

PyroGenesis Canada Inc.
Financial Statements
December 31, 2019 and 2018

PyroGenesis Canada Inc.

December 31, 2019 and 2018

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PyroGenesis Canada Inc.

Management's Responsibility

Management is responsible for the preparation and presentation of the accompanying financial statements, including responsibility for significant accounting judgments and estimates in accordance with International Financial Reporting Standards. This responsibility includes selecting appropriate accounting principles and methods, and making decisions affecting the measurement of transactions in which objective judgment is required.

The Board of Directors and Audit Committee are composed primarily of Directors who are neither management nor employees of the Company. The Board of Directors is responsible for overseeing management in the performance of its financial reporting responsibilities, and for approving the financial information included in the annual report. The Board fulfils these responsibilities by reviewing the financial information prepared by management and discussing relevant matters with management and the external auditor. The Audit Committee has the responsibility of meeting with management and the external auditors to discuss the internal controls over the financial reporting process, auditing matters and financial reporting issues. The Audit Committee is also responsible for recommending the appointment of the Company's external auditor.

KPMG LLP, an independent firm of Chartered Professional Accountants, is appointed by the shareholders to audit the financial statements and report directly to them; their report follows. The external auditor has full and free access to, and meets periodically and separately with, both the Audit Committee and management to discuss their audit findings.

June 15, 2020

[Signed by P. Peter Pascali]

P. Peter Pascali, Chief Executive Officer

[Signed by Michael Blank]

Michael Blank, Interim Chief Financial Officer



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INDEPENDENT AUDITORS' REPORT

To the Shareholders of PyroGenesis Canada Inc.

Opinion

We have audited the financial statements of PyroGenesis Canada Inc. (the "Entity"), which comprise:

- the statements of financial position as at December 31, 2019 and December 31, 2018
- the statements of comprehensive loss for the years then ended
- the statements of changes in shareholders' (deficiency) equity for the years then ended
- the statements of cash flows for the years then ended
- and notes to the 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 financial position of the Entity as at December 31, 2019 and December 31, 2018, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting 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 "**Auditors' Responsibilities for the Audit of the Financial Statements**" section of our auditors' 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 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 1(b) in the financial statements, which indicates that the Entity has incurred operating losses and negative cash flows from operations, has an accumulated deficit, and that its operations are dependent on obtaining additional financing.



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As stated in Note 1(b) in the financial statements, these events or conditions, along with other matters as set forth in Note 1(b) 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.

Emphasis of Matter - Prospective Change in Accounting Policy

We draw attention to Note 3(a) to the financial statements, which indicates that the Entity has changed its accounting policy for leases as of January 1, 2019, due to the adoption of IFRS 16 - *Leases* using a modified retrospective approach.

Our opinion is not modified in respect of this matter.

Other Information

Management is responsible for the other information. Other information consists of 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 auditors' 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 auditors' 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 International Financial Reporting 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.



Auditors' 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 auditors' 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 auditors' 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 auditors' 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.



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- 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.

A handwritten signature in black ink that reads 'KPMG LLP' with a horizontal line underneath.

The engagement partner on the audit resulting in this auditors' report is Nathalie Labelle.

Montréal, Canada

June 15, 2020

PyroGenesis Canada Inc.

Statements of Financial Position

	December 31, 2019	December 31, 2018
	\$	\$
Assets		
<i>Current assets</i>		
Cash	34,431	644,981
Accounts receivable [note 7]	210,540	631,152
Costs and profits in excess of billings on uncompleted contracts [note 8]	122,980	307,832
Investment tax credits receivable [note 16]	709,395	633,348
Deposits	150,322	584,646
Prepaid expenses	96,886	66,321
Total current assets	1,324,554	2,868,280
<i>Non-current assets</i>		
Inventories [note 9]	10,068	382,832
Deposits and investments [note 10]	1,787,459	1,745,607
Property and equipment [note 11]	1,977,481	3,202,882
Right-of-use assets [note 12]	3,742,769	-
Intangible assets [note 13]	736,898	559,874
Total assets	9,579,229	8,759,475
Liabilities		
<i>Current liabilities</i>		
Accounts payable and accrued liabilities [note 14]	4,913,155	2,357,607
Billings in excess of costs and profits on uncompleted contracts [note 15]	3,084,657	4,352,410
Term loans [note 16]	496,000	247,200
Current portion of long-term debt [note 17]	284,956	12,491
Current portion of lease liabilities [note 12]	139,529	-
Convertible debentures [note 18]	2,898,358	-
Total current liabilities	11,816,655	6,969,708
<i>Non-current liabilities</i>		
Long-term debt [note 17]	-	268,576
Lease liabilities [note 12]	3,845,497	-
Convertible debentures [note 18]	-	2,527,241
Total liabilities	15,662,152	9,765,525
Shareholders' deficiency [note 19]		
Common shares and warrants	47,073,243	42,863,456
Contributed surplus	6,679,730	6,795,274
Equity portion of convertible debentures [note 18]	401,760	401,760
Deficit	(60,237,656)	(51,066,540)
Total shareholders' deficiency	(6,082,923)	(1,006,050)
Total liabilities and shareholders' deficiency	9,579,229	8,759,475

Going concern disclosure, related party transactions, contingent liabilities, subsequent events [notes 1(b), 23, 25, and 29]. The accompanying notes form an integral part of the financial statements.

Approved on behalf of the Board:

[Signed by P. Peter Pascali] P. Peter Pascali

[Signed by Michael Blank] Michael Blank

PyroGenesis Canada Inc.

Statements of Comprehensive Loss

Years ended December 31,

	2019	2018
	\$	\$
Revenues [note 6]	4,813,978	5,030,116
Cost of sales and services [note 21]	3,515,886	3,920,819
	1,298,092	1,109,297
Expenses		
Selling, general and administrative [note 21]	6,188,898	6,537,777
Research and development	851,512	892,045
Net finance costs [note 22]	1,061,267	1,525,275
Impairment of plasma atomization system [note 11]	1,981,410	-
Write-off of inventories [note 9]	386,121	-
	10,469,208	8,955,097
Net loss and comprehensive loss	(9,171,116)	(7,845,800)
Basic and diluted loss per share	(0.07)	(0.06)
Weighted average number of common shares - basic and diluted	137,382,323	122,986,656

The accompanying notes form an integral part of the financial statements.

PyroGenesis Canada Inc.

Statements of Changes in Shareholders' (Deficiency) Equity

	Number of Class A common shares	Class A common shares and warrants	Contributed Surplus	Equity portion of convertible debentures	Deficit	Total
		\$	\$	\$	\$	\$
Balance - December 31, 2018	133,501,051	42,863,456	6,795,274	401,760	(51,066,540)	(1,006,050)
Private placements [note 19]	6,418,400	3,722,472	-	-	-	3,722,472
Share issue expenses [note 19]	-	(106,395)	-	-	-	(106,395)
Shares issued upon exercise of stock options [note 19]	1,384,000	593,710	(287,350)	-	-	306,360
Share-based payments	-	-	171,806	-	-	171,806
Net loss and comprehensive loss	-	-	-	-	(9,171,116)	(9,171,116)
Balance – December 31, 2019	141,303,451	47,073,243	6,679,730	401,760	(60,237,656)	(6,082,923)
Balance - December 31, 2017	112,698,081	30,336,865	6,147,638	572,582	(43,200,708)	(6,143,623)
Adoption of new accounting policy					(20,032)	(20,032)
Adjusted balance, January 1, 2018	112,698,081	30,336,865	6,147,638	572,582	(43,220,740)	(6,163,655)
Private placements	10,805,423	6,654,917	-	-	-	6,654,917
Share issue expenses [note 19]	-	(290,804)	-	-	-	(290,804)
Shares issued in settlement of long-term debt	5,285,714	3,327,571	-	-	-	3,327,571
Shares issued in settlement of accounts payable	1,112,000	644,960	-	-	-	644,960
Shares issued in settlement of convertible debentures	1,258,333	755,000	-	-	-	755,000
Shares issued upon exercise of warrants	1,797,500	629,125	-	-	-	629,125
Shares issued upon exercise of stock options	544,000	233,240	(93,920)	-	-	139,320
Share-based payments	-	-	673,249	-	-	673,249
Equity of convertible debentures reimbursed	-	572,582	-	(572,582)	-	-
Issuance of convertible debentures	-	-	-	401,760	-	401,760
Below market element of short term and promissory notes	-	-	68,307	-	-	68,307
Net loss and comprehensive loss	-	-	-	-	(7,845,800)	(7,845,800)
Balance – December 31, 2018	133,501,051	42,863,456	6,795,274	401,760	(51,066,540)	(1,006,050)

The accompanying notes form an integral part of the financial statements.

PyroGenesis Canada Inc.

Statements of Cash Flows

For the years ended December 31, 2019 and 2018

Years ended December 31,

	2019 \$	2018 \$
Cash flows provided by (used in)		
Operating activities		
Net loss	(9,171,116)	(7,845,800)
Adjustments for:		
Share-based payments	171,807	673,249
Depreciation on property and equipment [note 11]	168,835	212,621
Depreciation of right-of-use assets [note 12]	359,783	-
Amortization of intangibles assets [note 13]	20,133	60,326
Finance costs	1,237,502	708,391
Change in fair value of investments	(176,237)	919,463
Dividend in kind	-	(102,579)
Impairment of property and equipment included in cost of sales and services [note 12]	1,981,410	-
Write-off of inventory	386,121	-
Other	-	(20,032)
	(5,021,762)	(5,394,361)
Net change in non-cash operating working capital items [note 20]	1,849,567	2,439,731
	(3,172,195)	(2,954,630)
Investing activities		
Additions to inventories	(13,357)	(259,097)
Purchase of property and equipment [note 11]	(822,953)	(1,138,541)
Additions to intangible assets [note 13]	(165,673)	(316,345)
Purchase of investments [note 10]	-	(1,950,000)
Disposal of investments [note 10]	261,000	-
Variation of deposits	(126,615)	-
	(867,598)	(3,663,983)
Financing activities		
Interest paid	(572,860)	(323,358)
Repayment of term loans [note 16]	-	(2,450,000)
Repayment of SR&ED and term loans [note 16]	(247,200)	(290,200)
Repayment of lease liabilities [note 12]	(131,321)	-
Repayment of capital lease obligations [note 17]	-	(12,550)
Repayment of convertible debentures [note 18]	-	(3,245,000)
Proceeds from issuance of shares upon exercise of warrants [note 19]	-	629,125
Proceeds from issuance of shares upon exercise of stock options [note 19]	306,360	139,320
Proceeds from issuance of other term loans, net of financing costs [note 16]	458,187	3,145,000
Proceeds from issuance of shares [note 19]	3,722,472	6,654,917
Share issue costs [note 19]	(106,395)	(290,804)
Net proceeds from issuance of convertible debentures [note 18]	-	2,684,298
	3,429,243	6,640,748
Net (decrease) increase in cash	(610,550)	22,135
Cash - beginning of year	644,981	622,846
Cash - end of year	34,431	644,981

PyroGenesis Canada Inc.

Statements of Cash Flows

For the years ended December 31, 2019 and 2018

Supplemental cash flow disclosure

Non-cash transactions:

Purchase of property and equipment under finance lease obligations	-	25,542
Purchase of intangible assets included in accounts payable	31,484	-
Purchase of property and equipment included in accounts payable	166,638	7,485
Interest included in accounts payables	259,447	
Cost reduction of property and equipment included in investment tax credits receivable	80,146	-
Issuance of common shares in settlement of convertible debentures	-	755,000
Issuance of common shares in settlement of accounts payable	-	244,960
Issuance of common shares in settlement of (IP debt) included in loans	-	111,928
Issuance of common shares in settlement of (IP debt) included in accounts payable	-	3,215,643
Issuance of common shares in settlement of short-term loans	-	400,000
Below market element of promissory notes	-	58,607
Interest accretion on short-term loans to contributed surplus	-	9,700
Other equity reclassified in contributed surplus	-	120,865
Equity component of convertible debenture	-	401,760
Equity component of convertible debenture reimbursed in contributed surplus	-	572,582
Non-derivative financial liability component of convertible loans	12,800	-
Initial recognition of lease liabilities and right-of-use assets [note 12]:		
Right-of-use assets	4,102,552	-
Lease liabilities	4,116,347	-
Accounts payable and deferred leases reclassified in right-of-use assets	11,333	-
Computer equipment reclassified in right-of-use assets	29,266	-
Capital lease obligations reclassified in lease liabilities	31,728	-

The accompanying notes form an integral part of the financial statements

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

1. Nature of operations and going concern disclosure

(a) Nature of operations

PyroGenesis Canada Inc. (the "Company"), incorporated under the laws of the *Canada Business Corporations Act*, was formed on July 11, 2011. The Company owns patents of advanced waste treatment systems technology and designs, develops, manufactures and commercialises advanced plasma processes and systems. The Company is domiciled at 1744 William Street, Suite 200, Montreal, Quebec. The Company is publicly traded on the TSX Venture Exchange under the Symbol "PYR" on the OTCQB in the USA under the symbol "PYRNF" and on the Frankfurt Stock Exchange (FSX) under the symbol "8PY".

(b) Going concern

These financial statements have been prepared on the going concern basis, which presumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for the foreseeable future.

The Company is subject to a number of risks and uncertainty associated with the successful development of its products and with the financing requirements of its operations. The achievement of profitable operations is dependent upon future events, including successful development and introduction of new products to its family of products and obtaining adequate financing.

The Company has incurred, in the last several years, operating losses and negative cash flow from operations, resulting in an accumulated deficit of \$60,237,656 as at December 31, 2019. Furthermore, as at December 31, 2019, the Company's current liabilities and expected level of expenses for the next twelve months exceed cash on hand of \$34,431. The Company currently has no committed sources of financing available. The Company has relied upon external financings to fund its operations in the past, primarily through the issuance of equity, debt, and convertible debentures, as well as from investment tax credits.

The Company's business plan is dependent upon the successful completion and the receipt of payments from contracts completed and to be completed within the next twelve months, the attainment of profitable operations, and upon raising additional funds to finance operations within and beyond the next twelve months. 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. If the Company is unable to obtain sufficient additional financing, it may have to curtail operations and development activities, any of which could harm the business, financial condition and results of operations.

These conditions indicate the existence of a material uncertainty that may cast significant doubt about the Company's ability to continue operating as a going concern and realize its assets and settle its liabilities and commitments in the normal course of business.

The financial statements have been prepared on a going concern basis and do not include any adjustments to the amounts and classifications of the assets and liabilities that might be necessary should the Company be unable to achieve its plan and continue in business. If the going concern assumption were not appropriate for these financial statements then adjustments would be necessary to the carrying value of assets and liabilities, the reported expenses and the statements of financial position classifications used. Such adjustments could be material.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

2. Basis of preparation

(a) Statement of compliance

These financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). These financial statements were approved and authorized for issuance by the Board of Directors on June 15, 2020.

(b) Functional and presentation currency

These financial statements are presented in Canadian dollars, which is the Company's functional currency.

(c) Basis of measurement

These financial statements have been prepared on the historical cost basis except for the investments which are accounted for at fair value.

3. Changes in significant accounting policies

On January 1, 2019, the Company adopted the following new or amended IFRS standards and Interpretations of IFRS ("Interpretations"):

a) IFRS 16 - *Leases*

In January 2016, the IASB released IFRS 16, *Leases*, which replaced the previous leases standard, IAS 17, *Leases*, and related interpretations. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract, the customer (lessee) and the supplier (lessor). IFRS 16 eliminates the classification of leases as either operating leases or finance leases, introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value.

The Company has adopted IFRS 16 using the modified retrospective method of adoption, with the effect of initially applying this standard recognized at the date of initial application, i.e. January 1, 2019. Accordingly, the cumulative effect of initially applying IFRS 16, if any, has been recognized as an adjustment to the opening balance of retained earnings as at January 1, 2019 and the comparative information presented for 2018 has not been restated, i.e. it is presented, as previously reported, under IAS 17 and related interpretations.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

3. Changes in significant accounting policies (continued)

i. Transition options and practical expedients

The Company has elected to apply the following transition options and practical expedients available under IFRS 16:

- Lease definition: to grandfather the assessment of which transactions are leases on the date of initial application. Accordingly, the Company applied IFRS 16 only to contracts that were previously identified as leases under IAS 17, *Leases*, and IFRIC 4, *Determining whether an Arrangement contains a Lease*, and applied the definition of leases under IFRS 16 only to contracts entered on or after the date of initial application;
- Impairment and onerous leases: to rely on the Company's previous assessment of whether leases are onerous in accordance with IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, immediately before the date of initial application as an alternative to performing an impairment review;
- Initial direct costs: to exclude initial direct costs from the measurement of the right-of-use asset at the date of initial application;
- Use of hindsight: to use hindsight, for example, in determining the lease term of contracts that contain options to extend or terminate the lease on the date of initial application;

In addition, the Company elected not to apply the new lease accounting model to a lease ending within 12 months of the date of initial application.

ii. Impact of adopting IFRS 16

The most significant impact of adopting IFRS 16 related to the accounting for the Company's operating leases, as the nature of expenses recognized to most of the Company's leases changed IFRS 16 replaced the straight-line operating lease expense recognized under the prior standard with a depreciation charge for right-of-use assets and interest expense on lease liabilities.

Under IAS 17, the Company classified each of its leases at the inception date as either a finance lease or an operating lease, based on the extent to which risks and rewards of ownership were transferred to the Company. Lease payments related to the Company's operating leases were recognized as rent expense in the income statements on a straight-line basis over the lease term and presented as part of cash flows from operating activities in the statements of cash flows. Any deferred rent was recognized under Accounts payable and accrued liabilities in the statements of financial position.

Upon adoption of IFRS 16, the Company recognized lease liabilities and right-of-use assets for leases that were classified as operating leases under IAS 17. Lease liabilities were measured at the present value of the remaining lease payments, discounted at the Company's incremental borrowing rate as at January 1, 2019. Right-of-use assets were measured at an amount equal to the lease liability, adjusted by the amount of any accrued lease payments.

The carrying amount of the lease assets and lease liabilities that were classified as finance leases and measured applying IAS 17 immediately before the date of initial application were reclassified to the right-of-use assets and the lease liabilities at the date of initial application.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

3. Changes in significant accounting policies (continued)

iii. Reconciliation of operating lease commitments to lease liabilities recognized

When measuring lease liabilities, the Company discounted lease payments using its incremental borrowing rate as at January 1, 2019. The weighted average incremental borrowing rate applied as at January 1, 2019 was 6.60%.

The lease liabilities as at January 1, 2019 can be reconciled to the operating lease commitments as at December 31, 2018 as follows:

	\$
Operating lease commitments as at December 31, 2018	1,694,410
Lease payments due in periods covered by extension options that are included in the lease term and not previously included in the operating lease commitments	1,067,012
Purchase options reasonably certain to be exercised that are included in the lease term and not previously included in the operating lease commitments	2,750,000
Recognition exemption for leases with less than 12 months of lease term at transition	(7,869)
Variable operating expenses included in the operating lease commitment as at January 1, 2019 not included in the calculation of the lease liabilities under IFRS 16	(424,440)
Additional lease liabilities as a result of the initial application of IFRS 16 as at January 1, 2019	5,079,113
Accretion using the incremental borrowing interest rate as at January 1, 2019	(994,494)
Discounted using the incremental borrowing rate as at January 1, 2019	4,084,619
Obligation under finance leases reclassified as lease liabilities as at January 1, 2019	31,728
Lease liabilities as at January 1, 2019	4,116,347

The Company has recognised \$4,102,552 of right-of-use assets and \$4,116,347 of lease liabilities upon transition to IFRS 16. The difference of \$11,333 represents deferred rent included in accounts payable reclassified against the right-of-use assets at the date of transition. The net book value of the computer equipment under finance lease in the amount of \$29,266 and the related liabilities of \$31,728 were reclassified in the right-of-use assets and the lease liabilities respectively.

b) Annual Improvements to IFRS Standards 2015–2017 Cycle

In December 2017, the IASB published Annual Improvements to IFRS Standards 2015–2017 Cycle, which includes amendments to the following:

- Income tax consequences under IAS 12, *Income Taxes*, of payments on financial instruments classified as equity.
- Borrowing costs eligible for capitalization under IAS 23, *Borrowing Costs*.

The Company adopted these amendments in its financial statements beginning on January 1, 2019. The adoption of these amendments did not have a material impact on the Company's financial statements.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies

Except for the changes in significant accounting policies described above in Note 3, the accounting policies set out below have been applied consistently in the preparation of the financial statements of all years presented and have been applied consistently by the Company. Certain comparative information in the statements of financial position and statements of changes in shareholders' (deficiency) equity have been reclassified to conform with the financial statement presentation adopted in the current year.

(a) Revenue recognition

Revenue from contracts is recognized for each performance obligation either over a period of time or at a point in time, depending on which method reflects the transfer of control of the goods and services underlying the particular performance obligation.

i) Long-term contracts

Long-term contracts involve made-to-order customized equipment and machines and are generally priced on a fixed fee basis. Under these contracts, the equipment or machines are made to a customer's specifications and if a contract is terminated by the customer, the Company is entitled to the greater of the amounts invoiced at the termination date and the reimbursement of the costs incurred to date of termination, including a reasonable margin.

Revenue relating to long-term contracts is recognised over time based on the measure of progress determined by the Company's efforts or inputs towards satisfying the performance obligation relative to the total expected inputs. The degree of completion is assessed based on the proportion of total costs and/or hours incurred to date, compared to total costs and/or hours anticipated to provide the service under the entire contract, excluding the effects of inputs that do not depict performance, e.g. uninstalled materials. For long-term contracts with uninstalled materials, the Company adjusts the transaction price and recognises revenue on uninstalled materials to the extent of those costs incurred, i.e. at a zero percent profit margin, when certain conditions are met.

Estimates are required to determine anticipated costs and/or hours on long-term contracts. A provision is made for the entire amount of expected loss, if any, in the period in which they are first determinable.

Contract modifications are changes in scope and/or price that are approved by the parties to the contract. Approval may be written, oral or implied by customary business practices, and are legally enforceable. The Company accounts for modifications as a separate contract if the modifications add distinct goods or services that are priced commensurate with stand-alone selling prices or if the remaining goods or services are distinct from those already transferred, otherwise modifications are accounted for as part of the original contract.

Costs and profits in excess of billings on uncompleted contracts and trade receivables are both rights to consideration in exchange for goods or services that the Company has transferred to a customer, however the classification depends on whether such right is only conditional on the passage of time (trade receivables) or if it is also conditional on something else (costs and profits in excess of billings on uncompleted contracts), such as the satisfaction of further performance obligations under the contract. Billing in excess of costs and profits on uncompleted contracts is the cumulative amount received and contractually receivable by the Company that exceeds the right to consideration resulting from the Company's performance under a given contract.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies (continued)

ii) Sales of goods

Revenue related to sales of goods, which may include powders and spare parts are measured based on the consideration specified in contracts with customers. The Company recognizes revenue at a point in time when it transfers control of the goods to the buyer. This is generally at the time the customer obtains legal title to the product and when it is physically transferred to the custody transfer point agreed with the customer.

(b) Foreign currency translation

Foreign currency balances are translated at year-end exchange rates for monetary items and at historical rates for non-monetary items. Revenues and expenses are translated using average exchange rates prevailing at the time of the transaction. Translation gains or losses are included in the determination of comprehensive loss.

(c) Inventories

Inventories are composed of raw materials and finished goods. Inventories are valued at the lower of cost and net realizable value. The cost of inventories is based on the first-in, first-out principle. Cost comprises all costs of purchases and costs directly related to the conversion of raw materials to finished goods. Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and selling costs. Inventory held for sale pending receipt of export permits is classified as non-current assets.

(d) Deferred taxes

i) Current tax

Current tax assets and liabilities for the current and prior years are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted by the statements of financial position date.

ii) Deferred tax

Deferred tax is provided using the liability method, providing for temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements. The temporary difference is not provided for if it arises from the initial recognition of goodwill or the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. The amount of deferred tax provided is based on the expected manner of realization or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the financial position reporting date and whose implementation is expected over the period in which the deferred tax is realized or recovered. A deferred tax asset is recognized only to the extent that it is probable that future taxable profits will be available against which the asset can be used.

Deferred tax assets and liabilities are presented as non-current. Assets and liabilities are offset where the entity has a legally enforceable right to offset current tax assets and liabilities or deferred tax assets and liabilities, and the respective assets and liabilities relate to income taxes levied by the same taxation authority on the same taxable entity or different taxable entities which intend to settle the liabilities and assets on a net basis.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies (continued)

(e) Loss per share

The Company presents basic loss per share data for its common shares. Basic loss per share is computed by dividing net loss by the weighted average number of common shares outstanding during the year. Diluted loss per share is computed similarly to basic earnings per share, except that the weighted average number of shares outstanding is increased to include shares from the assumed exercise of stock options and share purchase warrants, if dilutive. The number of additional shares is calculated by assuming that outstanding share options and warrants were exercised and that the proceeds from such exercises were used to acquire common shares at the average market price during the year. For the years ended December 31, 2019 and 2018, potential shares from all outstanding stock options, share purchase warrants and convertible debentures have been excluded from the calculation of diluted loss per share as their inclusion is considered anti-dilutive in periods when a loss is incurred.

(f) Property and equipment

Property and equipment are measured at cost less accumulated depreciation and accumulated impairment losses if applicable. Cost includes expenditures that are directly attributable to the acquisition of the asset and bringing the asset into operation. Borrowing costs capitalized to asset under development represents the interest expense calculated under the effective interest method and does not include any fair value adjustments of investments designated at fair value through profit and loss. Investment tax credits related to the purchase or development of property and equipment are recorded in reduction of the cost. When major parts of an item of property and equipment have different useful lives, they are accounted for separately. Property and equipment are depreciated from the acquisition date over their respective useful life. Depreciation of an asset under construction begins when it is available for use, i.e. when it is in the location and condition necessary for it to be capable of operating in the manner intended by the Company.

Depreciation is calculated using the following methods and rates:

Computer equipment	Straight line over 2 years
Machinery and equipment	Straight line over 5 years
Automobile	Straight line over 3 years
Leasehold improvements	The lesser of the term of the lease or the useful life (20 years)
Plasma Atomization System	Straight line over 20 years

Impairment – non-financial assets

The carrying amounts of the Company's non-financial assets are assessed at each reporting date to determine whether there is an indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

Impairment losses recognized in prior periods are assessed at each reporting date as to whether there are any indications that the previously recognized losses may no longer exist or may be decreased. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies (continued)

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

(g) Leases

The Company did not restate prior year comparative information under the modified retrospective approach upon the implementation of IFRS 16. Therefore, the comparative information continues to be reported under applicable accounting policies under International Accounting Standard (“IAS”) 17, “Leases” (“IAS 17”) and related interpretations.

For prior years, payments made under operating leases were recognized in net earnings on a straight-line basis over the term of the lease. Minimum lease payments made under finance leases were apportioned between the finance expense and the reduction of the outstanding liability. The finance expense was allocated to each year during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Under IFRS 16, at inception, the Company assesses whether a contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Company recognizes a right-of-use asset and a lease liability at the commencement date of the lease, i.e. the date the underlying asset is available for use.

Right-of-use assets

Right-of-use assets are measured at cost, less any accumulated depreciation and accumulated impairment losses, and adjusted for any remeasurement of lease liabilities. Cost of right-of-use assets is comprised of:

- the initial measurement amount of the lease liabilities recognized.
- any lease payments made at or before the commencement date, less any lease incentives received;
- any initial direct costs incurred; and
- an estimate of costs to dismantle and remove the underlying asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease contract.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Company expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset based on periods detailed above. The depreciation starts at the commencement date of the lease. Right-of-use assets are assessed for impairment whenever there is an indication that the right-of-use assets may be impaired.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies (continued)

Lease liabilities

Lease liabilities are initially measured at the present value of the lease payments that are not paid at the commencement date over the lease term. The present value of the lease payments is determined using the lessee's incremental borrowing rate at the commencement date if the interest rate implicit in the lease is not readily determinable. The incremental borrowing rate is a function of the lessee's incremental borrowing rate, the nature of the underlying asset, the location of the asset, the length of the lease and the currency of the lease contract. Generally, the Company uses the lessee's incremental borrowing rate for the present value. At the commencement date, lease payments generally include fixed payments, less any lease incentives receivable, variable lease payments that depend on an index (e.g. based on inflation index) or a specified rate, and payments of penalties for terminating the lease, if the lease term reflects the lessee exercising the option to terminate the lease. Lease payments also include amounts expected to be paid under residual value guarantees and the exercise price of a purchase option if the Company is reasonably certain to exercise that option.

Variable lease payments that do not depend on an index or a specified rate are not included in the measurement of lease liabilities but instead are recognized as expenses in the period in which the event or condition that triggers the payment occurs.

After the commencement date, the carrying amount of lease liabilities is increased to reflect the accretion of interest and reduced to reflect lease payments made. In addition, the carrying amount of lease liabilities is remeasured when there is a change in future lease payments arising from a change in an index or specified rate, if there is a modification to the lease terms and conditions, a change in the estimate of the amount expected to be payable under residual value guarantee, or if the Company changes its assessment of whether it will exercise a termination, extension or purchase option. The remeasurement amount of the lease liabilities is recognized as an adjustment to the right-of-use asset, or in the profit and loss statement when the carrying amount of the right-of-use asset is reduced to zero.

Classification and presentation of lease-related expenses

Depreciation charge for right-of-use assets, expenses related to variable lease payments not included in the measurement of lease liabilities and loss (gain) related to lease modifications are allocated in the Company's profit and loss statement based on their function within the Company, while interest expense on lease liabilities is presented within finance costs.

Cash flow classification

Lease payments related to the principal portion of the lease liabilities are classified as cash flows from financing activities while lease payments related to the interest portion of the lease liabilities are classified as interest paid within cash flows from financing activities. Lease incentives received are classified as cash flows from investing activities. Variable lease payments not included in the measurement of lease liabilities are classified as cash flows from operating activities.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies (continued)

(h) Government assistance and investment tax credits

Investment tax credits are comprised of scientific research and experimental development tax credits. Government assistance and investment tax credits are recognized when there is reasonable assurance of their recovery and recorded as a reduction of the related expense or cost of the asset acquired, as applicable. Investment tax credits are subject to the customary approvals by the pertinent tax authorities. Adjustments required, if any, are reflected in the year when such assessments are received.

(i) Intangible assets

Acquired intangible assets are measured at cost on initial recognition. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses.

Intangible assets with finite lives are amortized over the useful life of the asset and assessed for impairment whenever there is an indication of impairment. Amortization expense on the intangible assets with finite lives is recognized in the statements of comprehensive loss.

Research costs are charged to comprehensive loss in the year they are incurred, net of related investment tax credits. Development costs are charged to comprehensive loss in the year they are incurred net of related investment tax credits unless they meet specific criteria related to technical, market and financial feasibility in order to be recognized as intangible assets which include:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the Company has the intention to complete and the ability to use or sell the asset;
- the asset will generate future economic benefits;
- the Company has the resources to complete the asset; and
- ability to measure reliably the expenditure during development.

Costs to establish patents for internally developed technology are considered development costs and are charged to comprehensive loss in the year they are incurred unless they meet specific criteria related to technical, market and financial feasibility. Patent costs include legal and other advisor fees to obtain patents, and patent application fees.

Amortization of the development costs is calculated on a straight-line basis over the remaining useful life of the related patent and begins when development is complete. During the period of development, the asset is tested annually for impairment.

The recoverable amount of an asset or cash-generating unit (CGU) is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Assets that cannot be tested individually are grouped into the smallest independent group of assets that generate cash inflows from continuing use. For the purposes of testing non-financial assets for impairment, management has identified one CGU.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies (continued)

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its recoverable amount. Impairment losses are recognized in the statement of comprehensive loss. Impairment losses recognized in respect of the CGU are allocated first to reduce the carrying amount of goodwill allocated to the units, and then to reduce the carrying amounts on a pro-rata basis of the other assets in the unit.

Amortization is calculated on a straight-line basis:

	Useful life
Licenses	5 to 10 years
Patents and Development costs	1 to 21 years

(j) Employee benefits

Share-based payments

The Company applies a fair value-based method of accounting to all share-based payments. Employee and director stock options are measured at their fair value of each tranche on the grant date and recognized in its respective vesting period. Non-employee stock options are measured when the services are rendered by the consultant at the fair value of the services received, if the fair value can be measured reliably. In the case the fair value of the services cannot be measured reliably, the services are measured indirectly using the fair value of the equity instruments granted. If there are unidentifiable services, then they are measured at grant date. The cost of stock options is presented as share-based payment expense. On the exercise of stock options, share capital is credited for the consideration received and for the fair value amounts previously credited to contributed surplus. The Company uses the Black-Scholes option-pricing model to estimate the fair value of share-based payments.

Deferred profit-sharing plan

The Company established a yearly Deferred Profit-Sharing Plan ("DPSP") for all eligible employees who have materially and significantly contributed to the prosperity and profits of the Company. The significance of any contribution of any employee to the prosperity and profits of the Company for purposes of eligibility in the DPSP is determined by the Board of Directors of the Company upon such relevant information as the Board, in its sole discretion, may find relevant. All related persons to the Company are excluded from participating in the DPSP.

For all eligible employees, the Company is required to contribute to the DPSP out of the profits of the Company. The amount of the Company's contribution will be such amount which, in the opinion of its Board of Directors, is warranted by the profits and overall financial position of the Company. During the year, the Company contributed \$Nil to the DPSP. Obligations for contributions to the DPSP are recognized as an employee benefit expense in the statement of comprehensive loss in the periods during which services are rendered by employees.

Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies (continued)

A liability is recognised for the amount expected to be paid under the short-term incentive plan if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

Extinguishing financial liabilities with equity instruments

When equity instruments issued to a creditor to extinguish all or part of a financial liability are recognized initially, the Company measures them at the fair value of the equity instruments issued, unless that fair value cannot be reliably measured. If the fair value of the equity instruments issued cannot be reliably measured, then the equity instruments shall be measured to reflect the fair value of the financial liability extinguished.

Transactions with shareholders

Transactions with shareholders where the Company is receiving a benefit from the shareholder because an independent third party would not have been transacted at the same value is split into a capital transaction and a deemed third-party transaction. Proceeds from the deemed third-party transaction measured at fair value is recognized in the profit or loss, with the remaining proceeds being recognized directly in equity as a contribution from shareholders in the contributed surplus.

Financial Instruments

Financial assets are classified at amortized cost, fair value through profit or loss ("FVTPL") or fair value through other comprehensive income ("FVOCI") based on the entity's business model for managing the financial assets and the contractual cash flow characteristics of these assets. Assessment and decision on the business model approach used is an accounting judgment.

A financial asset is measured at amortized cost if it is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. The Company includes in this category cash and trade accounts receivable.

A financial asset is measured at fair value through profit or loss ("FVTPL") if:

- (a) Its contractual terms do not give rise to cash flows on specified dates that are solely payments of principal and interest (SPPI) on the principal amount outstanding; or
- (b) It is not held within a business model whose objective is either to collect contractual cash flows, or to both collect contractual cash flows and sell; or
- (c) At initial recognition, it is irrevocably designated as measured at FVTPL when doing so eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases.

The Company includes in this category investments in equity instruments.

Change in fair value of financial liabilities attributable to changes in the entity's own credit risk are to be presented in other comprehensive income unless they affect amounts recorded in income.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies (continued)

All financial liabilities, other than those measured at fair value through profit or loss, are included in the financial liabilities measured at amortized cost. The Company includes in this category accounts payable and accrued liabilities, term loans, long-term debt and convertible debentures.

Recognition:

The Company recognizes a financial asset or a financial liability when it becomes a party to the contractual provisions of the instrument.

Purchases or sales of financial assets that require delivery of assets within the time frame generally established by regulation or convention in the market place (regular way trades) are recognized on the trade date, i.e. the date that the Company commits to purchase or sell the asset.

Initial measurement

Financial assets and liabilities (other than financial assets at FVTPL) are measured initially at their fair value plus any directly attributable incremental costs of acquisition or issue.

Financial assets and financial liabilities at FVTPL are recorded in the statement of financial position at fair value. All transaction costs for such instruments are recognized directly in profit or loss.

Subsequent measurement

Financial assets (other than financial assets at FVTPL) are measured at amortized cost using the effective interest method less any allowance for impairment. Gains and losses are recognized in profit or loss when the debt instruments are derecognized or impaired, as well as through the amortization process.

Financial liabilities are measured at amortized cost using the effective interest method. Gains and losses are recognized in profit or loss when the liabilities are derecognized, as well as through the amortization process.

Derecognition

A financial asset is derecognized where the rights to receive cash flows from the asset have expired, or the Company has transferred its rights to receive cash flows from the asset. The Company derecognizes a financial liability when the obligation under the liability is discharged, cancelled or expired.

Offsetting of financial instruments

Financial assets and financial liabilities are offset, and the net amount reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

Impairment of financial instruments

The Company applies the "expected credit loss" ("ECL") model to financial assets measured at amortized cost. The Company's financial assets subject to the new impairment model are cash, trade accounts receivable and deposits.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies (continued)

The trade accounts receivable have no financing component and have maturities of less than 12 months at amortized cost and, as such, the Company applies an approach similar to the simplified approach for expected credit losses (ECLs) to all its trade accounts receivable. Therefore, the Company does not track changes in credit risk, but instead recognizes a loss allowance based on lifetime ECLs at each reporting date.

The Company's approach to ECLs reflects a probability-weighted outcome, the time value of money and reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

The Company uses the provision matrix as a practical expedient to measure ECLs on trade receivables, based on days past due for groupings of receivables with similar loss patterns. The provision matrix is based on historical observed loss rates over the expected life of the receivables and is adjusted for forward-looking estimates.

The impairment guidance using the ELC model did not have a significant impact on the carrying amounts of the Company's trade accounts receivable as the Company has had negligible credit losses.

Write-off

The gross carrying amount of a financial asset is written off when the Company has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof.

Compound Financial Instrument

Compound financial instrument issued by the Company comprises convertible debentures that can be converted into common shares at the option of the holder, and the number of shares to be issued does not vary with changes in their fair value.

The component parts of the compound instrument issued by the Company are initially classified separately as financial liabilities and equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument. The conversion option that will be settled by the exchange of a fixed amount of cash or another financial asset for a fixed number of the Company's own equity instruments is an equity instrument.

At the date the convertible debentures are issued, the liability component is initially recognized at the fair value of similar debt instruments which do not have an equity conversion option. The initial amount of the liability component is determined by discounting the face value of the convertible debentures using a rate of interest prevailing for similar non-convertible instruments at the date of issue for instruments of similar terms and risks. The conversion option classified as the equity component is determined by deducting the amount of the liability component from the gross proceeds. The equity component is recognized net of income tax effects within the other equity account.

Subsequently, the liability component is accounted for at amortized cost and is accreted using the effective interest method, up to the face value of the convertible debentures during the period they are outstanding. Interest expense on the convertible debentures is composed of the interest calculated on the face value of the convertible debentures and a non-cash notional interest representing the accretion of the carrying value of the convertible debentures. The equity component is not remeasured.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

4. Significant accounting policies (continued)

The conversion option classified as equity remains in the other equity account until the conversion option is exercised, in which case, the balance recognized in other equity is transferred to share capital. When the conversion option remains unexercised at the maturity date of the convertible debentures, the balance recognized in other equity will be transferred to contributed surplus. No gain or loss is recognized in the consolidated income statement upon conversion or expiration of the conversion option.

Transaction costs related to the issuance of convertible debentures are allocated to the liability and equity components in proportion to the allocation of the gross proceeds. Transaction costs relating to the equity component are recognized directly in other equity. Transaction costs relating to the liability component are included in the carrying amount of the liability component and are amortized over the term of the convertible debentures using the effective interest method.

Effective Interest Method

The effective interest method is a method of calculating the amortized cost of a financial asset/financial liability and of allocating interest income/expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts/payments (including all fees and points paid or received that

form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial instrument, or (when appropriate) a shorter period, to the net carrying amount on initial recognition.

5. Significant accounting judgments, estimates and assumptions

The preparation of financial statements requires management to make judgments, estimates and assumptions based on currently available information that affect the reported amounts of assets, liabilities and contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Estimates and judgments are continuously evaluated and are based on management's experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. However, actual results could differ from those estimated. By their very nature, these estimates are subject to measurement uncertainty and the effect of any changes in estimates on the financial statements of future periods could be material.

In the process of applying the Company's accounting policies, management has made the following judgments, estimates, and assumptions which have the most significant effect on the amounts recognized in the financial statements.

(a) Going concern

Information about critical judgements in applying accounting policies that have the most significant effect on the amounts recognised in the financial statements relates to the assessment of the Company's ability to continue as a going concern [note 1 (b)].

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

5. Significant accounting judgments, estimates and assumptions (continued)

(b) Assessment of impairment of property and equipment and intangible assets

At each reporting date, the Company reviews the carrying amounts of its property and equipment to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or cash generating units ("CGUs"). The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU. An impairment loss is recognised if the carrying amount of an asset or CGU exceeds its recoverable amount. Impairment losses are recognised in profit or loss.

An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(c) Revenue recognition

Revenue recognition for long-term contracts completion requires the use of estimates to determine the recorded amount of revenues, costs in excess of billings and billings in excess of costs and profits on uncompleted contracts.

The determination of anticipated costs for completing a contract is based on estimates that can be affected by a variety of factors, including the cost of materials, labour and sub-contractors, as well as potential claims from customers and subcontractors.

As risks and uncertainties are different for each project, the sources of variations between anticipated costs and actual costs incurred will also vary by project. The determination of estimates is based on the Company's business practices as well as its historical experience. Estimates are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised.

Given this estimation process, it is possible that changes in future conditions could cause a material change in the recognized amount of revenues and costs and profits in excess of billings on uncompleted contracts and accrued expenses.

Agreements that contain multiple deliverables require the use of judgment to determine whether they contain separately identifiable performance obligations and to allocate the consideration received to each performance obligation.

(d) Stock-based payments

The Company uses the fair value method of valuing compensation expense associated with the Company's stock option plan. Estimating fair value requires determining the most appropriate valuation model for a grant of equity instruments, which is dependent on the terms and conditions of the grant. This also requires determining the most appropriate inputs to the valuation model including the expected life of the option, volatility, expected forfeitures and distribution yield. The assumptions and models are discussed in note 19.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

5. Significant accounting judgments, estimates and assumptions (continued)

(e) Useful lives of property and equipment and intangible assets

The Company estimates the useful lives of property and equipment based on the period over which the assets are expected to be available for use. The estimated useful lives of property and equipment are reviewed periodically and are updated if expectations differ from previous estimates due to physical wear and tear and legal or other limits on the use of the relevant assets. In addition, the estimation of the useful lives of property and equipment are based on management's experience with similar assets. It is possible, however, that future results of operations could be materially affected by changes in the estimates brought about by changes in factors mentioned above. The amounts and timing of recorded expenses for any period would be affected by changes in these factors and circumstances. Useful lives, depreciation rates and residual values are reviewed at least annually.

(f) Assessment of investment tax credits

The investment tax credits are estimated by management based on quantitative and qualitative analysis and interpretation of various government programmes, related restrictions, limitations, definitions, and eligibility conditions. Uncertainty over the eligibility and final assessment by taxation authorities of investment tax credits is considered a significant accounting judgment. Management involves its technical staff and external specialists

in determining if the expenditures meet the requirements of the different tax credit claims. Management believes that its accruals for investment tax credit receivables are adequate for all claims based on its assessment of requirements of the tax credit claims.

(g) Intangible assets

The recognition of development costs as intangible assets requires management's judgments to determine whether the required criteria for recognition are met including management estimates of future economic benefits.

(h) Fair value of investments

Where the fair values of investments recorded in the statement of financial position cannot be derived from active markets, they are determined using valuation techniques including the Black-Scholes models. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgment is required in establishing the fair values. The judgments include considerations of inputs such as the expected volatility and the expected life. Should any of the inputs to these models or changes in assumptions about these factors occur, this could affect the reported fair value of the investments.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

5. Significant accounting judgments, estimates and assumptions (continued)

(i) Right-of-use assets and lease liabilities

In determining the carrying amount of the right-of-use asset and corresponding lease liabilities, assumptions include the non-cancellable term of the lease plus periods covered by an option to renew or purchase the leases, estimated useful lives of the related assets, and incremental borrowing rate. Renewal and purchase options are only included in the lease term if management is reasonably certain to renew. Management considers factors such as market conditions, comparable rental rates and similar property values. The Company is also required to estimate the incremental borrowing rate specific to each portfolio of leased assets with similar characteristics if the interest rate in the lease is not readily determined. Management determines the incremental borrowing rate using base rate for similar loans plus a risk premium.

6. Revenues

Revenues by product line:

The Company's revenues from long-term contracts and sales of goods are generated primarily from PUREVAP™ related sales of \$525,556 (2018 - \$1,781,009), DROSRITE™ related sales of \$560,916 (2018 - \$1,237,740), the development and support related to systems supplied to the U.S. Military of \$637,841 (2018 - \$1,451,998), torch related sales of \$2,323,351 (2018 - Nil), and other sales and services of \$766,314 (2018 - \$559,369).

The following is a summary of the Company's revenues by revenue recognition method:

	2019	2018
	\$	\$
Sales of goods under long-term contracts	4,585,337	4,867,667
Sales of goods in point of time	228,641	162,449
	4,813,978	5,030,116

See note 28 for sales by geographic area.

Transaction price allocated to remaining performance obligations

As at December 31, 2019, revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially satisfied) at the reporting date is \$6,011,159 (2018 - \$7,697,748). Revenue will be recognized as the Company satisfies its performance obligations under long-term contracts, which is expected to occur over the next 3 years.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

7. Accounts receivable

Details of accounts receivable were as follows:

	December 31, 2019	December 31, 2018
	\$	\$
1 – 30 days	71,423	281,984
31 – 60 days	9,483	178,667
61 – 90 days	17,753	86,567
Greater than 90 days	5,469	16,613
Total trade accounts receivable	104,128	563,831
Sales tax receivable	106,412	67,321
	210,540	631,152

There is no allowance for expected credit losses recorded as at December 31, 2019 and December 31, 2018.

8. Costs and profits in excess of billings on uncompleted contracts

As at December 31, 2019, the Company had four uncompleted contracts with total billings of \$89,256 which were less than total costs incurred and had recognized cumulative revenue of \$212,236 since those projects began. This compares with five contracts with total billings of \$1,087,339 which were less than total costs incurred and had recognized cumulative revenue of \$1,395,171 as at December 31, 2018.

Changes in costs and profits in excess of billings on uncompleted contracts during the year are explained by \$307,832 recognised at the beginning of the year being transferred to accounts receivable, and \$184,852 resulting from changes in the measure of progress.

9. Inventories

	December 31, 2019	December 31, 2018
	\$	\$
Powders	-	211,466
Raw Materials	-	168,904
Spare Parts	10,068	2,462
	10,068	382,832

The Company decided in 2019 to start building a new and improved Plasma Powder Production equipment with advanced technological improvements with regard to production output and operating costs. The powders and raw materials related to the old Plasma atomization system were no longer deemed to have any future value and were written down by \$386,121 to their net recoverable amounts of nil.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

10. Deposits and investments

	December 31, 2019	December 31, 2018
	\$	\$
Deposits	178,105	51,491
Investments:		
Beauce Gold Fields ("BGF") shares – level 1	133,354	102,579
HPQ Silicon Resources Inc. ("HPQ") shares - level 1	1,476,000	1,281,000
HPQ warrants – level 3	-	310,537
	1,787,459	1,745,607

Deposits include amounts paid to suppliers, rent and utilities.

Investment in BGF (TSXV: BGF) consists of 1,025,794 of common shares. The 1,025,794 common shares of BGF were received in December 2018 as dividend in kind from a spinoff of HPQ.

Investments in HPQ (TSXV: HPQ) comprise 18,450,000 common shares (21,350,000 - 2018) and 17,750,000 warrants (18,750,000 - 2018). 1,500,000 warrants have an exercise price of \$0.25 with an expiry date of November 21, 2020 and the remaining 16,250,000 warrants have an exercise price of \$0.17 with an expiry date of August 21, 2021.

16,250,000 common shares of HPQ and 16,250,000 warrants of HPQ were purchased in cash (\$1,950,000) in 2018. 2,500,000 common shares and 2,500,000 warrants were received in 2017 in lieu of payment of services rendered by the Company to HPQ. At the transaction dates, the non-monetary transactions were measured based on the fair value of the common shares and warrants received for a total amount of \$320,000. A gain from initial recognition of the warrants of \$24,017 in 2018 was deferred off balance sheet until realized.

	("BGF") shares – level 1		("HPQ") shares - level 1		HPQ warrants – level 3	
	Quantity	\$	Quantity	\$	Quantity	\$
Balance, December 31, 2017	-	-	5,100,000	561,000	3,300,000	-
Additions	1,025,794	102,579	16,250,000	1,300,000	16,250,000	650,000
Expired warrants	-	-	-	-	(800,000)	-
Change in the fair value	-	-	-	(580,000)	-	(339,463)
Balance, December 31, 2018	1,025,794	102,579	21,350,000	1,281,000	18,750,000	310,537
Disposals	-	-	(2,900,000)	(261,000)	-	-
Expired warrants	-	-	-	-	(1,000,000)	-
Change in the fair value	-	30,775	-	456,000	-	(310,537)
Balance, December 31, 2019	1,025,794	133,354	18,450,000	1,476,000	17,750,000	-

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

11. Property and equipment

	Computer equipment	Machinery and equipment	Automobile	Leasehold improvements	Equipment under construction	Total
	\$	\$	\$	\$	\$	\$
Cost						
Balance at December 31, 2017	491,833	1,621,899	21,912	83,215	1,879,455	4,098,314
Additions	58,031	-	-	821,297	288,681	1,168,009
Balance at December 31, 2018	549,864	1,621,899	21,912	904,512	2,168,136	5,266,323
Additions	21,654	-	-	9,539	922,917	954,110
Reclass to Equipment under construction	-	-	-	(749,045)	749,045	-
Reclass to right-of-use assets	(49,530)	-	-	-	-	(49,530)
Impairment	-	-	-	-	(2,168,136)	(2,168,136)
Balance at December 31, 2019	521,988	1,621,899	21,912	165,006	1,671,962	4,002,767
Accumulated depreciation						
Balance at December 31, 2017	447,155	1,308,952	15,523	79,190	-	1,850,820
Depreciation	32,647	62,590	1,917	10,046	105,421	212,621
Balance at December 31, 2018	479,802	1,371,542	17,440	89,236	105,421	2,063,441
Depreciation	32,368	50,071	1,342	3,749	81,305	168,835
Reclass to right-of-use assets	(20,264)	-	-	-	-	(20,264)
Impairment	-	-	-	-	(186,726)	(186,726)
Balance at December 31, 2019	491,906	1,421,613	18,782	92,985	-	2,025,286
Carrying amounts						
Balance at December 31, 2018	70,062	250,357	4,472	815,276	2,062,715	3,202,882
Balance at December 31, 2019	30,082	200,286	3,130	72,021	1,671,962	1,977,481

In 2019 the Company commenced construction on a new and improved Plasma Powder Production equipment with advanced technological improvements with regard to production output and operating costs. As a result, the existing powder production, Plasma atomization system, was no longer deemed to have any future benefit and was written down by \$1,981,410, to the net recoverable amount of nil.

Equipment under construction includes the leasehold improvements of a clean room and the costs related to building the new Plasma Powder Production equipment.

12. Leases

The Company has entered into lease contracts mainly for buildings and computer equipment, which expire at various dates through the year 2027. Some leases have extension or purchase options for various terms. Some lease payments are based on changes in price indices. The lease contracts do not impose any financial covenants.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

12. Leases (continued)

a) Right-of-use assets

	Land and building	Computer equipment	Total
	\$	\$	\$
Balance at January 1, 2019	4,073,286	29,266	4,102,552
Depreciation	(348,590)	(11,193)	(359,783)
Balance at December 31, 2019	3,724,696	18,073	3,742,769

b) Amount recognized in the statement of comprehensive loss

	2019
	\$
Depreciation of right-of-use assets	359,783
Interest on lease liabilities	258,288
Expense related to lease payments not included in the measurement of lease liabilities	7,264

Rent expense relating to operating leases under IAS 17 was \$504,445 in 2018.

c) Maturity analysis – contractual undiscounted cash flows of lease liabilities as at December 31, 2019

	\$
2020	389,152
2021	394,445
2022	3,088,912
2023	218,241
2024	213,402
Thereafter	444,588
	4,748,740

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

13. Intangible assets

	Licenses	Patents	Development costs	Total
	\$	\$	\$	\$
Cost				
Balance at December 31, 2017	8,409,051	160,719	243,294	8,813,064
Additions	-	214,610	1,577	216,187
Balance at December 31, 2018	8,409,051	375,329	244,871	9,029,251
Additions	-	197,157	-	197,157
Write-off	(8,409,051)	-	-	(8,409,051)
Balance at December 31, 2019	-	572,486	244,871	817,357
Accumulated amortization				
Balance at December 31, 2017	8,409,051	-	-	8,409,051
Amortization	-	43,818	16,508	60,326
Balance at December 31, 2018	8,409,051	43,818	16,508	8,469,377
Amortization	-	3,625	16,508	20,133
Write-off	(8,409,051)	-	-	(8,409,051)
Balance at December 31, 2019	-	47,443	33,016	80,459
Carrying amounts				
Balance at December 31, 2018	-	331,511	228,363	559,874
Balance at December 31, 2019	-	525,043	211,855	736,898

The Company's development costs have been incurred to develop plasma related technologies and the patents protect the design and specification of these technologies.

14. Accounts payable and accrued liabilities

	December 31, 2019	December 31, 2018
	\$	\$
Accounts payable	2,780,628	1,072,257
Accrued liabilities	1,866,822	1,080,128
Accounts payable to the controlling shareholder	214,470	205,222
Accounts payable to a trust beneficially owned by the controlling shareholder	51,234	-
	4,913,155	2,357,607

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

15. Billings in excess of costs and profits on uncompleted contracts

The amount to date of costs incurred and recognized profits less recognized losses for construction projects in progress amounted to \$4,612,082(2018 - \$3,517,534).

Payments to date received were \$5,746,739 and \$1,950,000 of deposits on contracts in progress (2018 - \$5,919,944 in cash and \$1,950,000 of other assets).

Changes in billings in excess of costs and profits on uncompleted contracts during the year are explained by \$1,283,144 recognised at the beginning of the year being recognised as revenue, and an increase of \$15,391 resulting from cash received excluding amounts recognised as revenue.

16. Term loans

	Other Term Loans ¹	2019 SR&ED Tax Credit loan ²	2018 SR&ED Tax Credit loan ³	2017 SR&ED Tax Credit loan ⁴	2016 SR&ED Tax Credit loan	Total
	\$	\$	\$	\$	\$	\$
Balance, December 31, 2017	-	-	-	247,200	290,200	537,400
Repayment	-	-	-	-	(290,200)	(290,200)
Balance, December 31, 2018	-	-	-	247,200	-	247,200
Additions	115,200	247,500	214,000	-	-	576,700
Conversion option	(12,800)	-	-	-	-	(12,800)
Financing costs	-	(63,558)	(54,955)	-	-	(118,513)
Accretion	8,533	1,389	40,691	-	-	50,613
Repayment	-	-	-	(247,200)	-	(247,200)
Balance, December 31, 2019	110,933	185,331	199,736	-	-	496,000

¹ matured May 1, 2020 bearing interest rate of 8% per annum payable at the maturity date.

² maturing December 23, 2020 bearing interest rate of 16.68% payable at the issuance.

³ matured April 3, 2020 bearing interest rate of 16.68% payable at the issuance.

⁴ matured September 30, 2018 bearing interest rate of 18% (effective interest rate 23%), repaid February 2019.

On December 23, 2019, the Company entered into a SR&ED tax credit loan of \$247,500 bearing interest at a rate of 16.68% and fees totaling \$22,375 paid at the issuance of the loan. The loan was discounted using the effective interest method. The effective interest rate on the loan is 25.68%.The loan is secured by the 2019 investment tax credit receivable and is repayable on December 22, 2020.

On March 25, 2019, the Company entered into a SR&ED tax credit loan of \$214,000 bearing interest at a rate of 16.68% and fees totaling \$19,260 paid at the issuance of the loan. The loan was discounted using the effective interest method. The effective interest rate on the loan is 25.68%.The loan is secured by the 2018 investment tax credit receivable and is repayable on April 2, 2020.

The SR&ED tax credit loans are financing, in the form of loans, with respect to the Company's scientific research and experimental development tax credits ("SR&ED Tax Credits"). The principal of the loans is subject to holdback to be disbursed upon reception of notice of assessment. The principal of the loans is subject to repayment at the earlier of (a) receipt of the SR&ED Tax Credits refund or (b) the maturity date. The SR&ED Tax Credits loans agreement provides for automatic renewal of twelve months if loan is not paid at maturity. As

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

16. Term loans (continued)

at December 31, 2019, the amount available under the term loan financing agreement totals \$461,500 (2018 – \$247,200).

Pursuant to each financing, the Company granted the lender a security interest and movable hypothec on all of its assets excluding its intellectual property but including a first rank claim on the refundable portion of its SR&ED Tax Credits for each of the fiscal years ended December 31, 2018, of \$274,921 and 2019 of \$434,474.

In 2019, the Company recorded investment tax credits receivable of \$434,474 (2018 - \$274,921), of which an amount of \$80,146 (2018 - \$43,292) was recorded against property and equipment, \$179,670 (\$358,427 – 2018) was recorded against cost of sales and services, \$144,658 (2018 - \$79,529) against research and development expenses and \$30,000 (2018 - \$36,827) against selling general and administrative expenses..

On May 1, 2019 the Company entered into loan agreements with unrelated individuals totaling \$115,200 bearing interest at the annual rate of 8% payable at maturity, on May 1, 2020. The other term loans are unsecured and are convertible, at 10% discount, for a variable amount of shares into any future private placement until maturity. The fair value of the debt instrument at inception was determined using the estimated cash flows discounted using a market rate of 20%. The residual amount of the non derivative liability of \$12,800 associated with the conversion feature has been recorded in accounts payable and accrued liabilities.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

17. Long-term debt

	December 31, 2019	December 31, 2018
	\$	\$
Promissory notes payable to the controlling shareholder and CEO (i)	284,956	249,339
Obligations under finance lease	-	31,728
	284,956	281,067
Current portion of the long-term debt	(284,956)	12,491
Long-term debt	-	268,576

	Promissory notes payable to the controlling shareholder and CEO (i)	Obligations under finance lease	Balance of sale – payable to a company owned by Mr. Peter Photis Pascali, the father of the controlling shareholder and CEO, and under common control of the controlling shareholder and CEO	Total
	\$	\$	\$	\$
Balance, December 31, 2017	-	18,736	111,928	130,664
Addition	295,000	24,008	-	319,008
Fair value adjustment	(58,607)	-	-	(58,607)
Accretion	12,946	-	-	12,946
Issuance of shares in settlement of debt	-	-	(111,928)	(111,928)
Repayment	-	(11,016)	-	(11,016)
Balance, December 31, 2018	249,339	31,728	-	281,067
Additions	-	-	-	-
Fair value adjustment	-	-	-	-
Accretion	35,617	-	-	35,617
Reclass to lease liabilities	-	(31,728)	-	(31,728)
Balance, December 31, 2019	284,956	-	-	284,956
Current portion of long-term debt	(284,956)	-	-	(284,956)
Long-term debt	-	-	-	-

(i) The promissory notes payable to the controlling shareholder and CEO of the Company total \$295,000, are unsecured and bear interest at 6% per annum payable on March 31, 2020, the maturity date. The fair value

of the promissory note liability component at inception was determined using estimated future cash flows discounted using a market interest rate of 20%. The residual amount of \$58,607 representing the below market element was recorded in the shareholders' (Deficiency) Equity in contributed surplus.

PyroGenesis Canada Inc.

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For the years ended December 31, 2019 and 2018

18. Convertible debentures

2015 Convertible Debenture

On April 2, 2018, the Company redeemed \$3,245,000 of the \$4,000,000 unsecured convertible debenture issued on March 30, 2015 maturing on March 30, 2018 (the "2015 Convertible Debenture"). The remaining balance of \$755,000 was redeemed on April 19, 2018, by the issuance of 1,258,333 units to Peter Photis Pascali, the father of the controlling shareholder and CEO. The amount of \$572,582 related to the equity component of the 2015 Convertible Debenture has been reclassified from Equity portion of convertible debentures to the contributed surplus at the extinguishment date.

2018 Convertible Debenture

On April 2, 2018, the Company completed a \$3,000,000 non-brokered private placement of 9.5% secured convertible debentures (the "2018 Convertible Debenture"). The 2018 convertible debentures bear interest at the rate of 9.5% per annum, with interest payable in cash on a quarterly basis, and mature on March 29, 2020. Each Debenture is convertible into common shares of the Company at a conversion price of \$0.80 per common share. The 2018 convertible debentures may be redeemed before maturity, in whole at anytime or in part from time to time at the option of the Company. In the event the Company elects to redeem the debentures before the maturity date, the Company shall be required to pay all interest that otherwise would have accrued on the debentures up to the maturity date. The 2018 convertible debentures are secured by a hypothec on the universality of all of the property, rights and assets of the Company, present and future, movable and immovable, corporeal and incorporeal.

The 2018 Convertible Debenture is a compound financial instrument and the total proceeds of the issuance was allocated between a liability for the debenture and an equity component for the conversion feature. The fair value of the debt liability component at inception was determined using estimated future cash flows discounted using a market interest rate of 20%. The residual amount representing the value of the conversion option equity component was classified in the shareholders' (Deficiency) Equity.

In connection with the convertible debenture, the Company paid finder fees in the amount of \$180,000 to the agent. Total transaction costs amount to \$315,702 and have been allocated between the liability and equity components. The effective interest rate of the liability component is 20.23%.

At the issuance date, the 2018 Convertible Debenture was recorded as follows:

	\$
Debt component, net of transaction cost of \$268,364	2,282,538
Conversion option recognized in equity, net of transaction cost of \$47,338	401,760
Net proceeds	2,684,298

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

18. Convertible debentures (continued)

	December 31, 2019	December 31, 2018
	\$	\$
Balance, beginning of year	2,527,241	3,916,549
Effective interest accretion	-	83,451
	2,527,241	4,000,000
Repayment of 2015 Convertible Debenture in cash	-	(3,245,000)
Repayment of 2015 Convertible Debenture in shares	-	(755,000)
	2,527,241	-
Issuance of 2018 Convertible Debenture	-	2,282,538
Effective interest accretion	371,117	244,703
Balance, end of year	2,898,358	2,527,241

On March 30, 2020, the Company reached an agreement to extend the maturity date of its \$3,000,000 convertible debenture to June 30, 2020, from the original maturity date of March 29, 2020. Under the terms of the agreement, the Company paid \$300,000 of the outstanding amount (representing 10% of the principal amount), paid a one-time accommodation fee of \$54,000, and is no longer subject to any prepayment penalties going forward. The interest rate and conversion feature have not changed.

19. Shareholders' deficiency

Common shares and warrants

Authorized:

The Company is authorized to issue an unlimited number of Class A common shares without par value.

Issuance of shares

On October 23, 2019, the Company completed a non-brokered private placement and issued 300,000 units at a price of \$0.56 per unit, for total gross proceeds of \$168,000. Each unit consists of one common share and three-quarters (0.75) of a common share purchase warrant of the Company. Each warrant entitles the holder to acquire one common share of the Company at a price of \$0.75. Each warrant expires fifteen (15) months from issuance. The Company did not pay finder's fees or issue any finders compensation warrants in connection with this private placement.

On June 19, 2019, the Company completed a non-brokered private placement and issued 1,000,000 units at a price of \$0.58 per unit, for total gross proceeds of \$580,000. Each unit consists of one common share and one common share purchase warrant of the Company. Each warrant entitles the holder thereof to purchase one common share at a price of \$0.85 until June 19, 2021. In connection with the private placement, the Company paid finder's fees in the amount of \$23,200.

On May 28, 2019, the Company completed a non-brokered private placement and issued 2,024,500 units at a price of \$0.58 per unit, for total gross proceeds of \$1,174,210. Each unit consists of one common share and one common share purchase warrant of the Company. Each warrant entitles the holder thereof to purchase one common share at a price of \$0.85 until May 28, 2021. In connection with the private placement, the Company paid finder's fees in the amount of \$40,600.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

19. Shareholders' deficiency (continued)

On May 15, 2019, the Company completed a non-brokered private placement and issued 2,996,500 units at a price of \$0.58 per unit, for total gross proceeds of \$1,737,970. Each unit consists of one common share and one common share purchase warrant of the Company. Each warrant entitles the holder thereof to purchase one common share at a price of \$0.85 until May 15, 2021. In connection with the private placement, the Company paid finder's fees in the amount of \$42,595.

On January 7, 2019, the Company received an additional subscription and sold an additional aggregate amount of 97,400 units of the Company at a price of \$0.58 per unit for gross proceeds of \$56,492. An amount of \$5,800 from the initial subscriptions of the Private Placement dated December 17, 2018 was received on December 23, 2018 and deposited on January 3, 2019. As a result of the initial subscriptions and subsequent subscription, the Company issued and sold pursuant to the Private Placement dated December 17, 2018 a total of 2,244,367 units for gross proceeds of \$1,301,733. Each unit consists of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to purchase one common share at a price of \$0.85 until December 18, 2020.

During the year ended December 31, 2019, 1,384,000 (544,000 - 2018) stock options were exercised for net proceeds of \$306,360 (\$139,320 - 2018). The amounts credited to share capital from the exercise of stock options include an ascribed value from contributed surplus of \$287,350 (\$93,920 - 2018).

During the year ended December 31, 2018, the Company issued 1,797,500 common shares upon the exercise of warrants for net proceeds of \$629,125.

On December 17, 2018, the Company issued an amount of 2,146,967 units at a price of \$0.58 per unit, for gross proceeds of \$1,245,241. Each unit consists of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to purchase one common share at a price of \$0.85 until December 18, 2020.

On October 25, 2018, the Company issued 3,385,718 units to a company owned by Mr. Peter Photis Pascali, the father of the controlling shareholder and CEO, and an entity under common control of the controlling shareholder and CEO under a settlement agreement (see note 23).

On October 19, 2018, the Company issued an amount of 1,112,000 units as repayment of term loans and accounts payable to three creditors, which were measured at an amount of \$644,960, to reflect the fair value of the financial liabilities extinguished at that time. Each unit also consists of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to purchase one common share at a price of \$0.58 until February 13, 2021.

On October 19, 2018, the Company issued an amount of 388,750 units at a price of \$0.58 per unit, for gross proceeds of \$225,475. Each unit consists of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to purchase one common share at a price of \$0.58 until February 13, 2021.

On September 28, 2018, the Company issued an amount of 3,448,276 units to a trust whose beneficiary is the controlling shareholder and CEO at a price of \$0.58 per unit, for gross proceeds of \$2,000,000. Each unit consists of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to purchase one common share at a price of \$0.58 until January 28, 2021.

The Company also issued 1,850,000 units to an unrelated party for an aggregate amount of 3,108,333 at a price of \$0.60 per unit, for gross proceeds of \$1,110,000. Each unit consists of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to purchase one common share at a price of \$0.85 until April 19, 2020. In connection with the private placement, the Company paid finder fees in the amount of \$89,478 and issued 74,000 finder's compensation warrants to the agents.

PyroGenesis Canada Inc.

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19. Shareholders' deficiency (continued)

On February 9, 2018 and March 7, 2018, the Company issued 1,899,999 units to a company owned by Mr. Peter Photis Pascali, the father of the controlling shareholder and CEO, and an entity under common control of the controlling shareholder and CEO under a settlement agreement (see notes 14 and 17) and 2,971,430 units to unrelated parties at a price of \$0.70 per unit, for gross proceeds of \$2,080,001. Each unit consists of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder thereof to purchase one common share at a price of \$1.25 until August 9, 2019. In connection with the private placement, the Company paid finder's fees in the amount of \$127,750 and issued 88,000 finder's compensation warrants to the agents.

The fair value of the finder's compensation warrants issued was measured as follows based on the Black-Scholes option pricing model:

Date of issuance	April 19, 2018	Feb 9, 2018
Exercise price (\$)	0.85	1.25
Weighted-average issuance date market price (\$)	0.62	0.70
Expected life (months)	24	18
Expected volatility (%)	71.9	71.9
Semi-annual weighted-average risk-free interest rate (%)	1.74	1.74
Dividend yield (%)	0	0

Stock option plan

The Company has a stock option plan authorizing the Board of Directors to grant options to directors, officers, employees and consultants to acquire common shares of the Company at a price computed by reference to the closing market price of the shares of the Company on the business day before the Company notifies the stock exchanges of the grant of the option. The number of shares which may be granted to any one person shall not exceed 5% (2% for consultants) of total share capital over a twelve-month period.

As at December 31, 2019, an amount of \$81,884 (\$127,195 – 2018) remains to be amortized until January 2021 related to the grant of stock options.

PyroGenesis Canada Inc.

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For the years ended December 31, 2019 and 2018

19. Shareholders' deficiency (continued)

Stock option plan (continued)

The following table sets out the activity in stock options:

	Number of options	Weighted average exercise price
		\$
Options, December 31, 2017	9,376,000	0.32
Granted	1,350,000	0.60
Exercised	(544,000)	(0.26)
Forfeited	(260,000)	(0.25)
Balance – December 31, 2018	9,922,000	0.37
Granted	400,000	0.51
Exercised	(1,384,000)	(0.22)
Expired	(500,000)	(0.70)
Balance, December 31, 2019	8,438,000	0.37

On September 29, 2019, the Company granted a total of 400,000 stock options to members of the Board of Directors and the Acting Chief Financial Officer of PyroGenesis. The stock options have an exercise price of \$0.51 per common share, 50% vested at grant date and 50% at the first anniversary of the grant and are exercisable over a period of 5 years. The fair value of the stock options was estimated at \$0.34 per option by applying the Black-Sholes option pricing model.

On October 29, 2018, the Company granted 100,000 stock options to an Officer of the Company. The stock options have an exercise price of \$0.52 per common share and are exercisable over a period of 5 years. The fair value of the stock options was estimated at \$0.30 per option by applying the Black-Sholes option pricing model.

On July 3, 2018, the Company granted 300,000 stock options to a member of the Board of Directors of the Company. The stock options have an exercise price of \$0.51 per common share and are exercisable over a period of 60 months. The fair value of the stock options was estimated at \$0.24 per option by applying the Black-Sholes option pricing model.

On May 10, 2018, the Company granted 250,000 stock options to a member of the Board of Directors of the Company. The stock options have an exercise price of \$0.52 per common share and are exercisable over a period of 60 months. The fair value of the stock options was estimated at \$0.29 per option by applying the Black-Sholes option pricing model.

On April 3, 2018, the Company granted 500,000 stock options to a consultant, to promote the business interests of the Company worldwide. The stock options have an exercise price of \$0.70 per common share and are exercisable over a period of 18 months. The fair value of the stock options was estimated at \$0.22 per option by applying the Black-Sholes option pricing model.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

19. Shareholders' deficiency (continued)

Stock option plan (continued)

On February 23, 2018, the Company issued 200,000 stock options to an Officer of the Company with an exercise price of \$0.60 and are exercisable over a period of 60 months. The fair value of the stock options was estimated at \$0.37 per option by applying the Black-Scholes option pricing model.

The fair value of the stock options granted in the years ended December 31, 2019 and 2018 was measured based on the Black-Scholes option pricing model using the following assumptions:

Date of grant	February 23, 2018	April 3, 2018	May 10, 2018	July 3, 2018	October 29, 2018	September 29, 2019 ⁽¹⁾
Number of options granted	200,000	500,000	250,000	300,000	100,000	400,000
Exercise price (\$)	0.60	0.70	0.52	0.51	0.52	0.51
Fair value of each option under the Black Scholes pricing model (\$)	0.365	0.220	0.289	0.244	0.300	0.34
Assumptions under the Black Scholes model:						
Fair value of the market share (\$)	0.60	0.66	0.55	0.49	0.52	0.51
Risk free interest rate (%)	2.04	1.79	2.00	2.19	2.42	1.39
Expected volatility (%)	73	73	58	58	68	83
Expected dividend yield	-	-	-	-	-	-
Expected life (number of months)	60	18	60	60	60	60
Forfeiture rate (%)	-	-	-	-	-	-

⁽¹⁾ A total of 200,000 of the stock options granted vested on the day of the grant and 200,000 will vest on September 29, 2020.

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

As at December 31, 2019, the outstanding options, as issued under the stock option plan to directors, officers, employees and consultants for the purchases of one common share per option, are as follows:

	Number of stock options Dec 31, 2018	Granted	Exercised	Forfeitures	Number of stock options Dec 31, 2019	Number of stock options vested	Exercise price per option	Expiry date
							\$	
February 12, 2015	1,965,000	-	(477,000)	-	1,488,000	1,488,000	0.30	Feb 12, 2020
September 25, 2016	3,875,000	-	(875,000)	-	3,000,000	3,000,000	0.18	Sep 25, 2021
October 20, 2016	32,000	-	(32,000)	-	-	-	0.18	Oct 20, 2021
October 25, 2016	100,000	-	-	-	100,000	100,000	0.19	Oct 25, 2021
November 3, 2017	2,600,000	-	-	-	2,600,000	2,520,000	0.58	Nov 3, 2022
February 9, 2018	200,000	-	-	-	200,000	60,000	0.60	Feb 9, 2023
April 3, 2018	500,000	-	-	(500,000)	-	-	0.70	Oct 3, 2019
May 10, 2018	250,000	-	-	-	250,000	250,000	0.52	May 10, 2023
July 3, 2018	300,000	-	-	-	300,000	300,000	0.51	July 3, 2023
October 29, 2018	100,000	-	-	-	100,000	30,000	0.52	Oct 29, 2023
September 29, 2019	-	400,000	-	-	400,000	200,000	0.51	Sept 29, 2024
	9,922,000	400,000	(1,384,000)	(500,000)	8,438,000	7,948,000	0.37	

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

19. Shareholders' deficiency (continued)

Share purchase warrants

The following table reflects the activity in warrants during the years ended December 31, 2019 and the number of issued and outstanding share purchase warrants at December 31, 2019:

	Number of warrants December 31, 2018	Issued	Expired	Number of warrants December 31, 2019	Price per warrant \$	Expiry date
Issuance of units – February 9, 2018	4,871,429	-	(4,871,429)	-	1.25	Aug 9, 2019
Broker warrants – February 9, 2018	88,000	-	(88,000)	-	1.25	Aug 9, 2019
Issuance of units – April 19, 2018	3,108,333	-	-	3,108,333	0.85	Apr 19, 2020
Issuance of broker warrants – April 19, 2018	74,000	-	-	74,000	0.85	Apr 19, 2020
Issuance of units – April 20, 2018	3,385,715	-	-	3,385,715	0.85	Apr 20, 2020
Issuance of units – September 28, 2018	3,448,276	-	-	3,448,276	0.58	Jan 28, 2021
Issuance of units – October 19, 2018	1,500,750	-	-	1,500,750	0.58	Feb 13, 2021
Issuance of units – December 17, 2018	2,146,967	97,400	-	2,244,367	0.85	Dec 18, 2020
Issuance of units – May 15, 2019	-	2,996,500	-	2,996,500	0.85	May 15, 2021
Issuance of units – May 24, 2019	-	2,024,500	-	2,024,500	0.85	May 24, 2021
Issuance of units – June 19, 2019	-	1,000,000	-	1,000,000	0.85	Jun 19, 2021
Issuance of units – October 25, 2019	-	225,000	-	225,000	0.75	Oct 25, 2021
	18,623,470	6,343,400	(4,959,429)	20,007,441	0.78	

20. Supplemental disclosure of cash flow information

Net changes in non-cash components of operating working capital

	2019	2018
	\$	\$
Decrease (increase) in:		
Accounts receivable	420,612	(193,283)
Costs and profits in excess of billings on uncompleted contracts	184,852	(192,606)
Investment tax credits receivable	4,099	164,484
Deposits	434,324	(300,816)
Prepaid expenses	(30,564)	51,254
Increase (decrease) in:		
Accounts payable and accrued liabilities	2,103,997	405,003
Billings in excess of costs and profits on uncompleted contracts	(1,267,753)	2,505,695
	1,849,567	2,439,731

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

21. Other information

The aggregate amortization of intangible assets expense for the year ended December 31, 2019 was \$20,133 (2018 - \$60,326) and was recorded in cost of sales and services.

Depreciation on property and equipment amounted to \$168,835 for the year ended December 31, 2019 (2018 - \$212,621) and is recorded in selling, general and administrative. Employee benefits totaled \$5,967,563 in the year ended December 31, 2019 (2018 - \$6,504,081) and included share-based compensation of \$171,807 (2018 - \$673,249).

The Company has been awarded various grants during the year, which were recognized when they became receivable. The grants, received in 2019, are unconditional and amounted to \$261,088 (2018 - \$191,380). An amount of \$204,525 (2018 - \$145,470) was recorded as a reduction to the related expenses in research and development and an amount of \$56,563 (2018 - \$45,910) was recorded as a reduction to the related expenses in selling, general and administrative.

22. Net finance costs:

	2019	2018
	\$	\$
Finance costs		
Interest and fees on convertible debentures	285,000	291,140
Interest accretion of convertible debentures	371,117	328,153
Interest on term loans	46,749	54,063
Interest on promissory notes	53,317	7,427
Interest on lease liabilities	258,288	-
Interest on obligations under capital leases	-	1,534
Interest accretion on promissory notes	-	22,646
Change in the fair value of investments	(176,237)	919,463
Penalties and other interest expenses	275,183	3,428
	1,113,417	1,627,854
Dividend in kind	-	(102,579)
Capitalized borrowing costs on Equipment under construction	(52,150)	-
Net finance costs	1,061,267	1,525,275

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

23. Related party transactions

During the year ended December 31, 2019 and 2018, the Company concluded the following transactions with related parties:

The Company entered into a lease agreement for rent of a property with a trust whose beneficiary is the controlling shareholder and CEO of the Company. As at January 1, 2019, following the first application of IFRS 16, the Company recognized a right-of-use asset and lease liabilities in the amount of \$1,350,487. As at December 31, 2019, the right-of-use asset and the lease liabilities amount to \$1,183,416 and \$1,218,958 respectively. In 2019, the variable components of the leases which are not included in the lease liabilities under IFRS 16, comprise property taxes for an amount of \$266,581 (2018 - \$260,803) which were charged to the Company. A balance due of \$51,134 is included in accounts payable and accrued liabilities.

In 2018, rent and property taxes were charged by a trust whose beneficiary is the controlling shareholder and CEO of the Company in the amount of \$260,803. The balance due is \$Nil.

In 2018, an amount of \$240,159 was paid as a deposit for rent to a trust whose beneficiary is the controlling shareholder and CEO of the Company, of this amount \$172,941 is included in prepaids.

An amount of \$Nil (2018 – \$240,159) was paid as a deposit for rent to a trust whose beneficiary is the controlling shareholder and CEO of the Company.

Interest expenses of \$Nil (2018 - \$9,700) were accreted on a loan from a trust whose beneficiary is the controlling shareholder and CEO of the Company.

An amount of \$Nil (2018 – \$10,213) was owed by a trust whose beneficiary is the controlling shareholder and CEO of the Company.

Interest of \$Nil (2018 - \$14,171) was paid on the \$755,000 convertible debentures held by Mr. Peter Photis Pascali, the father of the controlling shareholder and CEO. Accreted interest related to the 2015 Convertible Debenture held by Peter Photis Pascali amounted to \$Nil (2018 - \$11,623).

A balance due to the controlling shareholder and CEO of the Company amounted to \$214,470 (2018 - \$205,222) for expense report, salary and vacation payable and is included in accounts payable and accrued liabilities.

An amount of \$53,317 (2018 - \$20,373), of interest accretion was expensed in net financing costs in the year on the loan of \$295,000 from the controlling shareholder and CEO of the Company and is also included in accounts payable and accrued liabilities.

In 2018, the Company and a company owned by Mr. Peter Photis Pascali, the father of the controlling shareholder and CEO, and under common control of the controlling shareholder and CEO, entered into a settlement agreement to resolve a claim in the amount of \$5,531,928 filed on or about April, 5, 2018, made by the company owned by Mr. Peter Photis Pascali, the father of the controlling shareholder and CEO, in connection with the share for debt conversion transaction between the parties that took place in 2014. Under the share for debt conversion, the Company issued 7,500,000 common shares in 2014 to settle \$6,000,000 of the carrying value of the Balance of sale payable. The current claim was settled for an amount of \$3,700,000. The settlement agreement also constitutes the final payment of the Balance of sale, and provides for the issuance of units by the Company having a fair value of \$3,327,571 to the company owned by Mr. Peter Photis Pascali, as follows: (i) on February 9 and March 7, 2018, issuance of 1,899,999 units at a value of \$0.70 per unit with each unit

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

23. Related party transactions (continued)

consisting of 1 common share of the Company and 1 common share purchase warrant which entitles the holder to purchase 1 common share at a price of \$1.25 until August 9, 2019, and (ii) on April 30, 2018, 3,385,715 units at a value of \$0.59 per unit with each unit consisting of 1 common share of the Company and 1 common share purchase warrant which entitles the holder to purchase 1 common share at a price of \$0.85 until April 19, 2020. The units agreed to on April 30, 2018 were issued on October 25, 2018. As the claim related to a dispute that existed at year-end, a liability and related expense of \$3,215,643 was recorded as at December 31, 2017. The liability was initially measured based on the fair value of the units as at their expected issuance date, which is \$0.70 on February 9 and March 7, 2018 and \$0.59 on April 30, 2018. The difference between the fair value of the units as at April 30, 2018 and October 25, 2018 has been considered a transaction with shareholders and recorded in the shareholders' (Deficiency) Equity.

The key management personnel of the Company are the members of the Board of Directors and certain officers. Total compensation to key management consisted of the following:

	2019	2018
	\$	\$
Salaries – key management	723,000	408,000
Pension contributions	10,960	8,160
Fees – Board of Directors	110,750	118,000
Share-based compensation – officers	13,473	365,379
Share-based compensation – Board of Directors	89,025	114,070
Other benefits – officers	58,412	13,066
Total compensation	1,005,620	1,026,675

The Company has added three employees in key management amounts for 2019. A balance of \$130,604 of key management compensation, of the amounts noted above, is included in accounts payable and accrued liabilities as at December 31, 2019 (December 31, 2018 - \$127,748).

24. Financial instruments

As part of its operations, the Company carries a number of financial instruments. It is management's opinion that the Company is not exposed to significant interest, currency or credit risks arising from these financial instruments except as otherwise disclosed. The Company's overall risk management program focuses on the unpredictability of the financial market and seeks to minimize potential adverse effects on the Company's financial performance. The Company does not use derivative financial instruments to hedge these risks.

Foreign currency risk

The Company enters into transactions denominated in US dollars for which the related revenues, expenses, accounts receivable and accounts payable and accrued liabilities balances are subject to exchange rate fluctuations.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

24. Financial instruments (continued)

As at December 31, the following items are denominated in US dollars:

	2019 CDN	2018 CDN
	\$	\$
Cash	74,749	4,472
Accounts receivable	28,704	527,761
Accounts payable and accrued liabilities	(403,273)	(240,866)
Total	(299,820)	291,367

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.

Sensitivity analysis

At December 31, 2019, if the US Dollar changes by 10% against the Canadian dollar with all other variables held constant, the impact on pre-tax gain or loss for the year ended December 31, 2019 would have been \$(28,000) (December 31, 2018 – \$29,000).

Credit risk and credit concentration

Credit risk is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The maximum credit risk to which the Company is exposed as at December 31, 2019 represents the carrying amount of cash and trade accounts receivable. The Company manages its credit risk by performing credit assessments of its customers and provides allowances for potentially uncollectible accounts receivable. The Company does not generally require collateral or other security from customers on accounts receivable. The Company believes that there is no unusual exposure associated with the collection of these receivables. During the year ended December 31, 2019, five customers accounted for 77% (December 31, 2018 – three customers for 82%) of revenues from operations.

	2019		2018	
	Revenues	% of total revenues	Revenues	% of total revenues
	\$	%	\$	%
Customer 1	1,166,705	24	1,718,904	34
Customer 2	835,142	17	1,221,811	24
Customer 3	637,841	13	1,214,403	24
Customer 4	560,916	12	-	-
Customer 5	525,556	11	-	-
Total	3,726,160	77	4,155,118	82

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

24. Financial instruments (continued)

Three customers accounted for 93% (December 31, 2018 – one customer for 85%) of trade accounts receivable with amounts owing to the Company of \$96,874 (2018 - \$478,699), representing the Company's major credit risk exposure. Credit concentration is determined based on customers representing 10% or more of total revenues and/or total accounts receivable.

Fair value of financial instruments

Financial instruments are comprised of cash, accounts receivable, investments, deposits, accounts payable and accrued liabilities, term loans, long-term debt and convertible debentures. There are three levels of fair value that reflect the significance of inputs used in determining fair values of financial instruments:

- Level 1 — quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 — inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices).
- Level 3 — inputs for the asset or liability that are not based on observable market data.

Investments in BGF shares are valued as at December 31, 2019 at quoted market prices and are classified as Level 1. Investments in BGF shares were valued as at December 31, 2018 based on a valuation technique that estimates a business' value based on a recent round of financing and were classified as Level 3.

Investments in HPQ shares are valued at quoted market prices and are classified as Level 1.

Investments in HPQ warrants are valued using the Black-Scholes pricing model and are classified as Level 3.

The fair values of cash, trade accounts receivable, accounts payable and accrued liabilities, term loans and long-term debt approximate their carrying amounts due to their short-term maturities.

Interest rate risk

Interest rate risk is the risk that the value of a financial instrument might be adversely affected by a change in interest rates. Changes in market interest rates may have an effect on the cash flows associated with some financial assets and liabilities, known as cash flow risk, and on the fair value of other financial assets or liabilities, known as price risk, and on the fair value of investments or liabilities, known as price risks. The Company is exposed to a risk of fair value on the term loans and convertible debentures as those financial instruments bear interest at fixed rates.

Price risk

Price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market price (other than those arising from foreign currency risk and interest risk), whether those changes are caused by factors specific to the individual financial instrument or its issuers or factors affecting all similar financial instruments traded in the market. The most significant exposure to the price risk for the Company arises from its investments in shares of public companies quoted on the TSXV Exchange. If equity prices had increased or decreased by 15% as at December 31, 2019, with all other variables held constant, the Company's investments would have increased or decreased respectively, by approximately \$241,000 (December 31, 2018 - \$262,000).

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

24. Financial instruments (continued)

Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivery of cash or another financial asset. The Company's ability to continue as a going concern is dependent on management's ability to raise required funding through future equity and / or debt issuances and to generate positive cash flows from operations (see note 1 (b)). The Company manages its liquidity risk by forecasting cash flows from operations and anticipating any investing and financing activities.

The following table summarizes the contractual amounts payable and maturities of financial liabilities as at December 31, 2019:

	Carrying value	Total contractual amount	6 months or less	6 to 12 months
	\$	\$	\$	\$
Accounts payable and accrued liabilities	4,913,155	4,900,355	4,900,355	-
Term loans	496,000	579,795	332,295	247,500
Long-term debt	284,956	299,425	299,425	-
Convertible debentures	2,898,358	3,142,500	3,142,500	-
	8,592,469	8,922,075	8,674,575	247,500

25. Contingent liabilities

The Company is currently a party to various legal proceedings. If management believes that a loss arising from these proceedings is probable and can reasonably be estimated, that amount of the loss is recorded. As additional information becomes available, any potential liability related to these proceedings is assessed and the estimates are revised, if necessary. Based on currently available information, management believes that the ultimate outcome of these proceedings, individually and in aggregate, will not have a material adverse effect on the Company's financial position or overall trends in results of operations.

The Company had received a government grant in prior years of approximately \$800,000 to assist with the development of a new system of advanced waste treatment systems technology. The grant is potentially repayable at the rate of 3% of any consideration received as a result of the project, for which funding has been received, to a maximum of the actual grant received. This repayment provision will remain in effect until May 30, 2024. The Company abandoned the project in 2011 and accordingly, no amount is expected to be repaid.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

26. Capital management

The Company's objectives in managing capital are:

- a) To ensure sufficient liquidity to support its current operations and execute its business plan; and
- b) To provide adequate return to the shareholders

The Company's primary objectives when managing capital is to ensure the entity continues as a going concern as well as to maintain optimal returns to shareholders and benefits for other stakeholders.

The Company currently funds these requirements from cash flows from operations and with financing arrangements with third parties and shareholders. The Company is not subject to any externally imposed capital requirements.

The management of capital includes common shares, warrants reserve, contributed surplus and equity portion of convertible debentures for a total amount of \$54,154,733 (2018 - \$50,060,490) and debt of \$3,679,323, (2018 - \$3,055,508). The Company monitors its working capital in order to meet its financial obligations. As at December 31, 2019, the Company's working capital deficiency was \$10,492,101 (2018 – deficiency of \$4,101,428).

There were no changes in the Company's approach during fiscal 2019.

27. Income taxes

a) Reconciliation of income taxes

	2019	2018
	\$	\$
Loss before income taxes	(9,171,116)	(7,845,800)
Income tax rates	26.6%	26.7%
Income tax recovery at the combined basic Federal and Provincial tax rates	(2,439,517)	(2,094,829)
Permanent differences	271,576	835,340
Tax rate changes	8,153	(68,446)
True-up deferred	(652,185)	(53,208)
Unrecognized tax assets	2,811,973	1,381,143
Income tax expense	-	-

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

27. Income taxes (continued)

b) Deferred tax expense

	2019	2018
	\$	\$
Origination and reversal of temporary differences	(2,511,973)	(1,381,142)
Change in unrecognized deductible temporary differences	2,511,973	1,381,142
Income tax expense	-	-

c) The tax effects of significant items comprising the Company's net deferred tax assets and liabilities are as follows:

	2019	2018
	\$	\$
Investments	74,863	97,932
Financing costs	80,685	87,834
Property, plant and equipment	463,353	112,054
Intangible assets	1,116,566	1,101,341
Right of use assets (IFRS 16)	57,540	-
Research and development expenses	2,027,039	1,878,263
Non-capital losses carried forward	7,150,683	4,988,950
	10,970,729	8,266,374
Deferred tax assets not recognized	-10,970,729	(8,266,374)
	-	-

d) Tax carry forward

The Company has the following non-capital losses available to reduce future income taxes:

Expiry date	Federal	Provincial
	\$	\$
2031	2,313,597	2,313,597
2032	3,945,870	3,945,870
2033	2,047,643	2,047,643
2034	589,007	589,007
2035	703,664	416,827
2036	3,579,827	3,440,527
2037	1,577,876	1,568,739
2038	5,716,536	5,650,620
2039	6,622,981	6,631,768
	27,097,001	26,604,598

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

27. Income taxes (continued)

The Company has a total of \$3,076,049 of federal income tax credits that can be carried forward for 20 years and expire from 2019 to 2038.

The Company has a total of \$9,232,220 of federal pool balance of deductible SR&ED expenditures and \$8,782,931 of Quebec R&D expenditures that can be carried forward indefinitely in the future to reduce income taxes.

28. Segment information

The Company operates in one segment, based on financial information that is available and evaluated by the Company's Board of Directors.

The Company's head office is located in Montreal, Quebec. The operation of the Company is located in one geographic area: Canada. The following is a summary of the Company's geographic information:

	2019	2018
	\$	\$
Revenues from external customers located in:		
Canada	889,284	1,908,109
United States	852,599	1,643,811
Europe	1,488,208	147,368
Mexico	122,890	1,214,403
Asia	1,399,824	116,425
Australia	53,190	-
South America	7,983	-
	4,813,978	5,030,116

Revenue by product line and revenues recognized by revenue recognition method are presented in note 6.

PyroGenesis Canada Inc.

Notes to the Financial Statements

For the years ended December 31, 2019 and 2018

29. Subsequent events

In January and February 2020, the Company issued 1,488,000 common shares upon the exercise of 1,488,000 stock options with an exercise price of \$0.30 for total proceeds of \$446,400.

In March 2020, the World Health Organization declared a global pandemic due to the novel coronavirus (COVID-19). The situation is constantly evolving, and the measures put in place are having multiple impacts on provincial, national and global economies. The overall effect of these events on the Company and its operations is too uncertain to be estimated at this time. The impacts will be accounted for when they are known and may be assessed.

On March 18, 2020, the Company closed a \$903,000 non-brokered secured convertible loan at 12% per annum, with a trust whose beneficiary is the controlling shareholder and CEO of the Company. The Loan bears interest at the rate of 12% per annum, with interest payable in cash on a quarterly basis in arrears and matures September 17, 2021. The Loan is convertible into common shares of the Company at a conversion price of \$0.28 per common share.

The Company received under the exclusivity contract with Drosrite International approximately US\$2,545,520 between March 23, 2020, and June 02, 2020.

On March 30, 2020 the Company reached an agreement to extend the maturity date of its \$3,000,000 convertible debenture to June 30, 2020, from the original maturity date of March 29, 2020. Under the terms of the agreement, the Company redeemed \$300,000 (representing 10% of the principal amount), paid a onetime accommodation fee of \$54,000, and is no longer subject to any prepayment penalties going forward. The interest rate and conversion feature have not changed.

The Company received under the exclusivity contract with a US tunneling corporation approximately \$1,000,000 between March and April, 2020.

On May 26, 2020, the Company completed a share debt transaction with HPQ to settle outstanding trade accounts receivable in the amount of \$395,514, for which an amount of \$30,002 was included in trade accounts receivable as at December 31, 2019, whereby the Company received 4,394,600 units at a price of \$0.09 per unit. Each unit is comprised of one common share and one common share purchase warrant. Each warrant will allow its holder to subscribe to one common share at the price of \$0.10 for a period of 36 months from the date of closing. Each share issued pursuant to the debt settlement will have a mandatory four month and one day holding period from the date of closing. This settlement is subject to the approval of the TSX Venture.

Between April 7, 2020 and June 15, 2020, the Company bought back 1,285,000 of its common shares for an amount of \$964,391 including commissions of \$12,845. In June 2020, the Company received proceeds of \$2,191,725 from 2,578,500 warrants exercised at a price of \$0.85 and \$156,600 from 270,000 warrants exercised at \$0.58.