IBEX TECHNOLOGIES INC.

MANAGEMENT DISCUSSION AND ANALYSIS

FISCAL 2019

YEAR ENDED JULY 31, 2019

As at November 6, 2019

IBEX

MANAGEMENT DISCUSSION AND ANALYSIS

FOR THE YEAR ENDED JULY 31, 2019

November 6, 2019

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MANAGEMENT DISCUSSION AND ANALYSIS

November 6, 2019

1 PREAMBLE

The following Management Discussion and Analysis ("MD&A") and the audited consolidated financial statements of IBEX Technologies Inc. (the "Company") were approved by the Audit Committee and the Board of Directors on November 6, 2019. This MD&A provides a review of the developments and results of operations of the Company during the fourth quarter and the fiscal year ended July 31, 2019 compared with the fourth quarter and the fiscal year ended July 31, 2018.

This MD&A should be read in conjunction with the Company's audited consolidated financial statements and notes thereto for the years ended July 31, 2019 and 2018.

The Company's audited consolidated financial statements are prepared in accordance with International Financial Reporting Standards ("IFRS"). Additional information relating to the Company, including the Company's Proxy Circular, can be found on SEDAR at www.sedar.com.

Where "IBEX" or "the Company" is used, it refers to IBEX Technologies Inc. and its wholly owned subsidiaries, unless otherwise indicated. All amounts are in Canadian dollars, unless otherwise indicated.

2 FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements that reflect the Company's current expectations regarding future events. Any such statements are subject to risks and uncertainties that could cause actual results to differ materially from those projected in these forward-looking statements. For more information on the Company's risks and uncertainties relating to these forward-looking statements, please refer to the risks and uncertainties section of the MD&A.

3 INTRODUCTION TO IBEX

3.1 Enzymes

The Company, through its wholly owned subsidiary, IBEX Pharmaceuticals Inc., manufactures and markets enzymes for biomedical use.

Up to July 31, 2019, IBEX produces its enzymes at its sites in Montreal, Quebec, and in North Liberty, Iowa, as well as at a third party manufacturing facility monitored by IBEX personnel. As of July 31, 2019, the Iowa facility was closed and production of products produced at that site was transferred to the Montreal site (see section 13).

The Company's products are sold directly by the Company to manufacturers of medical devices, quality control labs and academic research institutions.

Heparinase I is the most important of the IBEX enzymes. Its potential lies in its ability to cleave heparin and low molecular weight heparins and thereby neutralize the effects of heparin and heparinoids, which are drugs commonly used in hospitals and which interfere with haemostasis tests. Heparinase I recognizes and cleaves a pentasaccharide sequence which occurs in both unfractionated heparin and the low molecular weight heparins, thereby neutralizing their anticoagulant activity and thus facilitating the accurate measurement of haemostasis.

IBEX heparinase I is made via a proprietary process and is the only heparinase I approved for use in clinical diagnostics in North America and Europe.

In addition to making and selling enzymes, IBEX also provides lyophilization services for the making of disposable medical device components used in the hemostasis point-of-care market.

3.2 Arthritis Assays

IBEX develops, manufactures and sells arthritis assay kits which enable the study of both the synthesis and degradation of cartilage components. These assays are powerful tools in the study of osteo and rheumatoid arthritis. These assays are a result of both internal research and development, and the in-licensing of technology from academic research institutions.

IBEX arthritis diagnostic kits and services are marketed and sold for research use only ("RUO") to pharmaceutical companies, clinical research organizations and academic institutions. These diagnostic kits are marketed through distributors in Europe and Japan, and directly by IBEX in North America and the rest of the world. The kits are produced in IBEX facilities.

4 RESULTS OF OPERATIONS: Q4 FISCAL 2019

4.1 Summary of Quarterly Results

The following table is a summary of selected quarterly consolidated financial information of the Company for each of the eight most recently completed quarters.

(in thousands of dollars, excluding per share amounts)	July 31		April 30		January 31		October 31		Full Year	
	2019 $	2018 $	2019 $	2018 $	2019 $	2018 $	2018 $	2017 $	2019 $	2018 $
- Revenues	1,167	1,265	669	1,389	1,433	893	1,039	1,183	4,308	4,730
- Net (loss) earnings	(583)	(19)	(519)	210	43	(416)	(209)	130	(1,268)	(95)
- (Loss) earnings per common share	(0.02)	-	(0.02)	0.01	-	(0.02)	(0.01)	0.01	(0.05)	-
- Comprehensive (loss) income	(588)	(8)	(508)	238	44	(447)	(202)	151	(1,254)	(66)

Net Loss for the Quarter

The Company recorded a net loss of $583,039 during the fourth quarter ended July 31, 2019 compared to net loss of $19,258 for the same period year ago. This change of $563,781 can be attributed to several factors including:

- Loss before income taxes: The Company recorded loss before income taxes of $643,227 during the fourth quarter ended July 31, 2019 compared to earnings before income taxes of $41,944 for the same period year ago. This negative change of $685,171 is related mainly to an increase in expenses of $588,377 (see section 4.4), and a decrease in revenues of $96,794.

- Income tax (recovery) expense: During the quarter ended July 31, 2019, income tax recovery totaled $60,188 compared to an income tax expense of $61,202 in the same period year ago. The income tax recovery and expense are related to the temporary differences.

4.2 Foreign Exchange

The tables below show the fluctuation in the Canadian/US dollar exchange rates which can have a significant impact on the Company's results. Average rates are used to translate revenues and expenses for the period mentioned; closing rates are used to translate assets and liabilities of foreign operations, as well as monetary assets and liabilities at the end of the reporting period.

Consolidated foreign exchange (gain) loss		
Quarter ended	**July 31, 2019**	July 31, 2018
Balance sheet revaluation		
• US cash	**$8,327**	($37,377)
• US Trade receivables	**$9,855**	$36,284
• Other US accounts	**$2,030**	($25,524)
Total (gain) loss on revaluation	**$20,212**	($26,617)

Canadian/US dollar		
Quarter ended	**July 31, 2019**	July 31, 2018
Average rate	**1.3282**	1.3044
Closing rate	**1.3148**	1.3017

4.3 Revenues for the Quarter

Note: While the Company reports in Canadian dollars, the US dollar is the Company's selling currency. As such, fluctuations in the Canadian/US dollar exchange rate can have a significant impact on the reported revenue figures.

Revenues for the quarter ended July 31, 2019 totaled $1,167,706, a decrease of $96,794 (8%) compared to the same period year ago. The decrease in revenues traces mainly to a reduction in sales to two customers, one of whom is facing generic competition in China, and another customer who had been purchasing significant quantities of product in Fiscal 2017 for the development of a new diagnostic test whose development program was completed in Fiscal 2018 leaving that customer with sufficient inventory to cover its introductory market needs during our Fiscal 2019.

The net decrease of $96,794 in revenues vs. the same period year ago can be attributed to an actual decrease in revenues of $116,433 (US$87,663) and a positive variance of $19,639 due to the impact of currency exchange.

The negative variance of US$87,663 vs. the same quarter in the previous year can be attributed to volume of $107,248 and new products of US$6,310, offset by a positive variance in product mix of US$25,895.

Revenues Variations – Quarter ended	July 31, 2019 vs. July 31, 2018
Volume/mix/new products impact:	
• Decrease due to volume USD	($107,248)
• Increase due to product mix USD	$25,895
• Decrease due to new products USD	($6,310)
Total decrease due to volume/mix/new products USD	($87,663)
Currency impact:	
• Total decrease due to volume/mix/new products CAD	($116,433)
• Currency positive effects in CAD	$19,639
• Total decrease in CAD	($96,794)

During fourth quarter ended July 31, 2019, the average currency rate was 1.3282 compared to 1.3044 in the same quarter last year. This translates to a gain for the Company since it sells in US dollars and reports in Canadian dollars.

4.4 Total Expenses for the Quarter

Total expenses in the fourth quarter of fiscal 2019 increased to $1,810,933 compared to $1,222,556 in the same quarter year ago. The increase of $588,377 is related mainly to a non-cash impairment charge of $344,250 on the building and machinery and equipment related to the closure of BRP operation facility in Iowa, an increase in salaries and benefits expense of $238,391 (of which $183,360 in severance expense related to the Iowa facility), a negative impact of inventory allocation of $154,939, partially offset by a decrease in contracts and collaborators expenses of $163,411.

Expense details		
Quarter ended	**July 31, 2019**	July 31, 2018
Cost of sales[1]	**$716,809**	$655,393
R&D expenses[1]	**$47,650**	$103,495
SG&A expenses[1]	**$621,301**	$435,355
Depreciation of PPE[2]	**$69,258**	$68,288
Foreign exchange loss (gain)	**$20,212**	($26,617)
Financial expenses - net	**$4,026**	$6,642
Total expenses before impairment and other gains	**$1,479,256**	$1,242,556
Impairment on property, plant and equipment	**$344,250**	-
Other gains	**($12,573)**	($20,000)
Total expenses	**$1,810,933**	$1,222,556

1- Excludes related depreciation expense for the purposes of this presentation.
2- PPE = Property, plant and equipment and intangible assets.

4.4.1 Cost of Sales

The Company uses the actual-cost method of recording its production costs rather than a standard-cost method (because of the practicalities of the Company's production, the standard-cost method is unsuitable). While the actual-cost method is most suitable to the Company's processes, it does result in wide swings from quarter to quarter in the cost of sales due to the "inventory allocation" effect (if more goods are produced in a quarter than are sold, there is a positive effect on the results; the reverse is true if more goods are sold than are produced).

Cost of sales consists principally of the costs of supplies, royalties, manufacturing labour and the allocation of fixed overheads.

Cost of sales		
Quarter ended	**July 31, 2019**	July 31, 2018
Revenues	**$1,167,706**	$1,264,500
Cost of sales[3]	**$775,594**	$712,224
Gross margin %	**34%**	44%

3- Includes related depreciation expense for the purposes of this presentation.

The decrease in gross margin traces to cost allocation (the level of transfer of salaries, supplies, royalties and overhead to inventory) rather than to an increase in the costs of materials or labour.

4.4.2 Research and Development Expenses

Research and development (R&D) expenses consisted primarily of personnel expenses, laboratory supplies and external service providers. During the quarter ended July 31, 2019, research and development expenses totaled $55,134 compared to $103,495 in the same period year ago. The decrease of $48,361 traces mainly to a decrease in contracts and collaborators.

4.4.3 Selling, General and Administrative Expenses

During the quarter ended July 31, 2019, selling, general and administrative (SG&A) expenses totaled $621,301 compared to $435,355 in the same period year ago. The increase of $185,946 traces mainly to an increase in salaries and benefits expense (of which $183,360 in severance expense related to the Iowa facility).

4.4.4 Impairment of Property, Plant and Equipment

An impairment charge of $344,250 was recorded in the quarter ended July 31, 2019 due to the closure of our facility in Iowa. The impairment accounts for the difference between the realizable value (fair value less cost to sell) as at July 31, 2019, and the carrying amount of the assets.

4.4.5 Income Tax (Recovery) Expense

During the quarter ended July 31, 2019, income tax recovery totaled $60,188 compared to an income tax expense of $61,202 in the same period year ago. The income tax recovery and expense are related to the temporary differences.

IBEX

5 RESULTS OF OPERATIONS FOR THE YEAR ENDED JULY 31, 2019

5.1 Summary of Year Results

The Company recorded a net loss of $1,267,682 for the year ended July 31, 2019 compared to net loss of $95,189 for the same period year ago. This change of $1,172,493 can be attributed to several factors including:

- Loss before income taxes: The Company recorded a loss before income taxes of $1,327,870 for the year ended July 31, 2019 compared to a loss before income taxes of $33,987 for the same period year ago. The negative change of $1,293,883 is primarily attributable to an increase in expenses of $872,604 (see section 5.4) and a decrease in revenues of $421,279 (see section 5.3).

- Income tax (recovery) expense: For the year ended July 31, 2019, income tax recovery totaled $60,188 compared to an income tax expense of $61,202 in the same period year ago. The income tax recovery and expense are related to the temporary differences.

Net loss		
Year ended	**July 31, 2019**	July 31, 2018
Revenues	**$4,308,220**	$4,729,599
Net expenses	**$5,636,190**	$4,763,586
Loss before income taxes	**($1,327,870)**	($33,987)
Income tax (recovery) expense	**($60,188)**	$61,202
Net loss	**$1,267,682**	($95,189)
Loss per share, basic and diluted	**($0.05)**	($0.00)

5.2 Foreign Exchange

The table below shows the fluctuation in the Canadian/US dollar exchange rates which can have a significant impact on the Company's results. As mentioned in section 4.2, average rates are used to translate revenues and expenses for the period mentioned; closing rates are used to translate assets and liabilities of foreign operations, as well as monetary assets and liabilities at the end of the reporting period.

Consolidated cumulative foreign exchange (gain) loss		
Year ended	**July 31, 2019**	July 31, 2018
Balance sheet revaluation		
• US Cash	**($31,266)**	($85,463)
• US Trade receivables	**$2,906**	($26,220)
• Other US accounts	**($14,768)**	$824
Total gain on revaluation	**($43,128)**	($110,859)

Canadian/US dollar		
Year ended	**July 31, 2019**	July 31, 2018
Average rate	**1.3235**	1.2737
Closing rate	**1.3148**	1.3017

For a more detailed explanation of the foreign exchange impact, see Risks and Uncertainties in section 8.9.

5.3 Revenues for the Year

Revenues for the year ended July 31, 2019 totaled $4,308,320 compared to $4,729,599 for the same period year ago. The decrease in revenues of $421,279 traces mainly to a reduction in sales to two customers, one of whom is facing generic competition in China, and another customer who had been purchasing significant quantities of product in Fiscal 2017 for the development of a new diagnostic test whose development program was completed in Fiscal 2018 leaving that customer with sufficient inventory to cover its introductory market needs during our Fiscal 2019.

Changes in currency rates also had a significant impact on the sales variance vs. year ago. While the net decrease in revenues vs. the same period year ago was $421,279, this was comprised of $604,081 (US$456,767) in actual revenue decrease partially offset by $182,802 in positive currency impact.

The negative variance in revenues came from a volume variance of US$417,459, a product mix variance of US$21,641 and a new products variance of US$17,667.

Revenues Variations – Year ended	July 31, 2019 Vs. July 31, 2018
Volume/mix/new products impact:	
• Decrease due to volume USD	($417,459)
• Decrease due to product mix USD	($21,641)
• Decrease due to new products USD	($17,667)
Total decrease due to volume/mix/new products USD	($456,767)
Currency impact:	
• Total decrease due to volume/mix/new products CAD	($604,081)
• Currency positive effects in CAD	$182,802
• Total decrease in CAD	($421,279)

5.4 Total Expenses for the Year

Total expenses for the year ended July 31, 2019 totaled $5,636,190 compared to $4,763,586 for the same period year ago. The increase in operating expenses of $872,604 is mainly attributable to an increase in salaries and benefits expense of $601,354 due to new hires, severance expenses ($183,360 due to the closure of the facility in Iowa), a change in Company policy (see section 5.4.3), an impairment expense on property, plant and equipment of $344,250 (also related to the closure of the facility in Iowa), partially offset by a decrease in contracts and collaborators' expense of $116,098.

Expense details		
Year ended	**July 31, 2019**	July 31, 2018
Cost of sales[4]	**$2,712,543**	$2,688,896
R&D expenses[4]	**$296,637**	$247,683
SG&A expenses[4]	**$2,053,218**	$1,685,410
Depreciation of PPE	**$279,780**	$284,376
Foreign exchange gain	**($43,128)**	($110,859)
Financial expenses - net	**$15,463**	$33,080
Total expenses before impairment and other gains	**$5,314,513**	$4,828,586
Impairment on property, plant and equipment	**$344,250**	-
Other gains	**($22,573)**	($65,000)
Total expenses	**$5,636,190**	$4,763,586

4- Excludes related depreciation expense for the purposes of this presentation.

5.4.1 Cost of Sales

Cost of sales consists principally of the costs of supplies, royalties, manufacturing labour and the allocation of fixed overheads. For further explanation on the determination of the cost of sales, see section 4.4.1 above.

Cost of sales		
Year ended	**July 31, 2019**	July 31, 2018
Revenues	**$4,308,320**	4,729,599$
Cost of sales[5]	**$2,949,432**	2,925,395$
Gross margin %	**32%**	38%

5- Includes related depreciation expense for the purposes of this presentation.

The decrease in gross margin traces to cost allocation (the level of transfer of salaries, supplies, royalties and overheads to inventory) rather than to an increase in the costs of materials or labour.

5.4.2 Research and Development Expenses

Research and development (R&D) expenses for the year ended July 31, 2019 totaled $304,121 compared to $247,683 for the same period year ago. The increase of $56,438 traces mainly to an increase in salaries and benefits expense.

The primary focus of the R&D is the improvement of our arthritis assay and early-stage development on a new application for the enzyme diamine oxidase.

5.4.3 Selling, General and Administrative Expenses

Selling, general and administrative (SG&A) expenses for the year ended July 31, 2019 totaled $2,053,218 compared to $1,685,410 for the same period year ago. The increase of $367,808 is mainly due to an increase in salaries and benefits expense of $396,417 (of which $183,360 in severance expense related to the Iowa facility, $83,705 resulting from a change in the Company policy regarding personnel time off and overtime), partially offset by a decrease in share-based compensation expense of $56,689.

5.4.4 Impairment of Property, Plant and Equipment

An impairment charge of $344,250 was recorded in the year ended July 31, 2019. For further information, see section 4.4.4.

5.4.5 Income tax (Recovery) Expense

Income tax recovery totaled $60,188 compared to an income tax expense of $61,202 for the same period year ago. The income tax recovery and expense are related to the temporary differences.

6 LIQUIDITY AND CAPITAL RESOURCES

6.1 Overview

Liquidity risk is the potential risk that the Company will not be able to meet its financial liabilities when due. The Company's financial liabilities include its accounts payable and accrued liabilities presented on the consolidated statement of financial position, which are due within the next 12 months. The Company manages liquidity risk by maintaining adequate cash balances to discharge its liabilities when due.

As at July 31, 2019, the Company had net working capital of $2,838,173 compared to net working capital of $3,619,456 as at July 31, 2018. Cash and cash equivalents decreased by $560,513 during the fiscal year to $2,579,859.

As at:	**July 31, 2019**	April 30, 2019	January 31, 2019	October 31, 2018	July 31, 2018
Cash and cash equivalents	**$2,579,859**	$2,980,584	$3,327,402	$2,858,008	$3,140,372
Net working capital	**$2,838,173**	$3,068,584	$3,556,616	$3,447,689	$3,619,456

Management believes that the Company has sufficient funds to meet its obligations and planned expenditures for the ensuing twelve months as they fall due. In assessing whether the going concern assumption is appropriate, management takes into account all available information about the future, which is at least, but not limited to, twelve months from the end of the reporting period.

6.2 Contractual Obligations

Contractual obligations are operating lease commitments and the Company's long-term debt.

	Year ending July 31,					
(in thousands of dollars)	Total	2020	2021	2022	2023	2024
Contractual obligations	$790	$188	$192	$152	$147	$111
Long-term debt[6]	$1,307	$97	$97	$97	$97	$97
Total	$2,097	$285	$289	$249	$244	$208

6- Includes interest and principal.

7 LOOKING FORWARD

As always, the future financial results of the Company are difficult to predict as the Company's customers have significant variations in their purchasing patterns.

We expect to see revenues in Fiscal 2020 to be roughly equivalent with Fiscal 2019, however, with the closure of the Iowa facility, there will be a substantial reduction in expenses, and we are projecting a small positive EBITDA for the year.

It should be noted that Earnings Before Interest, Tax, Depreciation & Amortization ("EBITDA") is not a performance measure defined by IFRS, but we, as well as investors and analysts, consider that this performance measure facilitates the evaluation of our ongoing operations and our ability to generate cash flows to fund our cash requirements, including our capital expenditures program. Note that our definition of this measure may differ from the ones used by other public corporations. The elements include in the Company's EBITDA are: Net earnings (loss), Depreciation of property, plant, equipment and intangible assets, Impairment of property, plant and equipment, Interest-Net, Income tax expense (recovery).

8 RISKS AND UNCERTAINTIES

The results of operations and financial condition of the Company are subject to a number of risks and uncertainties and are affected by a number of factors outside the control of Management.

8.1 Dependence on Key Customers

IBEX is highly dependent on a few key customers. A change in their needs due to changes in technology, production efficiencies or market demand can have a significant effect on the profitability of the Company.

8.2 Market Demand

IBEX products are sold to device manufacturers, pharmaceutical companies for pre-clinical research, and contract research organizations for clinical studies. As such, IBEX is dependent on successful marketing by device manufacturers and, in the case of our arthritis assays, the frequency and size of pre-clinical and clinical studies. A decrease in demand for such products could have a material adverse effect on the Company.

8.3 Regulatory Approval

Since IBEX produces assays for research and development and device components for third parties, and is not the manufacturer of record, the cost of regulatory compliance, while not insignificant, is manageable within the context of the Company's turnover to remain competitive. However, there is no guarantee that this may not change in the future. Any such changes might have the effect of significantly increasing the cost of doing business for IBEX.

8.4 Intellectual Property

IBEX places great importance on the protection of its intellectual property and has a portfolio of patents and patent applications that it intends to enforce. However, unauthorized parties may infringe on the Company's patents or obtain information that is proprietary, and there can be no assurance that the Company's patent applications will be approved or that it will be able to successfully defend its existing patents in the case of infringement. Further, it is not clear whether the patents issued or that may be issued to IBEX will provide the Company with any competitive advantages, or if any such patents will be the target of challenges by third parties, whether the patents of others will interfere with IBEX's ability to market its products or whether third parties will circumvent IBEX's patents by means of alternate processes. It may be possible for others to develop products that have the same effect as IBEX's products on an independent basis.

8.5 Competition

The impact of competition from other companies developing novel heparin reversal agents or arthritis assays may negatively affect IBEX's anticipated revenue streams. Certain of the companies which could be considered IBEX's competitors have substantially more financial and technical resources, more extensive research and development capabilities and greater marketing, distribution, production and human resources than IBEX does.

8.6 Financial Resources

IBEX has limited financial resources and limited opportunities to raise additional capital should the occasion warrant. There can be no assurance that IBEX will be able to improve or maintain a positive cash flow if events in the marketplace change materially.

8.7 Reliance on Key Personnel

IBEX relies upon a small staff of key employees who possess the knowledge and expertise to continue the Company's operations. There is no assurance that the Company will be able to retain its key personnel, or readily replace those who may leave.

8.8 Contingencies

In the normal course of operations, claims may arise against the Company with respect to products which have been sold in the past. The Company recognizes liabilities for such contingencies when management determines that it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. The Company is currently not party to any such litigation proceedings that are expected to have a material adverse effect on its results of operations or financial position.

8.9 Foreign Exchange Risks

The Company is exposed to currency risks due to its export of goods manufactured in Canada. A change in the currency exchange rate between the Canadian dollar and the US dollar could have a material effect on its consolidated results of operations, financial position or cash flows. From time to time, the Company mitigate such risks by using foreign exchange forward contracts to hedge contracted net cash inflows and outflows of U.S. dollars. As at July 31, 2019, the Company had no outstanding forward contracts.

As mentioned above, the Company is exposed to foreign exchange risk primarily as a result of revenues denominated in US dollars. Monetary balances denominated in foreign currencies as at July 31, 2019 and July 31, 2018 were as follows:

	July 31, 2019		July 31, 2018	
	CA$	**US$**	CA$	US$
Cash and cash equivalents	**754,512**	**573,861**	902,616	693,413
Trade and other receivables	**526,285**	**400,277**	532,155	408,815
Trade and other payables	**58,113**	**44,199**	16,797	12,904

8.10 Interest Rate Risk

The Company's interest rate risk related to the long-term debt is fixed for five years. The interest rate will be revised based on the weekly average yield on US Treasury Securities adjusted.

The interest rate was revised to 4.20% (previously at 4.25%) for five years in January 2018.

Given the above, the Company considers the interest rate risk to be low. A 0.5% change in interest rates would not have a material impact on net loss for the year ended July 31, 2019.

8.11 Credit Risk

Financial instruments that potentially subject the Company to credit risk include cash and cash equivalents, as well as trade and other receivables. Cash and cash equivalents consist of bank balances and money market funds maintained at financial institutions with high credit ratings. Therefore, the Company considers the risk of non-performance for cash and cash equivalents to be low.

The aging of trade accounts receivable as at July 31, 2019 was as follows:

	CA$	%
Current	760,709	91
Past due 31-90 days	71,844	9
Past due over 90 days	-	-
	832,553	100

The Company's exposure to credit risk for trade accounts receivable for customers with greater than 10% of the total balance was as follows:

	July 31, 2019 %	July 31, 2018 %
Customer 1	**29**	35
Customer 2	**19**	-
Customer 3	**13**	14
Customer 4	**-**	11

8.12 Fair Value of Financial Instruments

The Company has evaluated the fair value of its financial instruments based on the current interest rate environment, related market values and current pricing of financial instruments with comparable terms. The carrying value of its financial instruments is considered to approximate fair value with the exception of long-term debt.

The fair value of the Company's long-term debt was estimated at $933,982 (US$710,361) as at July 31, 2019, as compared to $907,074 (US$696,838) on July 31, 2018, based on discounted future cash flows, using market interest rates available as at July 31, 2019 and 2018.

Fair value is used to determine the values at which these instruments could be traded in a current transaction between willing parties. When these financial instruments are not traded in public markets, their fair value is established based on a set of predetermined criteria, which minimize the subjectivity of valuation. The Company categorizes its financial instruments according to three hierarchical levels:

Level 1 - Measurement based on quoted prices (unadjusted) in active markets for identical assets and liabilities;

Level 2 - Valuation techniques based primarily on observable market data; and

Level 3 - Valuation techniques not based primarily on observable market data.

As at July 31, 2019 and 2018, there are no financial instruments that were accounted for using fair value.

9 RELATED PARTY TRANSACTIONS

During the years ended July 31, 2019 and 2018, other than the transactions and amounts described in Note 9 in our audited consolidated financial statements, the Company did not have any other related party transactions.

10 CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. It is possible that actual results could differ from those estimates. We have identified the following areas which we believe require management's most subjective judgments, often requiring the need to make estimates about the effects of matters that are inherently uncertain and may change in subsequent periods.

10.1 Valuation of Unrecognized Tax Attributes

Periodically, judgment is required in determining whether deferred income tax assets are recognized on the statement of financial position. Deferred income tax assets require management to assess the probability that the Company will generate taxable profits in future periods in order to utilize deferred income tax assets. Once the evaluation is completed, if the Company believes that it is probable that some portion of deferred income tax assets will be realized, a deferred income tax asset is recognized on the balance sheet. Estimates of future taxable income are based on forecasted cash flows from operations and the application of existing tax laws in each jurisdiction. To the extent that future cash flows and taxable income differ significantly from estimates, the ability of the Company to realize the net deferred income tax assets recorded at the reporting date could be impacted. Additionally, future changes in tax laws in the jurisdictions in which the Company operates could limit its ability to obtain tax deductions in future periods.

Management judgment is required in determining whether a deferred income tax liability is recognized on temporary differences arising on investments in subsidiaries. Judgment is necessary in assessing management's intentions about the reinvestment of undistributed profit in the foreseeable future. Estimates on reinvestments are based on forecasts and on estimates of financial requirements of both the Company and its subsidiaries. To the extent that future results and financial requirements differ significantly from estimates, the deferred income tax liability provided on temporary differences arising from investments in subsidiaries recorded at the reporting date could be impacted.

10.2 Impairment of Non-Financial Assets

Assets are reviewed for an indication of impairment at each statement of financial position date upon the occurrence of events or changes in circumstances indicating that the carrying value of the assets may not be recoverable and when criteria of assets held for sale are met. This determination requires significant judgment. Factors which could trigger an impairment review include, but are not limited to, significant negative industry or economic trends and current, historical or projected losses that demonstrate continuing losses, decrease in market capitalization and deferral of capital investments.

The Company’s recoverable amount measurement with respect to the carrying amount of non-financial assets are based on numerous assumptions and may differ significantly from actual recoverable amount.

11 ACCOUNTING STANDARDS AND AMENDMENTS

New and amended accounting standards adopted

During the year, the Company adopted the following new and amended accounting standards retrospectively along with any consequential amendments without restatement of comparative figures.

IFRS 9 “Financial Instruments”

On August 1 2018, the Company adopted IFRS 9, *Financial Instruments*. IFRS 9 replaces IAS 39, *Financial Instruments: Recognition and Measurement* (International Accounting Standards (“IAS”)) with a single approach to determine whether financial assets and financial liabilities are measured at amortized cost or fair value.

As a result of the adoption of IFRS 9, management has changed its accounting policy for financial assets and financial liabilities retrospectively, for assets and liabilities that continued to be recognized at the date of initial application. The adoption of IFRS 9 did not impact the carrying value of any financial assets or financial liabilities on the transition date.

(i) Classification

The Company classifies its financial instruments in the following categories: at fair value through profit or loss (“FVTPL”), at fair value through other comprehensive income (loss) (“FVTOCI”) or at amortized cost. The Company determines the classification of financial assets at initial recognition. The classification of debt instruments is driven by the Company’s business model for managing the financial assets and their contractual cash flow characteristics. Equity instruments that are held for trading are classified as FVTPL. For other equity instruments, they are also classified as FVTPL unless on the day of acquisition the Company makes an irrevocable election (on an instrument-by-instrument basis) to designate them as at FVTOCI. Financial liabilities are measured at amortized cost, unless the are required to be measured at FVTPL (such as instruments held for trading or derivatives) or the Company has opted to measure them at FVTPL. The Company completed a detailed assessment of its financial assets and financial liabilities as at August 1, 2018. The following table shows the original classification under IAS 39 and the new classification under IFRS 9:

Financial instrument	**Classification – IAS 39**	**Classification – IFRS 9**
Cash and cash equivalents	Loans and receivables	Amortized cost
Trade and other receivables	Loans and receivables	Amortized cost
Trade and other payables	Other financial liabilities	Amortized cost
Long-term debt	Other financial liabilities	Amortized cost
Derivatives	Fair value through earnings or loss	Fair value through earnings or loss

(ii) Measurement

Financial assets at FVTOCI

Elected investments in equity instruments at FVTOCI are initially recognized at fair value plus transaction costs. Subsequently, they are measured at fair value, with gains and losses recognized in other comprehensive loss without subsequent reclassification to net income.

Financial assets and financial liabilities at amortized cost

Financial assets and financial liabilities at amortized cost are initially recognized at fair value plus or minus transaction costs, respectively, and subsequently carried at amortized cost less any impairment.

Financial assets and financial liabilities at FVTPL

Financial assets and financial liabilities carried at FVTPL are initially recorded at fair value and transaction costs are expensed in the statement of loss and comprehensive loss. Realized and unrealized gains and losses arising from changes in the fair value of the financial assets and financial liabilities held at FVTPL are included in the statement of loss and comprehensive loss in the period in which they arise. Where management has opted to recognize a financial liability at FVTPL, any changes associates with the Company's own credit risk will be recognized in the other comprehensive loss without subsequent reclassification to net loss.

(iii) Impairment of financial assets at amortized cost

The Company recognizes a loss allowance for expected credit losses on financial assets that are measured at amortized cost. At each reporting date, the Company measures the loss allowance for the financial asset at an amount equal to the lifetime expected credit losses if the credit risk on the financial asset has increased significantly since initial recognition. If at the reporting date, the financial asset has not increased significantly since initial recognition, the Company measures the loss allowance for the financial asset at an amount equal to the twelve month expected credit losses. The Company shall recognize in the statement of loss and comprehensive loss, as an impairment gain or loss, the amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date to the amount that is required to be recognized.

For trade receivables, the Company applies the simplified approach which requires expected lifetime losses to be recognized from initial recognition of the receivables. There was no impact on adoption of this approach.

The Company assumes that there is no significant increase in credit risk for debt-instruments that have a low credit risk.

(iv) Derecognition

Financial assets

The Company derecognizes financial assets only when the contractual rights to cash flows from the financial assets expire, or when it transfers the financial assets and substantially all of the associated risks and rewards of ownership to another entity. Gains and losses on derecognition are generally recognized in the statement of loss and comprehensive loss. However, gains and losses on derecognition of equity instruments classified as FVTOCI are transferred to Company's capital.

Financial liabilities

The Company derecognizes financial liabilities only when its obligations under the financial liabilities are discharged, cancelled or expired. Generally, the difference between the carrying amount of the financial liability derecognized and the consideration paid and payable, including any non-cash assets transferred or liabilities assumed, is recognized in the statement of loss and comprehensive loss.

(v) Derivatives

All derivative instruments are recorded in the consolidated statement of financial position at fair value at each statement of financial position date. Derivatives may be embedded in other financial instruments (the "host instrument"). Derivatives are treated as separate derivatives if their economic characteristics and risks are not closely related to those of the host instrument, the terms of the derivative are the same as those of a stand-alone derivative, and the combined contract is not measured at fair value. These derivatives are measured at fair value at each statement of financial position date with subsequent changes recognized in net loss in the period in which the changes arise.

The Company enters into certain contracts for the sale of non-financial items that are denominated in currencies other than the Canadian dollar, the Company's functional currency. In cases where the foreign exchange component is not leveraged and does not contain an option feature and the contract is either denominated in the functional currency of any party to the contract, the non-financial item is routinely denominated in the currency of the contract or the currency of the contract is commonly used in the economic environment in which the transaction takes place, the derivative is considered to be closely related and is not accounted for separately. The fair value of financial instruments is determined using recognized valuation models using observable market-based inputs.

IFRS 15 “Revenue from Contracts with Customers”

On August 1, 2018, the company adopted IFRS 15, *Revenue from Contracts with Customers*. IFRS 15 specifies how and when to recognize revenue as well as requires the provision of more informative and relevant disclosures. IFRS 15 supersedes IAS 18, Revenue, IAS 11, Construction Contracts, and other revenue-related interpretations.

The adoption of this standard resulted in changes in accounting policies, but in no significant adjustment to the quantum and timing of amounts recognized in the financial statements. In accordance with the transition provisions in IFRS 15, the Company adopted the new standard retrospectively.

The following is the Company’s new accounting policy for revenues under IFRS 15:

> Revenue is recognized when delivery has occurred and there is no unfulfilled obligation that could affect the customer’s acceptance. These criteria are generally met at the time the product is leaving the Company’s premises and at that point, control has passed to the customer. Revenue is measured based on the price specified in the Company’s Order Confirmation sent to the customer. The Company does not have any multiple-element revenue arrangements.

Accounting standards issued but not yet applied

New accounting standards, amendments and interpretations issued but only effective for the Company beginning on or after August 1, 2019 are as follows:

IFRS 16 “Leases”

In January 2016, the IASB issued IFRS 16, “Leases”, which will replace IAS 17, “Leases”. On August 1st, 2019, the Company will apply the new standard retrospectively without restatement of comparative amounts. The new standard requires lessees to recognize a lease liability reflecting future lease payments and a “right-of-use asset” for virtually all lease contracts, and record it on the balance sheet, except with respect to lease contracts that meet limited exception criteria. The Company will elect to the modified retrospective approach measuring the right-of-use asset at an amount equal to the lease liability.

There will be an increase to both assets and liabilities upon adoption of IFRS 16, and changes to the presentation of expenses associated with the lease arrangements, and, to a lower extent, changes in the timing of expense recognition.

The Company preliminary assessment indicates that the increase in both its total assets and total liabilities will be around $678,000 on the consolidated balance sheet as at August 1st, 2019. The Company is in the final stages of validating the final amounts of the impact on its consolidated balance sheet, which will be disclosed in the Company’s unaudited condensed interim consolidated financial statements of the first quarter of fiscal year 2020. Therefore, there could be changes in the amounts specified above.

Lease-related expenses previously recorded in cost of sales, research and development expenses, and selling, general and administrative expenses, primarily as occupancy costs, will be recorded as depreciation using a straight line method on the right-of-use assets and the lease liabilities will be unwound using an effective interest rate method and recorded as Finance expenses. The application of these two methods will result in more expenses charged to net loss earlier in the lease term and less expenses charged in the later years.

While IFRS 16 will not cause a difference in the amount of cash transferred between the parties of a lease, it will change the presentation of cash flows relating to leases in the Company's consolidated statement of cash flows.

The Company will elect to include in the right-of-use assets and lease liability non-lease components that are in scope of IFRS 16, which include, but are not limited to, common area charges and administrative charge. Other occupancy costs not within the scope of IFRS 16 will continue to be expensed as incurred and recorded in cost of sales, research and development expenses, and selling, general and administrative expenses.

The lease term, for the majority of leases, vary between 2 and 5 years, which include the initial base term and renewal option(s) when applicable.

12 OUTSTANDING SHARE DATA

12.1 Authorized

As at November 6, 2019, the Company's authorized capital stock consists of an unlimited number of:

- First preferred shares, cumulative, redeemable, issuable in series. The first series consisted of 150,000 shares, convertible into common shares at a rate of 188.68 voting common shares for each preferred share. All preferred shares were converted into common shares;
- Second preferred shares, cumulative, redeemable, convertible, issuable in series;
- Third preferred shares, issuable in series; and
- Common shares.

12.2 Issued and Outstanding

The following details the issued and outstanding equity securities of the Company.

12.2.1 Common Shares

As at November 6, 2019, the Company has 24,773,244 common shares outstanding.

12.2.2 Stock options

As at November 6, 2019, the Company has 1,645,000 stock options outstanding with exercise prices ranging from $0.05 to $0.24 and expiry dates ranging from December 2019 to December 2028.

As at November 6, 2019, on an if-converted basis, these stock options would result in the issuance of 1,645,000 additional common shares at an aggregate exercise price of $321,150.

13 CLOSURE OF IOWA PRODUCTION FACILITY

As previously announced in March 2019, the Company closed operations at its North Liberty, Iowa production facility as of July 31, 2019.

The Iowa production facility came with the 2013 acquisition of BRP a company based in North Liberty, Iowa. BRP produced, among other things, a series of enzymes used in clinical diagnostics which complements the IBEX enzyme product line. The production rights to certain BRP products have been licensed by IBEX Pharmaceuticals and all production of the BRP clinical diagnostics enzymes have been transferred to the IBEX Montreal production facility. The bacterial fermentation suite in Montreal is currently operational and all products produced in this facility were approved by Environment Canada.

The North Liberty facility has been put up for sale as a functioning protein production facility with all the equipment required for the production of clinical diagnostic enzymes and botanical extracts. The property consists of a fermentation suite with a 300 litre bio-reactor, 2,200 square feet of wet-lab space, 1,200 square feet of production space for downstream production and 4,450 square feet of warehouse space. The facility sits on 5.43 acres of land, of which 3.54 acres is available for future expansion.

In the event that there are no buyers for the site as a protein production facility, the Company will move certain valuable equipment to expand its production capacity in Montreal, and market the site for general light industry purposes.

The Company has incurred $227,099 in out-of-pocket expenses (severance and legal fees) as part of the closure.

Furthermore, as a result of certain changes in the atmosphere regarding buildings use in the City of North Liberty, Iowa, the company has taken a non-cash impairment of $344,250 related to the building and machinery and equipment.

The initial operating benefit from the closure of the site will begin to flow into the financial results in the second quarter of Fiscal 2020 (the quarter ending January 31, 2020). Additional operating expenses will be eliminated when the property is sold or leased.

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