HPQ Silicon Inc.

(Formerly HPQ Silicon Resources Inc.)

Consolidated Financial Statements
As at December 31, 2022 and 2021

(in Canadian dollars)

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INDEPENDENT AUDITOR'S REPORT

To the Shareholders of HPQ Silicon Inc. (formerly HPQ Silicon Resources Inc.)

Opinion

We have audited the consolidated financial statements of HPQ Silicon Inc. (formerly HPQ Silicon Resources Inc.) (the "Entity"), which comprise:

- the consolidated statements of financial position as at December 31, 2022 and December 31, 2021
- the consolidated statements of loss and other comprehensive loss for the years then ended
- the consolidated statements of changes in equity for the years then ended
- the consolidated statements of cash flows for the years then ended
- and notes to the consolidated financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated financial position of the Entity as at December 31, 2022 and December 31, 2021, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS Standards").

Basis for Opinion

We conducted our audit 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 Financial Statements*"** section of our auditor's report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the 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.

Material Uncertainty Related to Going Concern

We draw attention to Note 2 in the financial statements, which indicates that the Entity has not yet generated income, has operated at a loss and has negative cash flows from operations. Accordingly, the Entity depends on its ability to raise financing in order to discharge its commitments and liabilities in the normal course of operations.

As stated in Note 2 in the financial statements, these events or conditions, along with other matters as set forth in Note 2 in the financial statements, indicate that a material uncertainty exists that may cast significant doubt on the Entity's ability to continue as a going concern.

Our opinion is not modified in respect of this matter.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for the year ended December 31, 2022. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

In addition to the matter described in the **"*Material Uncertainty related to Going Concern*"** section of the auditor’s report, we have determined the matter described below to be the key audit matter to be communicated in our auditor’s report.

Evaluation of indicators of impairment for property and equipment and intellectual properties

Description of the matter

We draw attention to Notes 4.8, 4.9, 4.10, 5.2, 11 and 12 to the financial statements. The carrying amounts of the Entity’s property and equipment and intellectual properties are $3,839,058 and $11,061,876, respectively. During the year ended December 31, 2022, the Entity recorded an impairment of $574,909 of property assets and a write-off of $1,321,272 of intangible assets. The Entity performs an assessment of internal and external facts and circumstances demonstrating the existence of potential indicators of impairment. Significant judgment is required in assessing indicators of impairment.

Why the matter is a key audit matter

We identified the evaluation of indicators of impairment for property and equipment and intellectual properties as a key audit matter. Property and equipment and intellectual properties are material to the financial statements. Significant auditor judgment is required to evaluate the results of our audit procedures and assess the Entity’s evaluation of whether indicators of impairment exist.

How the matter was addressed in the audit

The following are the primary procedures we performed to address this key audit matter.

We evaluated the Entity's analysis of external impairment indicators by:

- Comparing the qualitative information included in the analysis to external market and industry data.
- Inspecting publicly available information for changes in the silicon metal market.
- Comparing the Entity's market capitalization to the carrying value of its net assets.

We evaluated the Entity's analysis of internal impairment indicators by:

- Obtaining an understanding of the technical feasibility related to the equipment by obtaining a report prepared by the Entity detailing the progression and inspecting internal documentation.
- Discussing the report prepared by the Entity with the engineers and project managers and assessing the existence of technological setbacks that are indicative of impairment.

Other Information

Management is responsible for the other information. Other information comprises:

- the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions.

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

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions as at 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 in the auditor's report.

We have nothing to report in this regard.

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

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

In preparing the financial statements, management is responsible for assessing the Entity'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 Entity or to cease operations, or has no realistic alternative but to do so.

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

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the 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 the 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 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 Entity'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 Entity'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 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 Entity to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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

- Provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group Entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.
- Determine, from the matters communicated with those charged with governance, those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our auditor's report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this auditor's report is Tracy Chehab.

KPMG LLP*

Montréal, Canada

April 27, 2023

*CPA auditor, public accountancy permit No. A126055

HPQ Silicon Inc. (Formerly HPQ Silicon Resources Inc.)
Consolidated Statements of Financial Position
As at December 31, 2022 and 2021
(in Canadian dollars)

	Notes	December 31, 2022	December 31, 2021
		$	$
ASSETS			
Current			
Cash		1,143,902	2,672,696
Marketable securities	6	710,403	666,000
Goods and services tax receivable		1,047,106	645,981
Investment tax credits receivable	11	207,101	50,000
Installments to a subcontractor	7	890,000	-
Deposit on contract	29	1,286,000	-
Prepaid expenses and other		267,281	176,229
Exploration and evaluation assets held for sale	9	-	200,000
		5,551,793	4,410,906
Non-current			
Property and equipment	11	3,839,058	5,087,335
Intangible assets	12	11,866,770	9,856,438
Deposit on contract	29	-	1,950,000
Royalties' receivable	8	146,273	211,864
Right-of-use assets		28,331	-
Investment accounted for using the equity method	13	180,014	206,236
		16,060,446	17,311,873
Total assets		21,612,239	21,722,779
LIABILITIES			
Current			
Payable to a subcontractor and other trade payables	14	3,969,320	258,905
Due to directors	15	100,000	41,500
Royalties payable	12	354,578	300,935
Current portion of lease liabilities		11,371	-
		4,435,269	601,340
Non-current			
Due to directors, officers and a company owned by a director, without interest (effective rate of 3.1% in 2022 and 2021)	15	827,052	982,456
Lease liabilities		16,997	-
Royalties payable	12	1,814,251	1,806,738
		2,658,300	2,789,194
Total liabilities		7,093,569	3,390,534
EQUITY			
Share capital	17	54,865,457	49,858,704
Contributed surplus		3,782,159	3,516,870
Accumulated other comprehensive income		16,991	-
Deficit		(44,270,333)	(35,043,329)
Equity attributable to owners		14,394,274	18,332,245
Non-controlling interests	25	124,396	-
Total equity		14,518,670	18,332,245
Total liabilities and equity		21,612,239	21,722,779

The accompanying notes are an integral part of the consolidated financial statements.
These consolidated financial statements were approved and authorized for issue by the Board of Directors on April 27, 2023.

ON BEHALF OF THE BOARD

(s) Patrick Levasseur Director
(s) Bernard J. Tourillon Director

HPQ-Silicon Resources Inc.
Consolidated Statements of Net Loss

As at December 31, 2022 and 2021
(in Canadian dollars)

	Notes	2022	2021
		$	$
Expenses			
Salaries and employee benefits expense	18.1	755,976	3,176,300
Other operating expenses	20	1,072,661	1,110,345
Research and development costs [1]		2,406,957	109,433
Amortization of intangible assets	12	611,023	234,021
Amortization of property and equipment	11	1,568,157	-
Write-off of property and equipment	11	574,909	-
Impairment of intangible assets	12	1,321,272	-
Impairment (Recovery) of exploration and evaluation assets	9	(91,494)	1,164,595
Operating loss		8,219,461	5,794,694
Other income (expenses)			
Finance (loss) income	21	(396,941)	(19,596)
Finance costs	21	(344,351)	(554,507)
Share of loss from equity-accounted investment		(35,282)	(53,596)
Adjustment of ownership in equity-accounted investment		9,060	32,859
Loss on modification of royalties receivable		(97,160)	-
Change in fair value of derivative liability	16	-	58,268
		(864,674)	(536,572)
Loss before income tax		(9,084,135)	(6,331,266)
Income taxes	23	-	-
Net loss		(9,084,135)	(6,331,266)
Net loss attributable to:			
Owners of the Company		(9,207,424)	(6,331,266)
Non-controlling interests	25	123,299	-
		(9,084,135)	(6,331,266)
Loss per share attributable to owners			
Basic and diluted loss per share	22	(0.03)	(0.02)

[1] Including share-based payments of $77,349 in 2022.

The accompanying notes are an integral part of the consolidated financial statements.

HPQ Silicon Inc. (Formerly HPQ Silicon Resources Inc.)
Consolidated Statements of Comprehensive Loss
As at December 31, 2022 and 2021
(in Canadian dollars)

	Notes	2022	2021
		$	$
Net loss		(9,084,135)	(6,331,266)
Other comprehensive income item that will subsequently be reclassified to net earnings:			
Exchange difference resulting from the conversion of a foreign subsidiary		16,991	-
Comprehensive loss		(9,067,144)	(6,331,266)
Comprehensive loss attributable to:			
Owners of the Company		(9,190,443)	(6,331,266)
Non-controlling interests	25	123,299	-
		(9,067,144)	(6,331,266)

The accompanying notes are an integral part of the consolidated financial statements.

HPQ Silicon Inc. (Formerly HPQ Silicon Resources Inc.)
Consolidated Statements of Changes in Equity
As at December 31, 2022 and 2021
(in Canadian dollars)

	Notes	Equity attribuable to owners							
		Share capital	Equity component of convertible debenture	Contibuted surplus	Deficit	Accumulated other comprehensive income	Total	Non-controlling interests	Total equity
		$	$	$	$	$	$	$	$
Balance at January 1, 2021		38,888,312	115,491	2,144,842	(28,659,966)	-	12,488,679	-	12,488,679
Share issuance for the settlement of accounts payable	17.1	42,375	-	-	-	-	42,375	-	42,375
Exercise of warrants	17.2	6,498,624	-	(635,624)	-	-	5,863,000	-	5,863,000
Exercise of options	18.2	2,363,437	-	(712,437)	-	-	1,651,000	-	1,651,000
Exercise of conversion rights on convertible debenture	16	1,788,972	(115,491)	-	-	-	1,673,481	-	1,673,481
Exercise of conversion rights on the interest on convertible debenture		276,984	-	-	-	-	276,984	-	276,984
Share-based payments		-	-	2,720,089	-	-	2,720,089	-	2,720,089
Issuance costs of units		-	-	-	(52,097)	-	(52,097)	-	(52,097)
		10,970,392	(115,491)	1,372,028	(52,097)	-	12,174,832	-	12,174,832
Total net loss and comprehensive loss for the period		-	-	-	(6,331,266)	-	(6,331,266)	-	(6,331,266)
Balance at December 31, 2021		49,858,704	-	3,516,870	(35,043,329)	-	18,332,245	-	18,332,245
Unit issuance by private placement	17.1	3,264,000	-	340,000	-	-	3,604,000	-	3,604,000
Investments from non-controlling interests	25	-	-	-	-	-	-	1,097	1,097
Exercise of warrants	17.2	1,184,716	-	(106,744)	-	-	1,077,972	-	1,077,972
Exercise of options	18.2	558,037	-	(210,037)	-	-	348,000	-	348,000
Share-based payments		-	-	242,070	-	-	242,070	-	242,070
Issuance costs of units		-	-	-	(19,570)	-	(19,570)	-	(19,570)
		5,006,753	-	265,289	(19,570)	-	5,252,472	1,097	5,253,569
Total net loss for the period		-	-	-	(9,207,434)		(9,207,434)	123,299	(9,084,135)
Total comprehensive income for the period		-	-	-	-	16,991	16,991	-	16,991
Balance at December 31, 2022		54,865,457	-	3,782,159	(44,270,333)	16,991	14,394,274	124,396	14,518,670

The accompaning notes are integral part of the consolidated financial statements.

HPQ Silicon Inc. (Formerly HPQ Silicon Resources Inc.)
Consolidated Statements of Cash Flows
As at December 31, 2022 and 2021
(in Canadian dollars)

	Notes	2022	2021
		$	$
OPERATING ACTIVITIES			
Net loss		(9,084,135)	(6,331,266)
Non-cash items			
Share-based payments		242,070	2,720,089
Impairment (recovery) of exploration and evaluation assets		(91,494)	1,164,595
Impairment of intangible assets		1,321,272	-
Write-off of property and equipment		574,909	-
Amortization of intangible assets		611,023	234,021
Amortization of property and equipment		1,568,157	-
Depreciation of right-of-use assets		2,576	-
Net change in fair value of marketable securities		508,053	56,000
Share of loss from equity-accounted investment		35,282	53,596
Adjustment of ownership in equity-accounted investment		(9,060)	(32,859)
Accretion revenues – royalties receivable		(6,111)	(32,318)
Change in fair value of royalties receivable		(25,458)	-
Accretion expenses – due to directors, officers and a company owned by a director		33,195	32,184
Accretion expenses – royalties payable		411,156	387,809
Loss on modification of royalties receivable		97,160	-
Interest income on royalties receivable		(25,000)	-
Adjustment of royalties payable		(100,000)	-
Accretion expenses – convertible debenture		-	85,967
Interests cost of the convertible debenture		-	48,547
Change in fair value of derivative liability		-	(58,268)
Salaries and employee benefits expense		25,000	-
Changes in working capital items	24	(967,819)	(737,732)
Cash flows used for operating activities		(4,879,224)	(2,409,635)
INVESTING ACTIVITIES			
Additions to property and equipment		(920,000)	(458,533)
Additions to intangible assets		(318,119)	(3,735,127)
Purchase of investments in a subcontractor		(260,000)	-
Additions to exploration and evaluation assets held for sale		(962)	(2,144)
Tax credits received		8,559	-
Cash flows used for investing activities		(1,490,522)	(4,195,804)
FINANCING ACTIVITIES			
Proceeds from issue of units by private placements		3,604,000	-
Proceeds from exercise of warrants		1,077,972	5,863,000
Proceeds from exercise of options		348,000	1,651,000
Investments from non-controlling interests		1,097	-
Repayment of dues to directors		(184,999)	(72,050)
Repayment of lease liabilities		(2,539)	-
Issuance cost of units		(19,570)	(52,097)
Cash flows provided by financing activities		4,823,961	7,389,853
Net change in cash		(1,545,785)	784,414
Effect of exchange difference on cash		16,991	-
Cash, beginning of the year		2,672,696	1,888,282
Cash, end of the year		1,143,902	2,672,696

For additional cash flows information refer to Note 24.

Cash operations		
Interests received from operating activities	54,543	4,086

The accompanying notes are an integral part of the consolidated financial statements.

1. NATURE OF OPERATIONS

HPQ-Silicon Inc. ("HPQ" or the "Company") specializes in the development of technologies related to the transformation of quartz into silicon materials and its derivatives.

During the Annual General Meeting held on June 30, 2022, the shareholders approved the change of the name of the company from HPQ-Silicon Resources Inc. to HPQ-Silicon Inc. This change came to effect on July 4, 2022.

As a result of the pending change in activity, the Company will focus on the innovation of silicon solutions and related technology and will longer focus on the exploration and evaluation of quartz properties. The pending change in activity has suspended substantive expenditures on further exploration for an evaluation of mineral resources in the properties owned by the Company. As part of its exit strategy from mining activities, the Company has committed to a plan to sell certain mining rights and as a result has classified the related exploration and evaluation assets as held for sale and was concluded on August 30,2022. An impairment test was performed as at December 31, 2021 on the properties owned by the Company. Refer to Note 8.

2. GOING CONCERN AND STATEMENT OF COMPLIANCE WITH IFRS

The consolidated financial statements have been prepared in compliance with International Financial Reporting Standards (IFRS) and the basis of the going concern assumption, meaning the Company will be able to realize its assets and discharge its liabilities in the normal course of operations.

The Company has not yet generated income, has operated at a loss and has negative cash flows from its operations. As at December 31, 2022, the Company has an accumulated deficit of $44,270,333 ($35,043,329 as at December 31, 2021). As the Company is still in its development phase and will now focus on the innovation of silicon solutions and related technology, the Company will likely continue to operate at a loss until the technology can be commercialized, and the Company will require additional financing in order to fund future operations and expansion plans. The Company does not expect to generate revenue from product sales unless and until it successfully completes development of its silicon solutions, which may take a number of years and is subject to significant uncertainty. Until such time that it can generate significant revenue from product sales, if ever, the Company expects to finance its operations through a combination of public or private equity or debt financings or other sources. The Company currently has no committed sources of financing available. While the Company has been successful in securing financing in the past, raising additional funds is dependent on a number of factors outside the Company's control, and as such there is no assurance that it will be able to do so in the future. The ability of the Company to meet its commitments and discharge its liabilities as they become due and become profitable is dependent on the successful completion of the development of its technology and its commercial production, its ability to raise additional funding to finance these activities and the continued financial support of shareholders and lenders. The conditions mentioned above indicate the existence of a material uncertainty that may cast a significant doubt as to the Company's ability to continue as a going concern.

The carrying amounts of assets, liabilities, revenues and expenses presented in the consolidated financial statements and the classification used in the statement of financial position have not been adjusted as would be required if the going concern assumption was not appropriate. Those adjustments could be material.

2. GOING CONCERN AND STATEMENT OF COMPLIANCE WITH IFRS (continued)

There is a significant business relationship and economic dependence with the subcontractor, PyroGenesis Canada Inc. (PyroGenesis or subcontractor), which is a shareholder of HPQ. HPQ does business with PyroGenesis for its research and development activities involving the plasma-based process, the latter is a company that develops plasma reactors in a closed-loop furnace. Under agreements with the Company or its subsidiaries, PyroGenesis provides engineering services and assembles the equipment and the Company pays the costs upon presentation of invoices for the work performed. In the event that the work carried out achieves the intended objectives, the Company may be required to pay royalties. The Company continues its other activities with its European partners. The assets acquired with the subcontractor, PyroGenesis, are described in Note 11 and 12.

3. GENERAL INFORMATION

HPQ is incorporated under the *Canada Business Corporations Act*. The address of the registered office and its principal place of business is 3000 Omer-Lavallée Street, office 306, Montreal, Quebec, Canada. HPQ shares are listed on the TSX Venture Exchange.

4. SUMMARY OF ACCOUNTING POLICIES

4.1 Overall considerations

The significant accounting policies that have been applied in the preparation of these consolidated financial statements are summarized below.

4.2 Principle of consolidation

The Company’s consolidated financial statements include the accounts of the parent company and the subsidiaries it controls. Control exists when an investor is exposed, or has rights, to variable returns from its involvement with an investee and has the ability to affect those returns through its power over the investee. Subsidiaries are included in the consolidated financial statements from the date control is obtained until the date control ceases. Where the Company’s interest in a subsidiary is less than 100%, the Company recognizes non-controlling interests. All intercompany balances, transactions, income, expenses, profits, and losses, including unrealized gains and losses have been eliminated on consolidation. When the Company ceases to have control; any retained interest in the entity is re-measured to its fair value at the date when control is lost, with the change in carrying amount recognized in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture, or financial asset.

4. SUMMARY OF ACCOUNTING POLICIES (continued)

4.2 Principle of consolidation (continued)

The following table presents detailed information on the subsidiaries held by the Company at the end of the financial reporting period.

Name	Principal activities	Country of incorporation	Percentages held by the Company
HPQ Nano Silicon Powders Inc. (HPQ Nano)	Manufacture of silicon nanoscale materials	Canada	100%
HPQ Silica Polvere Inc. (HPQ Polvere)	Manufacture of Fumed Silica	Canada	100%
NOVACIUM S.A.S. (Novacium)	Research and development of products made of silicon and its derivatives	France	20%

With regard to Novacium, since June 7, 2022, the Company exercises control through the holding of a preferred share granting it a right of veto over decisions that have a significant impact on the relevant activities of this subsidiary.

4.3 Investment in associate

The associate is an entity over which the Company is able to exert significant influence, but which is not a subsidiary. Investments in the associate are initially recognized at cost and subsequently accounted for using the equity method.

The carrying amount of interest in an associate is increased or decreased to recognize the Company’s share of the profit or loss of the associate adjusted where necessary to ensure consistency with the accounting policies of the Company.

When the Company’s share of the associated company’s losses is equal to or greater than its interest in the partnership, the Company ceases to recognize its share in subsequent losses. Additional losses are provisioned, and a liability is recognized if the Company has a legal or constructive obligation or made payments on behalf of the associated Company.

4.4 Functional and presentation currency

The Company and its subsidiaries each determine their functional currency based on the currency of the primary economic environment in which they operate. Transactions denominated in a currency other than the functional currency of the entity are translated at the exchange rate in effect on the transaction date. Related exchange differences are included in each entity's net income for the period in which they arise.

The Company's foreign operation is translated into the Company's presentation currency for inclusion in the consolidated financial statements. Monetary and non-monetary assets and liabilities denominated in foreign currencies of the foreign operation are translated at the exchange rate prevailing at the end of the reporting period. Income and expenses are converted at the exchange rates in effect on the transaction date. The related exchange difference is included in other comprehensive income, and the cumulative difference is presented in accumulated other comprehensive income. Amounts previously recognized in accumulated other comprehensive income are recognized in profit or loss when a reduction in the net investment occurs.

4. SUMMARY OF ACCOUNTING POLICIES (continued)

4.5 Financial instruments

Recognition and derecognition

Financial assets and financial liabilities are recognized when the Company becomes a party to the contractual provisions of the financial instrument.

Financial assets and liabilities are initially measured at fair value adjusted for transaction costs, if applicable.

Financial assets are derecognized when the contractual rights to cash flows from a financial asset expire, or when a financial asset and substantially all risks and rewards are transferred. A financial liability is derecognized in the event of termination, extinction, cancellation or expiration.

The classification of financial instruments under IFRS 9 is based on the entity's business model and the characteristics of the contractual cash flows of the financial asset or liability.

Classification and initial valuation of financial assets

Financial assets are classified into one of the following categories:

- Amortized cost;
- Fair value through profit or loss ("FVTPL");

All income and expenses relating to financial assets recognized in profit or loss are presented in finance costs or financial income.

Subsequent measurement of financial assets

Financial assets are measured at amortized cost if they meet the following conditions:

- They are held according to an economic model whose objective is to hold financial assets in order to collect the contractual cash flows;
- The contractual terms of the financial assets give rise to cash flows that correspond solely to repayments of principal and interest payments on the principal outstanding.

After initial recognition, they are measured at amortized cost using the effective interest rate method. Royalties receivable are included in this category of financial instruments.

Financial assets that are held in a different economic model other than "holding for the purpose of collection" or "holding for the purpose of collection and sale" are classified in the FVTPL category.

4. SUMMARY OF ACCOUNTING POLICIES (continued)

Financial assets at fair value through profit or loss ("FVTPL")

The class includes the marketable securities of a quoted company as an equity investment.

Assets in this category are measured at fair value and gains or losses are recognized in net income. The fair value of financial assets in this category is determined based on transactions in an active market or by applying a valuation technique when there is no active market.

Impairment of financial assets

The impairment provisions in IFRS 9 use more forward-looking information, the expected credit loss model, which replaces the IAS 39 loss model.

The recognition of credit losses is no longer dependent on the identification of a credit loss event by the Company. Rather, it must take into account an expanded range of information for assessing credit risk and assessing expected credit losses, including past events, current circumstances, and reasonable and justifiable forecasts that affect expected recoverability of future cash flows of the financial instrument.

The estimate of expected credit losses is determined at each reporting date to reflect changes in credit risk since the initial recognition of the related financial asset.

Classification and measurement of financial liabilities

The Company's financial liabilities include trade payables and other payables (excluding salaries and personnel expenses), royalties payable, due to directors and officers (current and non-current liabilities), and to a corporation owned by a director (excluding salaries and personnel expenses).

4.6 Basic and diluted loss per share

Basic loss per share is calculated by dividing the loss attributable to common equity holders of the Company by the weighted average number of common shares outstanding during the period. Diluted earnings per share is calculated by adjusting loss attributable to common equity holders of the Company, and the weighted average number of common shares outstanding, for the effects of all dilutive potential common shares which include share options, brokers' warrants, brokers' units and warrants. Dilutive potential common shares shall be deemed to have been converted into common shares at the average market price at the beginning of the period or, if later, at the date of issue of the potential common shares.

4.7 Investment tax credits receivable

The Company is entitled to a refundable tax credit for scientific research and experimental development tax credits. The tax credits are recognized as a reduction of the cost of assets acquired and on estimates made by management. The Company records these tax credits when there is reasonable assurance with regards to collections and assessments and that the Company will comply with the conditions associated to them. Adjustments required, if any, are reflected in the year when such assessments are received.

4. SUMMARY OF ACCOUNTING POLICIES (continued)

4.8 Property and equipment

Property and equipment are held at cost less accumulated amortization and accumulated impairment losses. Cost includes all costs incurred initially to acquire or construct an item of property and equipment.

Amortization is recognized on a straight-line basis to reduce the cost to its estimated residual value, with a constant charge over the useful life of the asset.

Equipment and leasehold improvements are amortized on a straight-line basis over a period of 3 to 10 years and equipment under construction will be amortized on a straight-line basis over a period of 3 to 10 years when they are ready for use.

The amortization expense for each period is recognized in profit or loss. The residual value, amortization method and useful life of each asset are reviewed at least at each financial year-end.

The carrying amount of an item of property and equipment is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. The gain or loss arising from the derecognition of an item of property and equipment is included in profit or loss when the item is derecognized.

4.9 Intangible assets

Patents and intellectual property are intangible assets measured at historical cost less accumulated amortization and accumulated impairment losses, if any. The cost of patents consists of the cost of patent applications. The cost of intellectual property is initially comprised of the acquisition cost. Amortization is calculated on a straight-line basis over the estimated useful life of the patent and intellectual property, which is valued at 17 and 21 years, respectively. The amortization period and amortization method are reviewed annually and adjusted prospectively as required.

4.10 Impairment of assets

For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are largely independent cash inflows (cash-generating units). As a result, some assets are tested individually for impairment and some are tested at a cash-generating unit level.

Whenever events or changes in circumstances indicate that the carrying amount may not be recoverable, an asset or cash-generating unit is reviewed for impairment, with the exception the equipment under construction and intangible assets that are not yet ready for use.

Intangible assets that are not yet ready for use must be tested for impairment annually.

An impairment loss is recognized for the amount by which the asset's (or cash-generating unit's) carrying amount exceeds its recoverable amount, which is the higher of fair value less costs of disposal and value-in-use. To determine the value-in-use, management estimates expected futures cash flows from each cash-generating unit and determines a suitable discount rate in order to calculate the present value of those cash flows. Discount factors are determined individually for each cash-generating unit and reflect current market assessments of the time value of money and asset-specific risk factors.

An impairment loss is recognized in profit or loss for the amount by which the assets or cash-generating unit's carrying amount exceeds its recoverable amount. The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less cost to sell and its value in use.

An impairment charge is reversed if the assets or cash-generating unit's recoverable amount exceeds it carrying amount.

4. SUMMARY OF ACCOUNTING POLICIES (continued)

4.11 Provisions and contingent liabilities

Provisions are recognized when present legal or constructive obligations as a result of a past event will probably lead to an outflow of economic resources from the Company and amounts can be estimated reliably. Timing or amount of the outflow may still be uncertain. Provisions are measured at the estimated expenditure required to settle the present obligation, based on the most reliable evidence available at the reporting date, including the risks and uncertainties associated with the present obligation.

All provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. No provision was recognized in the consolidated statements of financial position at December 31, 2022 and December 31, 2021.

4.12 Income taxes

Tax expenses recognized in profit or loss comprises the sum of deferred tax and current tax not recognized directly in equity.

Calculation of current tax is based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period. Deferred income taxes are calculated using the liability method.

Deferred tax assets are recognized to the extent that it is probable that the underlying tax loss or deductible temporary difference will be utilized against future taxable income. This is assessed based on the Company's forecast of future operating results, adjusted for significant non-taxable income and expenses and specific limits on the use of any unused tax loss or credit.

Deferred tax liabilities are generally recognized in full, although IAS 12 "Income Taxes" specifies limited exemptions. As a result of these exemptions, the Company does not recognize deferred tax on temporary differences relating to goodwill, or to its investments in subsidiaries.

4.13 Equity

Share capital represents the amount received on the issue of shares. If shares are issued when share options, brokers' warrants, brokers' units or warrants are exercised, the share capital account also comprises the compensation costs or the value of the stock options, brokers' options, warrants or brokers' warrants previously recorded as contributed surplus.

Unit placements

Proceeds from unit placements are allocated between shares and warrants issued using the residual method. Proceeds are first allocated to the shares according to the quoted price of existing shares at the time of issuance and any residual in the proceeds is allocated to warrants.

Other elements of equity

Contributed surplus includes charges related to share options, brokers' units, warrants and brokers' warrants until such options and warrants are exercised. When they are cancelled or expired, the related compensation cost is transferred to Deficit. When options and warrants are exercised, the related compensation cost is transferred to share capital.

Deficit includes all current and prior period retained profits or losses, plus issuance costs, net of any underlying income tax benefit from these issuance costs and compensation related to options and warrants cancelled or expired, transferred from contributed surplus.

4. SUMMARY OF ACCOUNTING POLICIES (continued)

4.14 Equity-settled share-based payments

The Company operates an equity-settled share-based payment plan for its eligible directors, officers, employees and consultants. The Company's plan does not feature any option for a cash settlement.

All goods and services received in exchange for the grant of any share-based payments are measured at their fair values, unless that fair value cannot be estimated reliably. If the Company cannot estimate reliably the fair value of the goods or services received, the Company shall measure their value indirectly by reference to the fair value of the equity instruments granted. For the transactions with employees and others providing similar services, the Company measured the fair value of the services rendered by reference to the fair value of the equity instruments granted.

All equity-settled share-based payments (except brokers' warrants, brokers' units and brokers' options) are ultimately recognized as an expense in profit or loss or capitalized as exploration and evaluation assets, depending on the nature of the payment with a corresponding credit to Contributed surplus, in equity. Equity-settled share-based payments to brokers, in respect of an equity financing are recognized as issuance costs of the equity instruments with a corresponding credit to contributed surplus, in equity.

The expense is allocated over the vesting period, based on the best available estimate of the number of share options expected to vest. Estimates are subsequently revised if there is any indication that the number of share options expected to vest differs from previous estimates. Any cumulative adjustment prior to vesting is recognized in the current period. No adjustment was made to any expense recognized in the prior period if share options ultimately exercised are different to that estimated on vesting.

4.15 Segmental reporting

The Company presents and discloses segmental information based on information that is regularly reviewed by the chief operating decision maker, i.e. the Chairman and the Board of Directors. The Company has determined that there was only one operating segment, being the sector of the transformation of quartz into silicon materials and derivative products.

4.16 Standards, amendments and interpretations to existing standards that are not yet effective and have not been adopted early by the Company

At the date of authorization of these consolidated financial statements, certain new standards, amendments and interpretations to existing standards have been published but are not yet effective and have not been adopted early by the Company.

Management anticipates that all of the relevant pronouncements will be adopted in the Company's accounting policies for the first period beginning after the effective date of the pronouncement. Information on new standards, amendments and interpretations that are expected to be relevant to the Company's consolidated financial statements is provided below. Certain other new standards and interpretations have been issued but are not expected to have a material impact on the Company's consolidated financial statements.

4. SUMMARY OF ACCOUNTING POLICIES (continued)

4.16 Standards, amendments and interpretations to existing standards that are not yet effective and have not been adopted early by the Company (continued)

Amendments to *IAS 16, Property, Plant and Equipment: Proceeds Before Intended Use*

In May 2020, the IASB issued Property, Plant and Equipment: Proceeds before Intended Use, Amendments to IAS 16. This amendment prohibits a company from deducting from the cost of property, plant and equipment amounts received from selling items produced while the company is preparing the asset for its intended use. Instead, a company will recognize such sales proceeds and related costs in profit or loss.

This amendment is applicable to the Company beginning January 1, 2022. Management is currently assessing the impact of the adoption of this amendment but no significant impact is expected on the Company’s financial statements.

IAS 1, Disclosure of Accounting Policies

In February 2021, the IASB issued amendments to IAS 1 to require entities to disclose its material accounting policies instead of its significant accounting policies.

This amendment is applicable to the Company beginning January 1, 2023. The adoption of this amendment is not expected to have a significant impact on the Company’s financial statements.

IAS 8, Definition of Accounting Estimates

In February 2021, the IASB issued amendments to IAS 8 to replace the definition of a change in accounting estimate. Under the new definition, accounting estimates are “monetary amounts in financial statements that are subject to measurement uncertainty”.

This amendment is applicable to the Company beginning January 1, 2023. The adoption of this amendment is not expected to have a significant impact on the Company’s financial statements.

IAS 12, Deferred Tax Related to Assets and Liabilities Arising From a Single Transaction

In May 2021, the IASB issued amendments to IAS 12 to require entities to recognize deferred tax on transactions that, on initial recognition, give rise to equal amounts of taxable and deductible temporary differences.

This amendment is applicable to the Company beginning January 1, 2023. The adoption of this amendment is not expected to have a significant impact on the Company’s financial statements.

5. JUDGMENTS, ESTIMATES AND ASSUMPTIONS

When preparing the consolidated financial statements, management undertakes a number of judgments, estimates and assumptions about recognition and measurement of assets, liabilities, income and expenses.

5.1 Significant management judgments

The following are significant management judgments in applying the accounting policies of the Company that have the most significant effect on the consolidated financial statements.

5. JUDGMENTS, ESTIMATES AND ASSUMPTIONS (continued)

5.1 Significant management judgments (continued)

Determination of control, joint control or significant influence over a business

The Company must make judgments when assessing the level of control and influence it exercises over its holdings, considering in particular the way in which decisions concerning the relevant activities of the holding company are taken, the protective nature or substantial rights held by other holders and the Company's ability to influence the returns of the investee.

Going concern

The assessment of the Company's ability to continue as a going concern and to raise sufficient funds to pay for its ongoing operating expenditures, meets its liabilities for the ensuing year, and to fund planned and contractual scientific research and experimental development, involves significant judgment based on historical experience and other factors including expectation of future events that are believed to be reasonable under the circumstances. See Note 2 for more information.

5.2 Assumptions and estimation uncertainty

Information about estimates and assumptions that have the most significant effect on the recognition and measurement of assets, liabilities, income and expenses are discussed below. Actual results may be substantially different.

Investment tax credits receivable

The calculation of the Company's refundable tax credit of scientific research and experimental development tax credits involves a degree of estimation and judgment with respect to certain items whose tax treatment cannot be finally determined until a notice of assessment has been issued by the relevant taxation authority and payment has been received. Differences arising between the actual results following final resolution of some of these items and the assumptions made could necessitate adjustments to the refundable tax credit, refundable tax credit for scientific research and experimental development, property and equipment and income tax expense in future periods. See Note 4.7 for more information.

Impairment of assets

Determining if there are any internal or external facts and circumstances indicating impairment loss or reversal of impairment losses is a subjective process involving significant judgment and a number of estimates and assumptions (see Note 4.10).

When an indication of an impairment loss or a reversal of an impairment loss exists, the recoverable amount of the individual asset or the cash-generating units must be estimated.

In assessing impairment, the Company must make some estimates and assumptions regarding future circumstances. Estimates and assumptions may change if new information becomes available. If, information becomes available suggesting that the recovery of expenditure is unlikely, the amount capitalized is written off in profit or loss in the period when the new information becomes available.

(in Canadian dollars)

5. JUDGMENTS, ESTIMATES AND ASSUMPTIONS (continued)

5.2 Assumptions and estimation uncertainty (continued)

Impairment of property and equipment and intangible assets

In assessing impairment, management estimates the recoverable amount of each cash-generating asset or unit based on future cash flows and uses an interest rate to discount them. The uncertainty in the estimates is related to assumptions about future operating results and the determination of an appropriate discount rate. During the period, the company recorded a write-off of $574,909 of property and equipment and an impairment of $1,321,272 on intangible assets. As at December 31, 2021, no impairment was recorded on property and equipment and intangible assets.

6. MARKETABLE SECURITIES

The Company holds shares and warrants in various public companies. During the year ended December 31, 2022, these shares and warrants were valued at fair market value, resulting in a loss of $508,053 (loss of $56,000 as at December 31, 2021).

Shares of various public companies are classified as FVTPL and are recorded at fair value using quoted market prices as at December 31, 2022 and are therefore classified as Level 1 within the fair value hierarchy.

The warrants in various public companies are classified as FVTPL and are recorded at fair value using a Black-Scholes pricing model with observable inputs and are therefore classified as Level 2 within the fair value hierarchy.

The following table summarizes the information on marketable securities for the periods presented:

	December 31, 2022	December 31, 2021
	$	$
Balance at January 1st	666,000	722,000
Acquisition of securities through disposition of assets held for sale (a)	292,456	-
Acquisition (b)	260,000	-
Change in fair market value	(508,053)	(56,000)
	710,403	666,000

(a) During the month of August 2022, the Company received 3,000,000 units consisting of one common share and one-half of one warrant from Québec Innovantrice Materials Corp. (QIMC) (formerly Québec Silica Resources Inc.), a public company, sold 27 claims from the Ronceveaux property and 36 claims from the Martinville property. The shares were issued at $0.07 per share and each full warrant is exercisable at $0.15 for a period of 3 years expiring on August 31, 2025. The fair value was estimated using the Black-Scholes model as follows: share price $0.07, risk-free interest rate – 1.65%, expected life of warrants– 3 years, volatility rate – 417% and dividend rate – 0%.

The Company held 3,000,000 common shares as at December 31, 2022 (2021- none) and the quoted price of QIMC shares was $0.045 as at December 31, 2022.

(in Canadian dollars)

6. MARKETABLE SECURITIES (continued)

For the variation of warrants, the Company held 1,500,000 warrants that are exercisable at a price of $0.15 per share. The fair value of warrants was valued at $67,395 as at December 31, 2022 (2021 – $0)and was estimated using the Black-Scholes model with the following assumptions: share price $0.045, risk-free interest rate 4.03%, expected life of warrants 2.67 years, volatility rate 406% and a dividend rate 0%.

(b) During the month of October 2022, the Company acquired 200,000 units consisting of one common share and one warrant of PyroGenesis Canada Inc. for a total value of $260,000. Each warrant is exercisable at a price of $1.75 over a period of 2 years expiring on October 19, 2024. The Company held 400,000 common shares as at December 31, 2022 (2021 - 200,000).

For the variation of warrants, the Company held 200,000 warrants that are exercisable at a price of $1.75 per share. The fair value of the warrants was valued at $96,008 as at December 31, 2022 (2021 – $0) and was estimated using the Black-Scholes model with the following assumptions: share price $1.03, risk-free interest rate 4.03%, expected life of warrants 1.8 years, volatility rate 117% and dividend rate 0%.

7. INSTALLMENTS TO A SUBCONTRACTOR

This amount represents the balance of the installment made by the company, on September 28, 2022, to a subcontractor in the amount of $2,650,000 to be used for acquisition and works anticipated in the near future. This amount is conditional and must be returned to the company in the event the planned work and transaction are not agreed upon by the parties before December 31, 2022.

8. ROYALTIES RECEIVABLE

During 2021, the Company received 166,667 shares of the capital stock of GBF as a settlement of a royalty receivable from GBF of $50,000. As a result of the exchange, the Company recognized an increase of $9,770 in its investment of BGF and a loss of $40,230.

On June 23, 2022, an addendum was signed to modify initial terms of the agreement. The NSR payments for each subsequent year have been replaced with 10% annual interest, the $250,000 royalty is non-transferable and the due date is December 31, 2025 including unpaid interest. As at December 31, 2022, the balance of interest receivable is $25,000.

	December 31, 2022	December 31, 2021
	$	$
Balance, beginning	211,864	229,546
Change in fair value	19,068	32,318
Reimbursement through the issuance of shares	-	(50,000)
	230,932	211,864
Derecognition of royalties	(230,932)	-
Addition of a royalty receivable	133,772	-
Accretion charge	12,501	-
Balance, end	146,273	211,864

8. ROYALTIES RECEIVABLE (continued)

The fair value of the royalties receivable was estimated using a present value technique, immediately prior to the modification date. The revalued fair value of $230,932 was estimated based on the probability of cash outflows over a four-year period at 18%, which is the interest rate for similar financial instruments. Undiscounted cash inflows are $250,000 and reflect management's estimate of the timing of royalty repayment.

The Company derecognized the royalty receivable of $230,932 and with the new agreement revalued the royalty in the amount of $133,772, calculated based on estimated cash flows under the addendum over a period of 3.5 years discounted at a rate of 18%. Undiscounted cash inflows are $250,000 and reflect management's estimate of the timing of royalty payment. The change in royalty resulted in a loss of $97,160 which was recorded in net income during the period.

9. ASSETS HELD FOR SALE

In December 2021, following its decision to cease its mineral exploration activities, the Company made a commitment to sell its Ronceveaux and Martinville properties. As at December 31, 2021, the Properties of Ronceveaux and Martinville were presented in the statement of financial position at the lower of fair value less costs to selland their carrying amount.

For assets and liabilities to be classified as held for sale, IFRS 5, Non-Current Assets Held for Sale and Discontinued Operations, requires cash-generating units to be available for immediate sale in their present condition and for the sale to be highly probable.

Following a decision by the Company's executive officers to dispose of Ronceveaux properties and Martinville Properties, the related exploration and evaluation assets were classified as held for sale. Accordingly, the related assets and liabilities were measured at fair value less costs of disposal. Estimates and assumptions were used by Management in measuring these assets at their fair value less costs to dispose.

The fair value of assets held for sale was determined by discounting the excess amount spent on work, reported to the Ministère de l'Énergie et des Ressources naturelles, that may be applied in the six subsequent claim renewal periods. In addition, to determine fair value, comparable market transactions were analyzed and standard valuation methods were used. The methodologies used to determine fair value use Level 3 data inputs based on the fair value hierarchy disclosed in Note 19.

This resulted in an impairment charge of $1,164,595 as at December 31, 2021. The Ronceveaux and Martinville properties had negligible income or expenditures given it was classified as an exploration and evaluation property and all expenditures were capitalized.

On August 30, 2022, the Company completed the sale of its quartz properties to Québec Silica Resources Inc ("QTZ"), now known as QIMC, in consideration of 3,000,000 units composed of one common share and one-half of one warrant issued by QTZ. Each full warrant entitles the holder to subscribe for one common share at a price of $0.15 per share for 36 months following closing of the transaction. The value of the transaction is $292,456 which was recorded as an investment. A recovery of exploration and evaluation assets of $91,494 has been recorded in net loss during the year.

(in Canadian dollars)

10. EXPLORATION AND EVALUATION ASSETS

	Balance at January 1, 2021	Additions	Impairment	Balance at December 31, 2021
	$	$	$	$
Quebec				
Roncevaux Property				
Mining rights	5,881	-	-	5,881
Exploration and evaluation expenses	1,129,534	227,035	(1,164,595)	191,974
Reclassification to assets held for sale (Note 9)				(197,855)
	1,135,415	227,035	(1,164,595)	-
Martinville Property				
Mining rights	1	2,144	-	2,145
Reclassification to assets held for sale (Note 9)				(2,145)
	1	2,144	-	-
Summary				
Mining rights	5,882	2,144	-	8,026
Exploration and evaluation expenses	1,129,534	227,035	(1,164,595)	191,974
Reclassification to assets held for sale (Note 9)	-	-	-	(200,000)
	1,135,416	229,179	(1,164,595)	-

During the 2021 fiscal year, management tested the Ronceveaux properties for impairment due to the fact that no expenditures are planned for the coming years as a result of management's strategy to exit mining operations (Note 1). At the same time, management committed to sell the Ronceveaux and Martinville properties and present them as held for sale (note 8).

Quebec

Roncevaux Property

Prior to the sale in 2022, the Company held a 100% interest in 27 claims (27 claims as at December 31, 2021) acquired by staking.

Martinville Property

In 2019, the Company recorded an impairment for the Martinville property and prior to the sale in 2022 held a 100% interest in 36 claims (36 claims as at December 31, 2021) acquired by staking.

(in Canadian dollars)

11. PROPERTY AND EQUIPMENT

Property and equipment of the Company are composed of leashold improvements, equipment and equipment under construction. The carrying amount is set out as follows:

	Leasehold improvements	Equipment	Equipment under construction	Total
	$	$	$	$
Gross carrying amount				
Balance at January 1, 2022	344,000	4,240,000	503,335	5,087,335
Acquisition from subcontractor	-	890,715	79,285	970,000
Investment tax credits	-	(67,500)	(7,711)	(75,211)
Write-off	-	-	(574,909)	(574,909)
Balance at December 31, 2022	344,000	5,063,215	-	5,407,215
Accumulated depreciation				
Balance at January 1, 2022	-	-	-	-
Depreciation	114,667	1,453,490	-	1,568,157
Balance at December 31, 2022	114,667	1,453,490	-	1,568,157
Carrying amount at December 31, 2022	229,333	3,609,725	-	3,839,058

In fiscal 2022, management wrote off the equipment under construction held by its subsidiary, HPQ Nano Powders of Silicon Inc., *PUREVAP*^{TM} NSiR Gen1.5, due to the fact that the equipment design did not meet its intended purpose. *PUREVAP*^{TM} NSiR Gen1.5 aimed to transform high-purity silicon into spherical nano silicon wires and powders. Even after final adjustments, the problem of oxygen contamination of the final material remained and the technical feasibility of the project was no more. The total carrying amount of the equipment under construction was therefore written off, i.e. $574,909.

	Leasehold improvements	Equipment	Equipment under construction	Total
	$	$	$	$
Gross carrying amount				
Balance at January 1, 2021	344,000	-	4,314,802	4,658,802
Acquistions from subcontractor	-	-	458,533	458,533
Investment tax credits	-	-	(30,000)	(30,000)
Reclassification	-	4,240,000	(4,240,000)	-
Balance at December 31, 2021	344,000	4,240,000	503,335	5,087,335
Accumulated depreciation				
Balance at January 1, 2021 and December 31, 2021	-	-	-	-
Carrying amount at December 31, 2021	344,000	4,240,000	503,335	5,087,335

(in Canadian dollars)

12. INTANGIBLE ASSETS

Fumed Silica

On June 30, 2021, the Company acquired intellectual property for the production of fumed silica materials. Pursuant to the purchase agreement, the Company is committed to pay to the seller the greater of an annual royalty equal to 10% of net revenues, excluding the samples (as defined in the agreement) generated from the exploitation of the acquired technology or the minimum amounts per the agreement. Also, the seller is being granted the right to convert, at any time and at its sole discretion, its royalties into a 50% equity stake of HPQ Polvere. An amount of $3,300,000 paid in cash was recorded as the cost of intellectual property.

The minimum annual royalty amounts owed when there is income under this new agreement are as follows:

	$
2023	50,000
2024	100,000
2025	150,000
2026 and after	200,000

PUREVAP™ NSiR

On August 18, 2020, the Company acquired from PyroGenesis the PUREVAP™ NSiR technology for the fabrication of nano silicon materials. Pursuant to the purchase agreement, the Company is committed to pay to the seller the greater of an annual royalty equal to 10% of net revenues (as defined in the agreement) generated from the exploitation of the acquired technology or the minimum amounts per the agreement. Also, the seller is being granted the right to convert, at any time and at its sole discretion, its royalties into a 50% equity stake of HPQ Nano.

The minimum annual amounts under this new agreement are as follows:

	$
2023	150,000
2024 and after	200,000

The intellectual property, was recognized upon acquisition for a total amount of $2,400,000, paid in cash. The related liability, royalties payable, of $864,013 calculated based on estimated cash flows under the agreement over a period of 25 years at a discounted rate of 18%, was also recorded to intellectual property.

PUREVAP™ QRR

On July 29, 2016, the Company acquired PUREVAP™ QRR technology from PyroGenesis for the transformation of quartz into silicon metal of high purity. Pursuant to the purchase agreement, the Company is committed to pay to the seller the greater of an annual royalty equal to 10% of net revenues (as defined in the agreement) generated from the exploitation of the acquired technology or the minimum annual amounts per the agreement. An addendum was signed on December 8, 2019 for the cancellation of the amounts payable for the years 2019 and 2020 and the modification of the minimum amounts for 2020 and 2021. A gain of $350,000 on the modification of the initial agreement was recognized during the fiscal 2019.

(in Canadian dollars)

12. INTANGIBLE ASSETS (continued)

PUREVAP™ QRR (continued)

The minimum annual amounts under this new agreement are as follows:

	$
2023 and after	250,000

The intellectual property and its related liability, royalties payable, were recognized upon acquisition for a total amount of $815,427 and were calculated based on estimated cash flows under the agreement over a period of 20 years at a rate of 22%. The amount of $50,000 recorded as a deposit in 2015 was reversed at the cost of the intellectual property. In 2016, an amount of $1,000,000 paid in cash was recorded at the cost of the intellectual property.

Management uses its judgment to estimate the amount of royalties payable under the QRR PUREVAP™ and NSiR PUREVAP™ technology acquisition agreement. Estimation uncertainty is related to net revenue assumptions and the determination of a suitable discount rate.

The following table shows the distribution of royalty payments to be paid according to PUREVAP ™ technology as at December 31, 2022:

	QRR	NSiR	Total
	$	$	$
Current	227,459	127,119	354,578
Non-current	893,319	916,932	1,814,251
	1,124,778	1,044,051	2,168,829

The following table shows the distribution of royalty payments to be paid according to PUREVAP ™ technology as at December 31, 2021:

	QRR	NSiR	Total
	$	$	$
Current	216,189	84,746	300,935
Non-current	921,949	884,789	1,806,738
	1,138,138	969,535	2,107,673

(in Canadian dollars)

12. INTANGIBLE ASSETS (continued)

CARBON EMISSION REDUCTION PROCESS:

On November 10, 2022, the company acquired from PyroGenesis, in consideration of $3,600,000, the technology relating to carbon emission reduction for the production of Silicon. In accordance with the purchase agreement, the company agreed to make the payment thereof no later than June 30, 2023.

The Company’s intangible assets include patents and intellectual property. The carrying amount is as follows:

	Patents	Intellectual property	Total
	$	$	$
Gross carrying amount			
Balance at January 1, 2022	547,991	10,005,249	10,553,240
Acquisitions	342,627	3,600,000	3,942,627
Impairment	-	(1,575,809)	(1,575,809)
Balance as at December 31, 2022	890,618	12,029,440	12,920,658
Accumulated depreciation			
Balance at January 1, 2022	42,619	654,183	696,802
Depreciation	43,105	567,918	611,023
Impairment	-	(254,537)	(254,537)
Balance as at December 31, 2022	85,724	967,564	1,053,288
Carrying amount at December 31, 2022	804,894	11,061,876	11,866,770

In the last quarter of fiscal 2022, management recorded an impairment for the full carrying amount of $1,575,809, on the process acquired from Apollon Solar SAS due to the fact that HPQ could not demonstrate the economic value of this specific application used to produce porous silicon in the short term.At the end of the year, HPQ made the strategic decision to focus on the production of silicon in micro-powder, rather than porous silicon. The Company sees better financial opportunities in micro-powder market.

(in Canadian dollars)

12. INTANGIBLE ASSETS (continued)

	Patents	Intellectual property	Total
	$	$	$
Gross carrying amount			
Balance at January 1, 2021	342,702	6,491,495	6,834,197
Acquisitions	205,289	3,513,754	3,719,043
Balance as at December 31, 2021	547,991	10,005,249	10,553,240
Accumulated depreciation			
Balance at January 1, 2021	15,385	220,361	235,746
Depreciation	27,234	433,822	461,056
Balance as at December 31, 2021	42,619	654,183	696,802
Carrying amount at December 31, 2021	505,372	9,351,066	9,856,438

An amount of $611,023 ($234,021 as at December 31, 2021) is presented in Amortization of intangible assets and an amount of $227,035 as at December 31, 2021 is presented as an increase in exploration and evaluation assets and was subsequently written down. See Note 9.

13. INVESTMENT ACCOUNTED FOR USING THE EQUITY METHOD

On December 31, 2022, the Company holds an 4.73% (6.66% as at December 31, 2021) voting and equity interest in BGF. The investment is accounted for using the equity method since December 2018. Although the Company holds less than 20% of the voting rights, it has concluded that it exercises significant influence over it, in particular because of the representation it has on the Board of Directors. As at December 31, 2022, the fair value of the investment amounts to $167,024 ($334,048 as at December 31, 2021).

The aggregate amount of the associate can be summarized as follows:

	October 31, 2022	October 31, 2021
	$	$
Current assets	746,971	749,645
Non-current assets	3,731,141	3,036,863
Current liabilities	179,946	126,151
Non-current liabilities	142,133	206,478
Net and total loss of comprehensive income	600,222	726,063

(in Canadian dollars)

13. INVESTMENT ACCOUNTED FOR USING THE EQUITY METHOD (continued)

A reconciliation of the summarized financial information with the carrying value of the investment is as follows:

	October 31, 2022	October 31, 2021
	$	$
Total net assets	4,156,033	3,453,879
Contributed surplus not attached to ordinary shareholders	(351,571)	(356,589)
	3,804,462	3,097,290
Portion of the interest held by the Company	4.73%	6.66%
	180,014	206,236

The Company has not incurred any contingent liabilities or other commitments relating to its investment in this associate.

During 2021, the Company received 166,667 shares of the capital stock of GBF as a settlement of a royalty receivable from GBF of $50,000. As a result of the exchange, the Company recognized an increase of $9,770 in its investment of BGF and a loss of $40,230.

During the year ended December 31, 2022, BGF issued shares for the closing of a private placement and exercise of warrants. Those issuances decreased the Company’s ownership from 6.66% to 4.73%.

14. TRADE AND OTHER PAYABLES

	December 31, 2022	December 31, 2021
	$	$
Trade accounts	168,426	73,980
Payable to a subcontractor	3,699,434	125,821
Salaries payable	60,294	25,000
Other	41,166	34,104
	3,969,320	258,905

15. DUE TO DIRECTORS, OFFICERS AND A COMPANY OWNED BY A DIRECTOR

The Company owes to directors, officers and a company owned by a director some salaries and remuneration for a nominal value of $935,391 (2021: $1,061,891). The Company has obtained confirmation for said nominal value of $835,391 in debts (effective rate of 3.1%) (2021: $1,020,391, effective rate of 3.1%), that they will not request payment thereof prior to 12 months plus one day following December 31, 2022. These amounts are classified as non-current liabilities. The remaining amount of $100,000 (2021: $41,500) has been classified as current liabilities and presented as due to the directors.

(in Canadian dollars)

16. CONVERTIBLE DEBENTURE AND DERIVATIVE LIABILITY

In August 2018, the Company completed the offering of an unsecured convertible debenture in the amount of $1,800,000 bearing interest at an annual rate of 5%, compounded monthly and payable on the debenture maturity date of August 20, 2023. On June 22, 2021, the holder of the debenture converted $1,800,000 of debentures into common shares at a price of $0.11 per share and also converted the interests of $276,984 into common shares at a price of $0.61 per share in accordance with the terms of the convertible debenture. The Company issued 16,363,636 common shares on debenture and 454,072 common shares on interest.

	Convertible debenture	Derivative liability	Total
	$	$	$
Carrying amount at January 1, 2021	1,261,977	383,806	1,645,783
Accretion of convertible debenture	85,967	-	85,967
Change in fair value of derivative liability	-	(58,268)	(58,268)
Conversion	(1,347,944)	(325,538)	(1,673,482)
Carrying amount at December 31, 2021	-	-	-

In accordance with IFRS, because of the discounted rate for payment of interest, the conversion option is a derivative financial liability measured at fair value and changes in fair value are recognized in the Consolidated Statement of Comprehensive Income each period.

The Company recorded interest expenses in the amount of $45,547 and $85,967 related to the accretion of the convertible debenture as at December 31, 2021.

17. EQUITY

17.1 Share capital

The authorized share capital of the Corporation consists of an unlimited number of common shares without par value. They are voting, participating and eligible to receive the dividends.

	December 31, 2022	December 31, 2021
	Number of shares	Number of shares
Shares issued at the beginning	334,792,358	273,769,559
Private placements (d)	6,800,000	-
Issuance for the payment of accounts payable (c)	-	50,091
Exercise of warrants	7,506,412	38,455,000
Exercise of options	2,900,000	5,700,000
Exercise conversion rights on convertible debentures (a)	-	16,363,636
Exercise conversion interest on convertible debentures (b)	-	454,072
Total shares issued and full paid at the end	351,998,770	334,792,358

(in Canadian dollars)

17. EQUITY (continued)

17.1 Share capital (continued)

(a) On June 29, 2021, the Company issued 16,363,636 common shares upon conversion of the convertible debenture.

(b) On June 29, 2021, the Company issued 454,072 common shares upon conversion of interests on the convertible debenture.

(c) On August 27, 2021, the Company settled a trade account payable of $42,375 by the issuance of 50,091 common shares. No profit or loss was recorded on this transaction.

(d) On May 2, 2022, the Company completed a private financing for an amount of $3,604,000. The Company issued 6,800,000 units to PyroGenesis consisting of one common share and one warrant. Each full warrant entitles the holder thereof to subscribe an equivalent number of common shares of the Company at a price of $0.60 per share, during a period of 24 months following the closing of the financing. An amount of $340,000 was attributable to the warrants.

During the year ended December 31, 2022, 7,506,412 common shares were issued following the exercise of warrants. The weighted average share price at the date of exercise was $0.14 per share.

During the year ended December 31, 2022, 2,900,000 common shares were issued following the exercise of options. The weighted average share price at the date of exercise was $0.12 per share.

During the year ended December 31, 2021, 38,455,000 common shares were issued following the exercise of warrants. The weighted average share price at the date of exercise was $0.153 per share.

During the year ended December 31, 2021, 5,700,000 common shares were issued following the exercise of options. The weighted average share price at the date of exercise was $0.29 per share.

17.2 Warrants

Outstanding warrants entitle their holders to subscribe an equivalent number of common shares, as follows:

	December 31, 2022		December 31, 2021	
	Number of warrants	Weighted average exercise price	Number of warrants	Weighted average exercise price
		$		$
Balance, beginning of reporting year	24,201,012	0.20	62,656,012	0.17
Granted	6,800,000	0.60	-	-
Exercised	(7,506,412)	0.14	(38,455,000)	0.15
Balance, end of reporting period	23,494,600	0.33	24,201,012	0.20

(in Canadian dollars)

17. EQUITY (continued)

17.2 Warrants (continued)

Outlined below are the outstanding warrants which could be exercised for an equivalent number of common shares:

	December 31, 2022		December 31, 2021	
Expiration date	Number	Exercise price	Number	Exercise price
		$		$
January 2022 (i) (ii)	-	-	4,152,000	0.155
July 2022	-	-	1,779,412	0.15
August 2022	-	-	200,000	0.15
December 2022	-	-	1,375,000	0.10
April 2023	8,300,000	0.10	8,300,000	0.10
May 2023	4,394,600	0.10	4,394,600	0.10
September 2023	4,000,000	0.61	4,000,000	0.61
May 2024	6,800,000	0.60	-	-
	23,494,600	0.33	24,201,012	0.20

(i) Under the plan of arrangement, on February 6, 2019, the Company reduced the exercise price of warrants from $0.17 to $0.155.

(ii) On December 9, 2019, the Company extended 4,152,000 warrants until January 2022.

18. EMPLOYEE REMUNERATION

18.1 Salaries and employee benefits expense

Salaries and employee benefits expense are analyzed below:

	As at December 31,	
	2022	2021
	$	$
Salaries and benefits	341,180	472,086
Management fees	324,125	268,750
Share-based payments	-	2,359,792
Remuneration of directors	123,000	107,000
Salaries and benefits recovered	(32,329)	(31,328)
	755,976	3,176,300

18.2 Share-based payments

Under this option plan, the Directors may grant options to its Directors, Employees and Consultants or of those of its subsidiaries. The maximum number of shares to be granted under the Plan is 19,100,000 (22,000,000 as at December 31, 2021). As at December 31, 2022, 16,485,000 remained exercisable (17,885,000 as at December 31, 2021).

(in Canadian dollars)

18. EMPLOYEE REMUNERATION (continued)

18.2 Share-based payments (continued)

The Directors fix the exercise price of an option granted under the plan which cannot be lesser than the last closing price of the Corporation's shares as quoted by the TSX Venture Exchange at the end of the day preceding the one on which an option is granted, less the applicable discount as defined by the TSX Venture Exchange. The options can be exercisable for a maximum of ten years. Options are non-assignable and non-transferable except by will or the laws of succession. Upon the death of an option holder, the option may be exercised by the legal heirs or personal representatives of the option holder for a period not exceeding one year from the option holder's death provided that nothing in the foregoing shall have the effect of extending the Term of an option beyond its original expiry date. Options granted to an option holder who is a Director, Employee, Consultant or Management Company Employee shall expire at no later than a period of 12 months after the option holder ceases to be part of at least one of those categories, by reason other than the option holder's death.

No more than 5% of the shares issued by the Company may be granted to any individual in any 12-month period (unless the Company has obtained disinterested shareholder approval). No more than 2% of the shares issued by the Company may be granted to any one Consultant, in any 12-month period. No more than an aggregate of 2% of the shares issued by the Company may be granted to Persons providing Investor Relations Activities, during a 12-month period, calculated at the date the option was granted. Options granted to Consultants providing Investor Relations activities must vest gradually over 12 months with no more that ¼ of the options vesting in any three-month period. No accelerated acquisition of such options granted to those consultants shall be permitted if not approved by the Exchange. Options granted to an option holder who is providing Investor Relations activities shall terminate on expiry of a period not in excess of 30 days following the date that the option holder ceases to be provide such services. The number of Options granted to insiders, within a 12-month period may not exceed 10% of the issued Shares of the resulting issuer. The number of shares reserved for issuance under the Plan granted to insiders may not exceed 10% of the issued shares of the Company.

The Company's share options are as follows for the reporting periods presented:

	December 31, 2022		December 31, 2021	
	Number	Weighted average exercise price	Number	Weighted average exercise price
		$		$
Outstanding, beginning of reporting year	17,885,000	0.61	8,600,000	0.23
Granted	1,500,000	0.31	14,985,000	0.71
Exercised	(2,900,000)	0.12	(5,700,000)	0.29
Outstanding and exercisable, end of reporting period	16,485,000	0.67	17,885,000	0.61

(in Canadian dollars)

18. EMPLOYEE REMUNERATION (continued)

18.2 Share-based payments (continued)

The table below summarizes the information related to outstanding share options as at December 31, 2022:

Outstanding options		
Number of options	Weighted average exercise price	Weighted average remaining contractual life
	$	(years)
800,000	0.28	1.76
700,000	0.35	4.37
9,650,000	0.55	0.97
5,335,000	1.00	3.97
16,485,000	0.67	1.76

The table below summarizes the information related to outstanding share options as at December 31, 2021:

Outstanding options		
Number of options	Weighted average exercise price	Weighted average remaining contractual life
	$	(years)
2,900,000	0.12	1.00
9,650,000	0.55	1.97
5,335,000	1.00	4.97
17,885,000	0.61	2.71

The weighted fair value of the granted options of $0.161 ($0.181 as at December 2021) was determined using the Black-Scholes option pricing model based on the following weighted average assumptions:

	2022	2021
Average share price at date of grant	$0.31	$0.435
Expected dividend yield	0%	0%
Expected weighted volatility	72.0%	83.9%
Average risk-free interest rate	2.74%	1.15%
Expected average life	3.4 years	3.0 years
Average exercise price at date of grant	$0.31	$0.71

18. EMPLOYEE REMUNERATION (continued)

18.2 Share-based payments (continued)

The underlying expected volatility was determined by reference to historical data of the Company's shares over the expected average life of the options. No special features inherent to the options granted were incorporated into measurement of fair value.

In total, an amount of $242,070 ($2,720,089 as at December 31, 2021) of employee remuneration expense (all of which related to equity-settled share-based payment transactions) were included in profit or loss and credited to contributed surplus, therefore $164,721 as professional and consultation fees and $77,349 as research and development expenses ($2,359,792 as salary and employee benefits and $360,297 for professional and consultation fees as at December 31, 2021).

19. FAIR VALUE MEASUREMENT

19.1 Financial instruments measured at fair value

The hierarchy groups financial assets and liabilities into three levels based on the significance of inputs used in measuring the fair value of the financial assets and liabilities. The fair value hierarchy levels are as follows:

– Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities at the reporting date;

– Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and

– Level 3:Inputs for the assets or liabilities that are not based on observable market data.

The fair value of the marketable securities in a quoted company was estimated based on the market price at the closing date. Marketable securities in a quoted company measured at fair value in the consolidated statement of financial position as at December 31, 2022 and December 31, 2021 are classified as Level 1 and warrants are classified as Level 2.

19.2 Financial instruments measured at amortized cost for which a fair value is disclosed

The fair value of royalties receivable, due to directors, officers and a company owned by a director and royalties payable was estimated using an analysis of discounted cash flows with an interest rate for similar financial instruments.

The fair value royalties receivable in the current term as well as the royalties payable in the current term approximate the book value at the end of the period.

The fair value of royalties receivable in the non-current term, due to directors, officers and a company owned by a director and royalties payable in the non-current term is $146,273, $827,052 and $1,768,829 respectively ($211,864, $982,456 and $1,806,738 respectively as at December 31, 2021). See Notes 8, 15 and 12 for methods of assessing fair values.

Financial instruments are classified in Level 2 of the fair value hierarchy except for royalties receivable and royalties payable which are classified in Level 3 of the fair value hierarchy.

(in Canadian dollars)

20. OTHER OPERATING EXPENSES

Other operating expenses are detailed as follows:

	December 31,	
	2022	2021
	$	$
Professional and consultation fees (1)	735,642	852,298
Travelling expenses	28,973	16,626
Office expenses	160,299	74,530
Information to shareholders and registration fees	172,166	171,914
Bank charges	6,382	7,875
Loss (gain) on exchange rate	(24,245)	-
Administrative expenses recovered	(6,556)	(12,898)
	1,072,661	1,110,345

(1) Including share-based payments of $164,721 in 2022 and $360,297 in 2021.

21. FINANCE INCOME AND FINANCE COSTS

Finance income consists of the following for the reporting periods presented:

	December 31,	
	2022	2021
	$	$
Net change in fair value of marketable securities in a quoted company	(508,053)	(56,000)
Change in faire value of royalties receivable	25,458	-
Accretion revenues - royalties receivable	6,111	32,318
Interest income	79,543	4,086
	(396,941)	(19,596)

Finance costs consists of the following for the reporting periods presented:

	December 31,	
	2022	2021
	$	$
Interest charges on convertible debenture	-	(48,547)
Accretion expenses- royalties payable	(411,156)	(387,809)
Accretion expenses- due to directors, officers and companies owned by a director	(33,195)	(32,184)
Accretion expenses -Component of the convertible debenture	-	(85,967)
Adjustment – royalties payable	100,000	-
	(344,351)	(554,507)

(in Canadian dollars)

22. INCOME (LOSS) PER SHARE

The calculation of basic loss per share is based on the loss for the period divided by the weighted average number of outstanding shares during the period. In calculating the diluted loss per share, dilutive potential common shares such as warrants, brokers' warrants, brokers' units, share options and the convertible debenture have not been included as they would have the effect of decreasing the loss per share. Decreasing the loss per share would be antidilutive. Details of share options and warrants issued that could potentially dilute earnings per share in the future are given in Notes 17.2 and 18.2.

Both the basic and diluted loss per share have been calculated using the loss as the numerator, i.e. no adjustment to the loss was necessary in 2022 and 2021.

	December 31,	
	2022	2021
Net loss	$(9,084,135)	$(6,331,266)
Weighted average number of outstanding shares	345,005,110	307,652,853
Basic and diluted loss per share	$(0.03)	$(0.02)

See Note 30 for share capital transactions after December 31, 2022.

23. INCOME TAXES

Major components of tax expense (income)

The major components of tax expense (income) are outlined below:

	2022	2021
	$	$
Origination and reversal of temporary differences	(2,391,620)	(946,310)
Temporary differences not recorded	2,391,620	946,310
	-	-

Relationship between expected tax expense and accounting profit or loss

The relationship between the expected tax expense based on the combined federal and provincial income tax rate in Canada and the reported tax expense in the consolidated statement of comprehensive loss can be reconciled as follows:

	2022	2021
	$	$
Expected tax recovery calculated using the combined federal and provincial income tax rate in Canada of 26.5% (26.5% in 2020)	(2,445,683)	(1,677,786)
Adjustments for the following items:		
Fiscal impact of temporary difference not recorded	2,391,617	946,310
Non-taxable portion of the variation of fair value	70,791	10,168
Share-based payments	64,149	720,824
Other non-deductible expenses	(80,874)	484
Deferred income tax income	-	-

(in Canadian dollars)

23. INCOME TAXES (continued)

Deferred tax assets and liabilities and variation of recognized amounts during the year

The following differences between the carrying amounts and tax bases from temporary differences, unused tax losses and unused tax credits give rise to the following recognized deferred income tax assets and liabilities, and the following unrecognized temporary differences, unused tax losses and unused tax credits:

	Balance, January 1, 2022	Recognized in profit or loss	Balance, December 31, 2022
	$	$	$
Recognized			
Marketable securities	(75,205)	68,317	(6,888)
Intangible assets	(601,509)	189,213	(412,296)
Investment tax credits receivable	66	(49,476)	(49,410)
Royalties receivable	(56,144)	17,382	(38,762)
Due to directors, officers and a company owned by a director	(17,870)	8,797	(9,073)
Royalties payable	256,927	(52,336)	204,591
Non-capital losses	493,735	(181,897)	311,838
Recognized deferred tax assets and liabilities	-	-	-

	Balance, January 1, 2021	Recognized in profit or loss	Balance, December 31, 2021
	$	$	$
Recognized			
Marketable securities	(82,625)	7,420	(75,205)
Intangible assets	(507,748)	(93,761)	(601,509)
Investment tax credits receivable	(5,300)	5,366	66
Royalties receivable	(60,830)	4,686	(56,144)
Convertible debenture	(40,868)	40,868	-
Due to directors, officers and a company owned by a director	(26,399)	8,529	(17,870)
Royalties payable	223,978	32,949	256,927
Non-capital losses	499,792	(6,057)	493,735
Recognized deferred tax assets and liabilities	-	-	-

(in Canadian dollars)

23. INCOME TAXES (continued)

Deferred tax assets and liabilities and variation of recognized amounts during the year (continued)

	December 31, 2022	
	Federal	Provincial
	$	$
Deductible temporary differences and tax losses not recognized		
Property and equipment	1,059,675	1,091,162
Intangible assets	271,699	265,915
Patent and other elements	1,175,679	724,771
R&D costs	2,510,395	2,510,395
Issuance costs of equity instruments	66,851	66,851
Exploration and evaluation assets	3,244,252	3,243,320
Provisions and reserves	2,313,993	1,833,438
Marketable securities	78,500	78,500
Unused loss carry-forwards	21,094,346	24,671,458
	31,815,390	34,485,810

	December 31, 2021	
	Federal	Provincial
	$	$
Deductible temporary differences and tax losses not recognized		
Property and equipment	(231,068)	(199,581)
Intangible assets	35,985	30,201
Issuance costs of equity instruments	107,075	107,075
Exploration and evaluation assets	5,577,263	8,122,515
Provisions and reserves	2,352,151	2,943,333
Marketable securities	65,389	65,389
Unused loss carry-forwards	15,049,931	14,424,437
	22,956,726	25,493,369

(in Canadian dollars)

23. INCOME TAXES (continued)

The Company has non-capital losses which are available to reduce income taxes in future periods, for which no deferred tax asset has been recorded in the consolidated statement of financial position that can be carried over the following years:

	Federal	Provincial
	$	$
2027	7,506	-
2028	870,544	772,933
2029	614,130	610,009
2030	627,620	624,214
2031	759,417	755,536
2032	649,448	647,675
2033	803,620	798,209
2034	723,985	720,353
2035	1,082,684	1,077,205
2036	1,766,123	1,756,689
2037	1,602,371	1,593,219
2038	1,527,744	1,514,884
2039	1,100,417	1,098,582
2040	1,472,599	1,953,154
2041	2,231,119	2,949,752
2042	5,255,020	7,799,046
	21,094,347	24,671,460

The Company has tax credits for investments which are available to reduce income taxes in future periods, for which no deferred tax asset has been recorded. These tax credits can be carried over the following years:

	Federal	Provincial
	$	$
2027	3,363	-
2028	70,404	-
2029	8,810	-
2030	6,540	-
2031	310	-
2032	4,501	-
2033	1,200	-
2040	11,462	-
2041	56,397	-
2042	424,385	-
	587,372	-

(in Canadian dollars)

24. ADDITIONAL INFORMATION – CASH FLOWS

The changes in working capital items are detailed as follows:

	As at December 31,	
	2022	2021
	$	$
Goods and services tax receivable	(401,125)	(462,615)
Prepaid expenses and other	(66,052)	(76,229)
Deposit on contract	664,000	-
Installments to a subcontractor	(890,000)	-
Trade and other payables	57,307	126,362
Due to directors	58,500	(75,250)
Royalties payable	(250,000)	(250,000)
Investment tax credits receivable	(140 449)	-
	(967,819)	(737,732)

Non-cash balance sheet transactions are detailed as follows:

	As at December 31,	
	2022	2021
	$	$
Issuance of shares for payment of an account payable	-	42,375
Issuance of shares on conversion of the convertible debenture	-	1,673,482
Issuance of shares on conversion of interests on the convertible debenture	-	276,984
Trade and other payables included in intangible assets	3,624,508	-
Amortization of intangible assets included in exploration and evaluation assets	-	227,035
Tax credits receivable included in property and equipment	75,211	30,000
Marketable securities received on sale of assets held for sale	292,456	-

(in Canadian dollars)

25. NON-WHOLLY-OWNED SUBSIDIARY

	December 31, 2022
Proportion of ownership interests and voting rights held by non-controlling interests	80%
Net earnings allocated to non-controlling interests for the year	123,299
Non-controlling interests	124,396

Summarized financial information of the subsidiary that has non-controlling interests is set out below. The summarized financial information below represents amounts before intragroup eliminations.

	As at December 31, 2022
	$
Summary Statements of Net Lss and Comprehensive Loss	
Income	660,885
Expenses	506,761
Comprehensive income	154,124
Comprehensive income attribuable to:	
Owners of the Company	30,825
Non-controlling interests	123,299
	154,124
Summary Statements of Cash Flows	
Cash flows from operating activities	199,349
Cash flows used in investing activities	(65,610)
Cash flows from financing activities	1,372
Net change in cash and cash equivalents	135,111
Summary Statement of Financial Position	
Current assets	181,183
Non-current assets	60,390
	241,573
Current liabilities	78,438
Non-current liabilities	
Net asset	163,135
Equity attribuable to owners	31,099
Non-controlling interests	124,396
Foreign currency translation adjustment	7,640
	241,573

(in Canadian dollars)

26. RELATED PARTY TRANSACTIONS

The Company's related parties include key management and companies held by a director or an officer, as described below.

Unless otherwise stated, none of the transactions incorporated special terms and conditions and no guarantees were given or received. Outstanding balances are usually settled in cash.

26.1 Transactions with key management personnel

Key management personnel of the Company are members of the Board of Directors and officers. Key management personnel remuneration includes the following expenses:

	As at December 31,	
	2022	2021
	$	$
Short-term employee benefits		
Salaries and employee benefits expense	226,022	391,811
Management fees [1]	324,125	268,750
Directors' remuneration	123,000	107,000
Share-based payments	-	2,313,564
Total remuneration	673,147	3,081,125

(1) Paid to a company owned by a director.

Trade and other payables include an amount of $52,716 due to a company owned by a director ($59,854 as at December 31, 2021).

On December 31, 2022, due to directors, officers and a company owned by a director totalled $927,052 ($1,023,956 as at December 31, 2021).

27. CAPITAL MANAGEMENT POLICIES AND PROCEDURES

The Company's capital management objectives are to ensure the Company's ability to continue as a going concern, to increase the value of the assets of the business, and to provide an adequate return to owners of the Company.

These objectives will be achieved by technological development related to the transformation of quartz into silicon materials.

The Company monitors capital on the basis of the carrying amount of equity.

The Company is not exposed to any externally imposed capital requirements

The Company finances its technology development activities related to the transformation of quartz into silicon materials primarily by seeking additional capital either through private placements or public placements. When funding conditions are not optimal, the Company can sign option agreements or other agreements to be able to continue its exploration and evaluation activities or can slow down its activities until funding conditions improve.

28. FINANCIAL INSTRUMENT RISKS

The Company is exposed to various risks in relation to financial instruments. The main types of risks are market risk, credit risk and liquidity risk.

The Company risk management is coordinated in close cooperation with the Board of Directors. The Company's risk management focuses on actively securing the Company's short-term to medium-term cash flows by minimizing the exposure to financial markets.

The Company does not actively engage in the trading of financial assets for speculative purposes.

28.1 Market risk

The most significant financial risks to which the Company is exposed are described below.

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market prices. The Company is exposed to other price risk.

Other price risk sensitivity

The Company was exposed to fluctuations in the market prices of its marketable securities in a quoted company and derivative financial liability. The maximum risk to which the shares and derivative financial liability were exposed is equal to their fair value.

If the quoted share price for the shares had changed by ± 15% as at December 31, 2022 (± 15% as at December 31, 2021), the profit or loss and equity would have changed by $106,500 ($99,900 as at December 31, 2021).

28.2 Credit risk

Credit risk is the risk that another party to a financial instrument fails to meet its obligations and, therefore, leads the Company to incur a financial loss.

The Company's maximum exposure to credit risk is limited to the carrying value of cash and royalties receivable for an amount of $1,290,175 as at December 31, 2022 ($2,884,560 as at December 31, 2021).

The credit risk for the deposit on contract and the royalties receivable is considered limited. The Company continuously monitors default of counterparts. No impairment loss has been recognized in the periods presented.

The credit risk for cash is considered negligible, since the counterpart is a reputable bank with high quality external credit ratings.

28.3 Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting obligations with financial liabilities that are settled by cash or another financial asset.

Liquidity risk management serves to maintain a sufficient amount of cash and to ensure that the Company has financing sources such as private and public investments for a sufficient amount.

Over the period, the Company has financed its working capital requirements and acquisitions of property and equipment and intangible assets through private placements.

(in Canadian dollars)

28. FINANCIAL INSTRUMENT RISKS (continued)

28.3 Liquidity risk (continued)

The following table sets out the contractual maturities of the Company's financial liabilities:

	December 31, 2022	December 31, 2021
	$	$
Less than a year		
Trade payables and other accounts payable	269,886	133,084
Payable to a subcontractor	3,699,434	125,821
Lease liabilities	11,371	-
Royalties payable RRQ Purevap™	250,000	250,000
Royalties payable NRSi Purevap™	150,000	100,000
Total	4,380,691	608,905
Between one and 5 years		
Lease liabilities	23,379	-
Royalties payable RRQ Purevap™	1,000,000	1,000,000
Royalties payable NRSi Purevap™	800,000	750,000
	1,823,379	1,750,000
More 5 years		
Royalties payable RRQ Purevap™	2,250,000	2,500,000
Royalties payable NRSi Purevap™	3,600,000	2,000,000
	5,850,000	4,500,000

The Company considers expected cash flows from financial assets in assessing and managing liquidity risk, in particular its cash.

29. CONTINGENCIES AND COMMITMENTS

The Company is partially financed through the issuance of flow-through shares and, and is engaged in realizing mining exploration work, under the terms of the tax rules regarding this type of financing.

These tax rules also set deadlines for carrying out the exploration work, which must be performed no later than the first of the following dates:

– Two years following the flow-through financings;

– One year after the Company has renounced the tax deductions relating to the exploration work.

However, there is no guarantee that the Company's exploration expenses will qualify as Canadian exploration expenses, even if the Company is committed to taking all the necessary measures in this regard.

Refusal of certain expenses by the tax authorities would have a negative tax impact for investors.

29. CONTINGENCIES AND COMMITMENTS (continued)

In 2016, the Company entered into agreements with subscribers whereby the Company had to incur $1,245,000 of Canadian Exploration Expenses ("CEE") before December 31, 2017. The Company had incurred $919,296 in CEE before December 31, 2017 and an approximate balance of $293,000 of CEE renounced to the investors had not been incurred as at December 31, 2017 and was used for other purposes than exploration expenses. The maximal contingency for the Company, in relation to non-compliance with its obligations with subscribers, is approximately $220,000. As at February 28, 2018, the Company had produced the reduction forms related to the amount of $293,000 in CEE renounced to the investors and that had not been incurred as at December 31, 2017. As at December 31, 2022, an amount of $17,321 pertaining to part XII.6 taxes is included in trade payable accounts.

As at December 31, 2022, in addition to the royalties' payable mentioned in Note 11, the Company was committed to pay an amount of $1,570,021, consisting of $1,286,000 for testing on the Purevap™ QRR which to date has been paid and $284,021 for the fumed silica project.

30. SUBSEQUENT EVENT

Subsequent to period end, 6,220,000 warrants were issued for a total amount of $622,000 in cash.

Subsequent to period end, PyroGenesis refunded the $890,000 installment.

On February 21, 2023, the Company settled a debt payable to three European inventors owed to them as patent inventors. As part of this transaction, the three inventors have assigned all of their rights in the Purevap ™ QRR patent. The debt will be settled by issuing 360,000 units issued in two stages. 180,000 units have already been issued on February 24, 2023 and 180,000 units will be issued at the time of the international extension of the patent. Each unit consists of one common share and one warrant. Each warrant entitles the holder thereof to acquire one common share of the Company at a price of $0.32 per share for 24 months following the closing date of the transaction.