costs related to a construction contract. The Company believes the claim is without merit and the operating subsidiary intends to vigorously defend against the claim including appealing any adverse decision.

16. Interest-bearing loans

Current	Interest rate	Maturity	2021	2020
	%		$	$
Working capital loan	Prime +.075	On demand	1,010,000	-
Current portion term loan	4.07	2022	498,811	-
			1,508,811	-
Non-current				
Term loan	4.07	12/01/28	4,000,000	-
Current portion	4.07	2022	(498,811)	-
			3,501,189	-

On December 1, 2021 the Company secured a $4,000,000 term loan and a $3,000,000 operating line of credit from a Canadian chartered bank. Both the working capital loan and the term loan are secured by a general security agreement and first charge over all the assets of The Company The term loan is repayable over 84 months in blended payments of $54,893 due on the 15th of each month.

17. Issued capital

	2021		2020	
Common shares	#	$	#	$
Balance, beginning of year	38,661,558	17,204,855	38,661,558	17,204,855
Purchased for cancellation [(1)]	(23,434,121)	(12,411,116)	-	-
Issued in connection with share-based compensation plans	250,000	112,614	-	-
Balance, end of year	15,477,437	4,906,353	38,661,558	17,204,855

Common shares do not have a par value and carry one vote per share. There are an unlimited number of common shares authorized for issuance.

(1) Shares purchased for cancellation

On August 5, 2021 the Company announced the intention to purchase for cancellation common shares held by a significant investor.

On December 2, 2021 the Company purchased 23,434,121 common shares for cancellation at an average cost of $0.53 with a book value of $0.48 per share.

18. Stock-based compensation

The Company uses an equity settled employee share option plan to attract and retain key employees, senior executives and directors. Under the terms of the plan, which received shareholder approval, the aggregate number of shares reserved for issuance is fixed at 5,300,000. The maximum number of shares reserved for issuance pursuant to options granted to any one person is limited to 5% of the common shares outstanding at the time of the grant. The share option exercise price is the closing market price of the Company’s common shares on the day prior to the date of the grant. Options granted under the plan may be exercised during a period not exceeding ten years from the date of the grant, subject to termination upon the option holder ceasing to be a director, senior executive or employee of the Company and have vesting periods of at least three years. Options issued under the plan are non-transferable.

a) Share options granted under the employee share option plan

As at December 31, 2021, employees held options for 3,085,000 common shares (of which 30,000 were unvested), in aggregate, which expire over the period from July 13, 2022 to June 6, 2029. As at December 31, 2020, employees held options for 3,355,000 common shares, in aggregate, which expire over the period from July 13, 2022 to June 6, 2029. Share options granted under the employee share option plan carry no rights to dividends and no voting rights.

18. Stock-based compensation (continued)

i) The following table summarizes the continuity of options issued under the plan:

	2021			2020	
	Number of options	Weighted average exercise price		Number of options	Weighted average exercise price
		$			$
Outstanding, beginning of year	3,355,000	0.34		3,390,500	0.35
Options forfeited	(20,000)	0.38		-	-
Options expired	-	-		(35,500)	0.68
Options exercised	(250,000)	0.34	(1)	-	-
Granted	-	-		-	-
Outstanding, end of year	3,085,000	0.34		3,355,000	0.34

(1) Weighted average share price on day of exercise was $0.58

ii) Options outstanding and exercisable at December 31, 2021:

Number outstanding	Exercise price	life in years	Number exercisable	exercise price
	$			$
20,000	0.10	0.5	20,000	0.10
2,875,000	0.345	5.1	2,875,000	0.345
20,000	0.38	5.4	20,000	0.38
80,000	0.34	6.5	80,000	0.34
90,000	0.35	7.5	60,000	0.35
3,085,000	0.34	5.9	3,055,000	0.34

19. Expenses

	$	$
Personnel	4,471,393	4,796,618
Subcontractors and materials	16,056,071	14,537,575
Depreciation of equipment and leasehold improvements	364,195	368,451
Other expenses	1,277,473	2,453,250
	22,169,132	22,155,894
Reported as:		
Cost of Sales	18,241,584	17,358,644
Sales and marketing	2,097,576	1,961,771
Research and development	14,223	30,510
General and administration	1,815,749	2,804,969
	22,169,132	22,155,894

20. Employee benefits

	2021	2020
	$	$
Wages and salaries	3,315,785	3,328,966
Termination benefits	-	115,000
Compulsory social security contributions	408,694	413,353
Contributions to defined contribution plans	182,737	220,222
Stock-based compensation	-	20,299
	3,907,216	4,097,840

21. Related party transactions

Compensation of key management personnel

The remuneration of directors and other members of key management, all of which was incurred in the normal course of operations during the year was as follows:

	2021	2020
	$	$
Short-term benefits	716,148	705,108
Stock-based compensation	-	-
	716,148	705,108

The remuneration of directors and key executives is determined by the remuneration committee having regard to the performance of individuals and market trends. Short-term benefits include salaries, and bonuses.

22. Leases

The Company leases land and buildings. Information about the leases for which the Company is a lessee is presented below.

When measuring lease liabilities, the Company discounted lease payments using its incremental borrowing rate of 6%.

Lease liabilities	2021	2020
Maturity analysis - contractual undiscounted cash flows	$	$
Less than one year	241,529	239,125
One to five years	586,951	828,480
Total undiscounted lease liabilities at December 31	828,480	1,067,605
Lease liabilities statement of financial position		
Current	185,687	217,584
Non-current	469,916	610,590
	655,603	828,174
Amounts recognized in profit or loss		
Rent	137,106	56,030
Interest on lease liabilities	50,541	50,990
Depreciation on right-of-use assets	189,777	229,419
	377,424	336,439
Amounts recognized in the statement of cash flows		
Total cash outflow for leases	239,125	199,743
Reported as:		
Cost of sales	33,217	(25,791)
General and administration	293,666	311,240
Finance costs	50,541	50,990
	377,424	336,439

23. Financial instruments

a) Financial and capital risk management

The Company is exposed to risks of varying degrees of significance which could affect its ability to achieve its strategic objectives for growth. The main objectives of the Company's risk management process are to ensure that risks are properly identified and that the capital base is adequate in relation to those risks. The principal financial risks to which the Company is exposed are described below.

i) Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Company. Credit risk arises primarily from the Company’s cash and cash equivalents and trade receivables. The Company has adopted a policy of only dealing with creditworthy counterparties as a means of mitigating the risk of financial loss from defaults. The Company’s exposure is continuously monitored.

The Company’s objective of managing credit risk is to mitigate the credit losses incurred. Credit risk is mitigated by entering into contracts with stable, creditworthy parties. The Company measures credit risk by reviewing the aging of its receivables. Credit reviews are conducted as deemed necessary and take into account the third party’s financial position and past payment experience. The Company minimizes the credit risk of cash and cash equivalents by making deposits with only reputable entities that have high credit ratings assigned by national credit rating agencies. The Company’s credit risk and related risk management practice remain unchanged from the prior year.

The carrying amount of financial assets recorded in the consolidated financial statements represents the Company’s maximum exposure to credit risk. No collateral or credit enhancements are in place.

At December 31, 2021, the Company had $1,047,578 (2020-$559,075) in trade receivables that were past due against which the Company recorded an allowance for expected credit losses of $1,046,315 (2020-$546,161).

ii) Interest rate risk

Interest rate risk refers to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Company’s exposure to the risk of changes in market interest rates relates primarily to the Company’s working capital loan with a floating interest rate. The Company’s objective of managing interest rate risk is to mitigate interest rate fluctuations while securing financing with the most favourable terms possible. Interest rate risk is managed by negotiating the most favourable terms possible with the Company’s lenders.

The following table demonstrates the sensitivity to a reasonable possible change in interest rates on that portion of loans affected.

	Increase/decrease in prime	Effect on profit before tax
	%	$
	(1.0)	(10,100)
	1.0	10,100
	2.0	20,200

23. Financial instruments (continued)

a) Financial and capital risk management (continued)

iii) Market risks

Foreign currency risk:

The Company's functional and reporting currency is the Canadian dollar. Foreign currency risk is primarily related to the Company's subsidiary in the US. US operations are conducted primarily in US dollars. The Company's subsidiary in China conducts business in Chinese renminbi. For the Company's foreign currency transactions, fluctuations in the respective exchange rates relative to the Canadian dollar will create volatility in the Company's cash flows and the reported amounts of sales, cost of goods sold and general and administrative expenses on a period-to-period basis and compared with operating budgets and forecasts. The Company's sales are primarily in Canadian and US dollars. The Company's objective of managing foreign currency risk is to mitigate or eliminate the losses incurred. There have been no changes to the objective or the related risk exposure from the prior year.

At December 31, 2021 and 2020, the Company held no forward exchange contracts.

The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities at the statement of consolidated financial position date are as follows:

	Assets		Liabilities	
	2021	2020	2021	2020
	$	$	$	$
United States dollars	5,752,279	8,060,598	6,903,924	4,561,314
Chinese renminbi	1,145,421	1,766,170	820,302	695,713

The following table details the Company's sensitivity to a 10% increase and decrease in the Canadian dollar against the United States dollar. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and adjusts their translation at the period end for a 10% change in foreign currency rates. A positive number below indicates an increase in profit and other comprehensive income where the Canadian dollar strengthens 10% against the United States dollar. For a 10% weakening of the Canadian dollar against the United States dollar, there would be an equal and opposite impact on the profit and other comprehensive income, and the balances below would be negative.

	United States dollar impact	
	2021	2020
	$	$
Profit or loss	82,653	456,974
Other comprehensive income	54,152	66,516

23. Financial instruments (continued)

a) Financial and capital risk management (continued)

iv) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. Ultimate responsibility for liquidity risk management rests with the Board of Directors, which has built an appropriate liquidity risk management framework for the management of the Company's short, medium and long-term funding and liquidity management requirements. The Board of Directors reviews and approves the Company's operating and capital budgets, as well as any material transactions out of the ordinary course of business including proposals on major investments. The Company manages liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecasts and actual cash flows and matching the maturity profiles of financial assets and liabilities.

The Company's objectives of managing liquidity risk are to forecast the liquidity position as accurately as possible and to maintain sufficient resources to pursue its growth strategy. There have been no changes to the Company's objectives during the year. The Company's financial liabilities include accounts payable and accrued liabilities, unearned revenue and contract advances.

A maturity analysis as at December 31, 2021 of the Company's financial liabilities based on gross, undiscounted cash flows is presented below. The maturity analysis is based on the earliest date that liabilities may be due although the Company expects some of its liabilities to be paid later than the earliest date on which the Company can be required to pay.

	Carrying Amount	Contractual Cash Flow	Less than 1 month	1-3 months	3 months to 1 year	1+ years	Total
	$	$	$	$	$	$	$
2021							
Accounts payable	5,065,853	5,065,853	5,065,853	-	-	-	5,065,853
Accrued liabilities	2,512,982	2,512,982	2,102,882	410,100	-	-	2,512,982
Interest bearing loans	5,010,000	5,621,161	58,226	109,786	494,037	4,959,112	5,621,161
Lease liabilities	655,603	828,480	18,198	36,396	163,782	610,104	828,480
	13,244,438	14,028,476	7,245,159	556,282	657,819	5,569,216	14,028,476
2020							
Accounts payable	1,808,644	1,808,644	1,808,644	-	-	-	1,808,644
Accrued liabilities	2,593,508	2,593,508	2,593,508	-	-	-	2,593,508
Lease liabilities	828,174	1,067,605	16,582	33,164	149,238	868,621	1,067,605
	5,230,326	5,469,757	4,418,734	33,164	149,238	868,621	5,469,757

23. Financial instruments (continued)

a) Financial and capital risk management (continued)

v) Capital management risk

The policy of the Board of Directors is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. Capital management objectives, policies and procedures remained unchanged during the year ended December 31, 2021.

The capital structure is managed by evaluating shareholders' equity and non-current liabilities of the Company.

Shareholders' equity and non-current liabilities at end of the reporting period was as follows:

	2021	2020
Non-current liabilities	3,971,105	610,590
Shareholders' equity	1,964,309	13,524,621
	5,935,414	14,135,211

23. Financial instruments (continued)

b) Financial instruments

Categories and fair value of financial instruments

	2021		2020	
	Carrying value	Fair value	Carrying value	Fair value
	$	$	$	$
Financial assets				
Cash and cash equivalents	4,471,304	4,471,304	8,869,324	8,869,324
Accounts receivable	6,506,760	6,506,760	6,322,217	6,322,217
	10,978,064	10,978,064	15,191,541	15,191,541
Financial liabilities				
Accounts payable and accrued liabilities	7,578,835	7,578,835	3,791,563	3,791,563
Interest bearing loans	5,010,000	5,010,000	-	-
Lease liabilities	655,603	655,603	828,173	828,173
	13,244,438	13,244,438	4,619,736	4,619,736

The Company has determined that the fair value of its short-term financial assets and liabilities approximates their respective carrying amounts because of the short-term maturity of those instruments.

The fair values of the Company's interest bearing loans are determined by using the DCF method using a discount rate that reflects the issuer's borrowing rate at the end of the reporting period. The non-performance risk as at December 31, 2021 was assessed to be insignificant.