

# Management Discussion & Analysis

**Financial Years Ended  
September 30, 2018 and  
September 30, 2017**  
(expressed in Canadian Dollars)



January 28, 2019

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This Management Discussion and Analysis "MD&A" explains the material changes in BluMetric's financial condition and results of operations for the year ended September 30, 2018. The MD&A should be read in conjunction with the Company's audited consolidated financial statements and related notes for the year ended September 30, 2018 as well as the MD&A and audited consolidated financial statements and notes for the year ended September 30, 2017. The information provided in this document is not intended to be a comprehensive review of all matters concerning the Company.

This discussion and analysis of the financial condition and the results of operations contain forward-looking statements about expected future events and the financial and operating performance of the Company. These statements, which include descriptions of the Company's business strategy, potential variances impacting the Company's internal and external performance drivers, and the Company's ability to meet its ongoing working capital needs through the ensuing 12 months, are included in the "Selected Financial Information", "Liquidity", and "Business Outlook" sections which follow. These statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. This MD&A also makes reference to certain non-GAAP measures to assist users in assessing BluMetric's performance. Non-GAAP measures do not have any standard meaning prescribed by IFRS and are therefore unlikely to be comparable to similar measures presented by other issuers. These measures are identified and described under the section "Financial Terms and Definitions".

## **Business Overview and Strategy**

In 1977, BluMetric started by providing water and soil assessment services to its clients, primarily in the land development market. For over forty years, BluMetric, a Canadian company, has provided cost-effective and sustainable solutions to help its clients overcome their most difficult water related environmental and business challenges. The Company has evolved into a broad spectrum environmental solutions provider setting a standard of care that follows water from its source to its return to the environment. BluMetric's strategy is to deliver a solution that will help its clients successfully manage their water related environmental, health, and safety responsibilities. BluMetric builds partnerships with its customers by providing a long-term holistic approach to water management. This degree of service differentiates BluMetric from competitors that simply provide a one size fits all product or service.

BluMetric focusses its efforts in North America, a geographic region with significant growth potential in markets where BluMetric has had its greatest success. Operating from nine offices, the Company has served hundreds of clients from the Panama Canal to the Arctic Circle. The business continues to stabilize as BluMetric focuses on value-added solutions for target industries and clients. In order to stay competitive, the Company will continue to develop alliances with technology companies where these alliances either augment the Company's technologies or expand the Company's geographic reach. BluMetric is proud to be a trusted provider of services to many of Canada's northern Indigenous communities; working side by side to make the environment a safer place.

The BluMetric team of experts consists of highly experienced and motivated scientists, environmental specialists, chemists, hydrogeologists, engineers, occupational and industrial hygienists, environmental auditors, project managers, financial specialists, trades and support personnel.

## **Technology and Innovation**

Innovation is driven by client demands as they face more stringent environmental regulations or the emergence of a previously unregulated contaminant. Finding a solution for a specific problem is the creative process that differentiates BluMetric from its competitors. An innovative solution must be scientifically and economically viable. All potential new services, products, or technologies go through a stage gate process to confirm the technology works and the potential market is of sufficient size to provide a return on investment. BluMetric's Ammonia Removal System fits these requirements. New technologies, such as Total Cyanide and PFC reduction are being evaluated by the stage gate process.

**Ammonia Removal** – As stated in previous MD&A documents, ammonia is recognized as a significant contaminant responsible for the degradation of water quality. Government and public pressure has not abated and will continue to be the motive force behind the implementation of stricter effluent limits.

In September, BluMetric received a U.S. Patent for its proprietary ammonia removal process, MARS. This membrane-based system reduces ammonia by isolation and direct adsorption. Environmental compliance, reduced capital cost and reduced operational cost are the main advantages of the MARS product. Prime applications are in the mining, landfill leachate, food and beverage, and industrial markets.

During FY2018, BluMetric completed the installation of two full-scale ammonia removal systems and completed two extensive pilot testing programs. Results from these activities ratified the viability of the product and has spawned further interest from mining and industrial clients, especially with clients generating and managing landfill leachate.

**Cyanide** – In late 2016 mining regulators changed the cyanide limits for the effluent exiting the tailings ponds and mining facilities. In close association with the Company's technology partners, BluMetric tested a new treatment process for total cyanide reduction and based on the results, a patent application has been generated. In FY2018 this cyanide treatment system was incorporated into BluMetric's trailer mounted pilot unit and showed positive results; field testing will continue in 2019.

**Emerging Contaminants** – 1-4 Dioxane, poly fluorinated compounds (PFC), cobalt, and selenium have emerged as contaminants of concern. BluMetric has been working successfully with its technology partners to develop processes and systems to treat, adsorb, isolate, reduce, and destroy these compounds. The evaluation of the technology and potential markets began in 2018 and will continue in 2019.

BluMetric continues to commercialize its service offering and its products to achieve a higher degree of efficiency and profitability. In 2018, BluMetric pushed commercialization into optimizing project management and effectively delivering additional services.

## **Sales and Marketing**

BluMetric has narrowed its business development focus to four key markets where it offers the deepest skill sets.

In North America the focus is on these key markets:

- Mining
- Military
- Commercial and Industrial (site remediation and wastewater)
- Government (with specific expertise in Northern Canada)

BluMetric has aligned the sales and marketing team, making structural changes within, to more accurately reflect and support the markets where BluMetric thrives. The team is focussed on the four Markets identified, with experienced Market Leaders supported by dedicated Client Managers. The client-centric approach involves an emphasis on understanding clients' environmental issues and the proactive identification and prevention of problems. The Client Manager approach ensures an integrated view, evaluation and solution of client issues.

Satisfied clients provide repeat business as well as incredibly valuable word-of-mouth advertising to allied companies. BluMetric has historically had excellent success through this mechanism of revenue generation and this was also the case in 2018. BluMetric's sales approach has always capitalized on referral business. In 2018 BluMetric began to actively leverage the successes of past projects to expand and diversify Client partnerships and service offering portfolio within each Market. This effort is driven by BluMetric's Strategic Business Development group who identify and pursue new client relationships and strategic partnerships. As part of the effort to expand market share BluMetric continues to foster strong working relationships with associations, academia, Indigenous groups and complimentary organizations working in the Company's defined Markets.

### **Board of Directors**

The Board of Directors currently consists of six members, four of whom are independent. The independent directors reflect a wide range of senior experience in the management of publicly traded and privately held companies. The Board members have expertise in finance, operations, management, and governance.

### **Executive Management**

The Senior Management team comprises: Scott MacFabe, Chief Executive Officer, who began on March 1, 2018; Vivian Karaiskos, Chief Financial Officer; Dan Scroggins, Senior Vice President, Special Projects; Tim Beckenham, Senior Director, Operations; and Wayne Ingham, Director, Strategic Business Development.

This team has extensive business and environmental experience and is well supported by highly qualified and experienced managers that lead business development, engineering, production, health and safety, operations, financial, research, field service, and every other aspect of the corporation.

### **Our People**

The BluMetric team consists of approximately 162 environmental scientists, engineers, hydrogeologist, industrial hygienists, project managers, skilled tradespeople and support personnel. They are experts in providing a comprehensive range of environmental services and engineered solutions, from contaminated site assessment and remediation to complete turn-key wastewater treatment systems.

Staffing levels fluctuate seasonally with the hiring of contract staff and students to meet peak demand periods. The Company strives to recruit and retain highly skilled employees who are able to use their technical expertise to deliver creative solutions to complex environmental issues.

## Diversity

BluMetric is committed to the principles of diversity. The Company strives to create and support an inclusive work environment that respects and values the contributions of all employees and their individual differences. BluMetric's employees come from a wide range of cultural, ethnic, educational, religious, and political backgrounds. Women represent 48% of the workforce from welders and field service technicians to the top members of the executive team and Board of Directors.

To that end, BluMetric's goal is to capitalize on the strength derived from diversity while affording the team members the greatest opportunity to excel, grow, and contribute to business and society.

## Selected Financial Information

The following table shows selected consolidated financial data for BluMetric for the three most recently completed fiscal periods.

**For the years ended September 30, 2018, September 30, 2017 and September 30, 2016**

	<b>2018</b>	<b>2017</b>	<b>2016</b>
	\$	\$	\$
<b>Total revenue</b>	32,246,586	30,528,483	31,493,595
<b>Gross margin</b>	6,760,929	6,439,220	6,348,459
<b>Gross margin percentage of total revenue</b>	21%	21%	20%
<b>Total operating expenses</b>	5,670,222	5,413,175	4,927,183
<b>Earnings before provision for income tax</b>	543,580	334,367	588,365
<b>Net earnings</b>	2,659,198	334,367	588,365
<b>Weighted average number of shares outstanding - basic</b>	28,494,885	27,880,140	27,880,140
<b>Earnings per share- basic and diluted</b>	0.09	0.01	0.02
<b>Total assets</b>	14,522,893	10,728,957	12,887,742
<b>Working capital</b>	4,005,477	1,079,023	3,381,893
<b>Long term debt</b>	3,676,004	3,823,328	4,504,648
<b>Shareholders' equity</b>	5,237,735	2,362,147	2,022,090

## RESULTS

The following are the Company's major achievements during the year:

- Sales approach – BluMetric strengthened its focus by narrowing its markets and establishing Market Leaders to ensure business opportunities within each sector are more rigorously and centrally managed and controlled.
- Organization changes – BluMetric continued to implement a number of organizational initiatives designed to facilitate the development and delivery of fully integrated environmental solutions. This includes consolidating the Company into a single sales and operations entity.
- Production facility – BluMetric continued to leverage its production facility in Ottawa, Ontario to provide development of a wider delivery of tailored environmental solutions for clients. An example in 2018 includes the design, fabrication and installation of environmental monitoring equipment coupled with sophisticated remote telemetry for data acquisition.
- Integrated service offerings – During 2018 BluMetric's clients' multifaceted needs for integrated environmental solutions continued to be met. An example of such necessity was illustrated in Canada's far north where the client required environmental site assessment, topographic survey, onsite laboratory, soil remediation, petroleum hydrocarbon contaminated water treatment and indoor air quality services. BluMetric was able to rapidly deliver fully integrated solutions to an extremely remote region.
- Locations – Through the year BluMetric has made a number of strategic moves with respect to its geographic presence. The Company made the decision to divest its operations in Central America, while at the same time expanding its presence to Thunder Bay, Ontario as a result of signing a five year care and maintenance contract for a Tier 1 mining client in the region.

## Results of Operations

	Three Months Ended				Twelve Months Ended			
	Sept 30, 2018	Sept 30, 2017	Change	Change	Sept 30, 2018	Sept 30, 2017	Change	Change
	\$	\$	\$	%	\$	\$	\$	%
Revenue	8,562,502	7,586,788	975,714	13%	32,246,586	30,528,483	1,718,103	6%
Gross profit	1,820,278	1,693,998	126,280	7%	6,760,929	6,439,220	321,709	5%
Gross margin %	21%	22%			21%	21%		
Operating costs	1,477,188	1,579,687	(102,499)	-6%	5,670,222	5,413,175	257,047	5%
EBITDA <sup>1</sup>	426,612	198,356	228,256	115%	1,269,065	1,403,768	(134,703)	-10%
Earnings before provision for income tax	208,952	(53,783)	262,735	489%	543,580	334,367	209,213	63%
Net earnings	2,324,570	(53,783)	2,378,353	4422%	2,659,198	334,367	2,324,831	695%
Weighted average common shares outstanding	28,675,695	27,880,140			28,494,885	27,880,140		
Earnings per share- basic and diluted	0.08	(0.00)			0.09	0.01		
Total assets					14,522,893	10,728,957	3,793,936	35%
Working capital					4,005,477	1,079,023	2,926,454	271%
Long term debt					3,676,004	3,823,328	(147,324)	-4%
Shareholders' equity					5,237,735	2,362,147	2,875,588	122%

Note 1: EBITDA is a non-GAAP measure (see "Financial Terms and Definitions") and is calculated as net income before interest expense, income taxes, depreciation, and amortization

## Discussion of Results and Financial Condition for the Financial Year Ended September 30, 2018

This analysis compares the financial year ended September 30, 2018 with the financial year ended September 30, 2017.

### Revenue

During the financial year ended September 30, 2018, total revenue was \$32.2 million (September 30, 2017 - \$30.5 million), an increase of approximately \$1.7 million (6%).

BluMetric continued a high level of support to the mining sector at existing operations through 2018. The Company experienced increased exposure to greenfield mining projects in 2018 including providing support to a major base metals company for environmental permitting for a proposed new mine in Northern Ontario, and the environmental feasibility study for a proposed gold mine in northern Manitoba. In addition, the Company increased the engineering services it provides by focusing on the detailed design of remedial solutions for care and maintenance of closed mining facilities.

BluMetric was awarded a number of military contracts in late fiscal year 2018, including a three year, \$14.4 million contract for the repair and overhaul, as required by the Royal Canadian Navy (RCN), of their Shipboard Reverse Osmosis Desalination (SROD) purification units. BluMetric was contracted to provide engineering support, field support, and immediate response service for these units in both the RCN's operational and disaster relief roles. In addition, BluMetric was awarded a \$1.76 million contract from DND for 90 Day Sustainment Kits required to sustain the Reverse Osmosis Water Purification Units (ROWPU) for the Canadian Armed Forces. Work on both these contracts started in August and September of 2018. The Company has strengthened



its relationship with DND by providing recommendations to upgrade and extend the service life of the SROD and ROWPU units. Implementing these changes increased the reliability of the systems, while reducing the life-cycle costs. BluMetric has performed exceptionally well on these contracts and is now a well-respected provider of drinking water systems in the marine market, as evidenced by the recent award of the SeaSpan contract.

BluMetric maintains a cadre of well-trained field service reps, who are ready to support DND where ever their mission takes them within 24-hours of notification. Dedication to the well-being of the Canadian forces is a hallmark for BluMetric.

BluMetric completed a number of challenging projects in the Canadian Arctic. Supported by the Yellowknife and satellite Whitehorse office much of this work is completed under Standing Offer Agreements and competitive offerings. During 2018 several large projects were again undertaken in all three territories, applying the knowledge and understanding of the challenges imposed through remote working conditions, weather constraints, regional representation and governance.

These projects included:

- Final commissioning and operation of a satellite telemetry based system that allows for real time monitoring and observation of remediation sites located in extremely remote locations. This represents the deployment of new equipment and cutting edge technology previously not deployed in these innovative configurations or to such remote locations. Great potential was previously anticipated in this area and continues to be realized with new ongoing work in this market.
- Response to several sizable fuel oil spills in the arctic combining the need for rapid response and coordination of many resources in challenging settings. The projects required the unique combination of environmental site assessment, remediation, occupational health and safety and water treatment expertise, all areas in which BluMetric excels and supported with internal resources.
- Assessment of contaminated soils in a land treatment facility in the Northwest Territories including potential for emerging contaminants frequently used in firefighting activities. Following complete characterization of the contents of the treatment facility the contents were processed to acceptable standards for disposal at a facility within the NWT. The BluMetric team facilitated the approvals through the regulatory agencies and provided contractor oversight.
- Implementation of a Chemical Management System program through 2018 in Nunavut. The program included inventorying all chemicals, packaging and removal of redundant and legacy chemicals and implementation of a chemical database for use by the Department of Education staff. The program required the integration of many services including industrial hygiene, waste management, information management and management systems while addressing the logistical challenges of efficiently accessing every community and school in Nunavut.
- Commercial/Industrial – BluMetric provided support to the property development sector in many regions with a significant increase in the number and scale of projects completed for well-established developers and legal clients in the Greater Toronto Area

(GTA) across Ontario and Quebec. Projects included development of brownfields, rezoning applications as well as property transfers in these regions and in the Territories. In addition, two full scale ammonia removal systems were completed; one 2000 cubic meter per day system for a gold mine and one 500 cubic meter per day system for a leachate management facility. Two extensive pilot projects were undertaken to demonstrate the effectiveness of the ammonia system at a landfill and mine site. One 500 cubic meter COBRA plant was also installed to provide a 99% reduction in BOD. These are new technology products that did not have any revenue from FY 2017.

Gross margin for the financial year ended September 30, 2018 was \$6.8 million, or 21% (September 30, 2017 - \$6.4 million or 21%).

Operating costs for the year ended September 30, 2018 were \$5.7 million, a \$300,000 increase from the prior year. Operating costs include \$250,000 in severance costs related to the Company's previous CEO representing salary, bonus and vacation. In addition, the prior year included a loss on sale of property of approximately \$69,000.

Finance costs of \$547,127 for the year ended September 30, 2018 were decreased from the \$691,678 reported a year earlier. This was due primarily to the repayment of a mortgage on the sale of an office building in Ottawa in Q3 2017, as well as the repayment and conversion to equity of some of the restructured trade debt that was interest bearing.

Earnings before provision for income tax for the year ended September 30, 2018 was \$543,580 compared to \$334,167 in the previous year.

For the year ended September 30, 2018, the Company recognized a deferred income tax asset of \$2.1 million since the Company has been taxable since FY 2015. The deferred income tax asset will be used to offset future taxable income and is comprised mainly of loss carry forwards which will expire between 2029 and 2034 and deductions for tax related to capital (CCA) and scientific research and development (SR&ED). Previously, the Company had taken a full allowance against this asset.

Net earnings for the year ended September 30, 2018 was \$2.7 million compared to \$0.3 million for the year ended September 30, 2017, largely due to the recognition of the deferred income tax asset of \$2.1 million, as described above.

Shareholders' equity increased to \$5.2 million at September 30, 2018 from \$2.4 million at September 30, 2017. The improvement is a result of recognizing the deferred income tax asset, continued profitability, a debt conversion that took place in Q1 of 2018 and the issuance of 283,917 common shares on April 9, 2018 pursuant to a Settlement Agreement with a key management member at a conversion price of \$0.22 per share.

The Consolidated Statement of Financial Position as at September 30, 2018 showed working capital of \$4.0 million, compared to \$1.1 million reported a year ago. Two items negatively impacted working capital by approximately \$3.4 million as at September 30, 2017. The first relates to a mortgage on the Company's building at 3108 Carp Road coming due on July 16, 2018 and therefore being reclassified as a current liability. The second relates to the reclassification of the Company's five year term loan, which was required under IFRS as a result of a cross default provision in the Company's loan arrangement. In the current year, the Company was in compliance with all its covenants.

### EBITDA (see "Financial Terms and Definitions")

	For the three months ended September 30		For the twelve months ended September 30	
	2018	2017	2018	2017
	\$	\$	\$	\$
Net income (loss)	<b>2,324,570</b>	(53,783)	<b>2,659,198</b>	334,367
Finance costs	<b>134,138</b>	168,094	<b>547,127</b>	691,678
Future income tax recovery	<b>(2,115,618)</b>	-	<b>(2,115,618)</b>	-
Depreciation of property, plant and equipment	<b>71,610</b>	19,739	<b>99,280</b>	120,495
Amortization of intangible assets	<b>11,912</b>	64,306	<b>79,078</b>	257,228
EBITDA	<b>426,612</b>	198,356	<b>1,269,065</b>	1,403,768

The Company recorded EBITDA of \$426,612 and \$1.3 million for the three and twelve months ended September 30, 2018.

## Quarterly Results

Quarterly financial information for the eight quarters ended September 30, 2018

(in 000's, except as otherwise indicated)

	<b>Q4 2018</b>	<b>Q3 2018</b>	<b>Q2 2018</b>	<b>Q1 2018</b>
	<b>Sep 30, 2018</b>	<b>Jun 30, 2018</b>	<b>Mar 31, 2018</b>	<b>Dec 31, 2017</b>
Revenue	8,563	8,416	7,708	7,560
Cost of sales	6,743	6,763	6,091	5,889
Gross profit	1,820	1,653	1,616	1,671
Gross margin %	21%	20%	21%	22%
Operating expenses	1,477	1,459	1,311	1,422
Finance costs	134	128	136	149
Earnings before provision for income tax	209	65	169	101
Net earnings	2,325	65	169	101
Weighted average common shares- basic	28,675,695	28,650,735	28,391,778	28,263,869
Income (loss) per share- basic and diluted	0.08	0.00	0.01	0.00

  

	<b>Q4 2017</b>	<b>Q3 2017</b>	<b>Q2 2017</b>	<b>Q1 2017</b>
	<b>Sep 30, 2017</b>	<b>Jun 30, 2017</b>	<b>Mar 31, 2017</b>	<b>Dec 31, 2016</b>
Revenue	7,587	7,434	7,219	8,288
Cost of sales	5,893	5,989	5,615	6,592
Gross profit	1,694	1,445	1,604	1,696
Gross margin %	22%	19%	22%	20%
Operating expenses	1,580	1,205	1,349	1,280
Finance costs	168	170	165	188
Earnings before provision for income tax	(54)	70	90	228
Net earnings (loss)	(54)	70	90	228
Weighted average common shares- basic	27,880,140	27,880,140	27,880,140	27,880,140
Income (loss) per share- basic and diluted	(0.00)	0.00	0.00	0.01

## Quarterly Trend Analysis

Historically, the Company's consulting projects have followed a seasonal pattern with the second and third quarters, ended March 31 and June 30 respectively, experiencing relatively lower levels of activity when compared to the balance of the year. This seasonality is in large part weather-related, as it is easier and more productive to conduct outdoor environmental investigations, site remediation, and construction-related projects in Canada during the summer. In addition, the December holiday period can have a significant impact on activity levels possible in that quarter (BluMetric's first quarter) depending on how it falls in the month.

#### **Q4 18 vs Q4 17**

For the fourth quarter of 2018 revenue was \$8.6 million compared to \$7.6 million in the fourth quarter of 2017. This was due to increased project activity, mainly in the Commercial and Industrial markets. Gross profit increased by \$0.1 million to \$1.8 million in the quarter from \$1.7 million in Q4 2017. Operating costs decreased by \$0.1 million to \$1.5 million from \$1.6 million for the same quarter in the previous year. The Company recognized a deferred income tax asset in the fourth quarter of 2018 in the amount of \$2.1 million, which significantly increased net earnings to \$2.3 million from a net loss of \$54,000 compared to the prior year quarter.

#### **Q3 18 vs Q3 17**

Revenues for the third quarter of 2018 were \$8.4 million compared to \$7.4 million for the quarter ended June 30, 2017, an increase of approximately \$1.0 million, mainly as a result of increased engineered solutions projects when compared to the prior year, primarily in the mining sector. Net earnings for the quarter are \$65,200 compared to \$69,900 for same quarter in the prior year. Gross profit improved to \$1.7 million in the quarter from \$1.4 million in the same quarter the prior year representing a 20% gross margin and a slight improvement over the 19% achieved in the same quarter last year. Operating costs increased to \$1.5 million from \$1.2 million in the same quarter in the prior year. In the previous year quarter (June 30, 2017) there were vacant positions that have since been filled, as well as bad debt recoveries of approximately \$60,000.

#### **Q2 18 vs Q2 17**

Revenues in the second quarter of 2018 were \$7.7 million compared to \$7.2 million for the quarter ended March 31, 2017, an increase of \$500,000. While there was an increase of \$1 million in water systems projects, there was an offsetting decrease in consulting projects of approximately \$500,000. BluMetric has seen an increase in mining, commercial/industrial and government projects. Net earnings for the quarter are \$168,900 compared to \$89,800 in the same quarter the prior year. Gross profit remained relatively consistent at \$1.6 million which represents 21% of revenue compared to 22% of revenue the same quarter the prior year. Operating costs are also fairly consistent at \$1.3 million quarter over quarter with a few minor offsetting variances.

#### **Q1 18 vs Q1 17**

Revenues in the first quarter of 2018 were \$7.6 million compared with \$8.3 million for the quarter ended December 31, 2016, a decrease of \$700,000 or 9%. The decrease comes primarily from consulting projects but is offset by an increase in engineered solutions projects primarily in the mining and commercial/industrial sectors as existing and newly signed systems are being delivered. These types of projects were nearing completion in the same quarter last year. Net earnings for the quarter were \$101,000 for the quarter compared to \$228,000 the same quarter a year earlier. Gross profit was nearly flat with \$1.7 million in both quarters, though the gross margin improved from 20% to 22%. Operating costs increased from \$1.3 million in Q1 2017 to \$1.4 million in Q1 2018. This increase is primarily due to a \$250,000 severance for the previous CEO of the Company which was recognized in Q1, with a slight offset in bad debt expense.

## Summary of Cash Flows

	<b>Year ended September 30</b>	
	<b>2018</b>	<b>2017</b>
	<b>\$</b>	<b>\$</b>
<b>Cash provided by (used in):</b>		
Operating activities, before working capital	995,361	964,167
Operating activities, working capital	<u>(2,064,019)</u>	<u>(1,294,815)</u>
<b>Operating activities, after working capital</b>	<b>(1,068,658)</b>	<b>(330,648)</b>
<b>Investing activities</b>	<b>67,777</b>	<b>775,455</b>
<b>Financing activities</b>	<b>978,764</b>	<b>(716,773)</b>
<b>Increase (decrease) in cash and cash equivalents</b>	<b>(22,117)</b>	<b>(271,966)</b>
Cash and cash equivalents - beginning of year	22,117	314,360
Bank indebtedness – beginning of year	(536,385)	(556,662)
Adjustment to bank indebtedness – beginning of year(*)	536,385	-
	<u><b>22,117</b></u>	<u><b>(242,302)</b></u>
Cash and cash equivalents - end of year	-	22,117
Bank indebtedness – end of year(*)	-	(536,385)
	<u>-</u>	<u><b>(514,268)</b></u>

(\*) In light of the company's cash management strategy, at the beginning of the current year it was determined more appropriate to include bank indebtedness as a financing activity

Cash used in operating activities of \$1.1 million in 2018 compares with cash used in operating activities of \$0.3 million in 2017. The majority of the year-over-year increase in cash used in operating activities resulted from higher investment in working capital, specifically unbilled revenue and accounts receivable.

In 2018, investing activities provided cash of \$0.07 million, which compares to cash provided of \$0.8 million in 2017. The variance relates primarily to proceeds on sale of an office building in 2017.

In 2018, cash provided by financing activities amounted to \$1.0 million, compared to cash used of \$0.7 million in 2017. The higher cash provided in 2018 was due largely to an increase in bank indebtedness which resulted from an increase in working capital investment.

## Liquidity

The Company's short-term credit facilities consist of an operating demand loan in the amount of \$2,000,000 with a \$500,000 sublimit for letters of credit. The facility carries a floating interest at prime plus 2.25%, is collateralized by a first ranking general security agreement over all of the Company's present and future assets, and is subject to margining based on the amounts of eligible accounts receivable. Each letter of credit must be 100% guaranteed in favour of the bank through a separate program provided by the Export Development Corporation. For the period ended September 30, 2018, the effective interest rate under this facility was 5.95% (2017 – 5.45%).

The Company also has a corporate credit card facility in the amount of \$165,000.

As at September 30, 2018, the Company had drawn \$1,544,136 on its operating demand loan (2017 - \$510,218) and it had drawn \$206,635 in outstanding letters of credit (2017 - \$199,211). The letters of credit expire on July 26, 2019.

The Company has certain covenants in accordance with its short-term credit facilities. As at September 30, 2018, the Company was in compliance with all its covenants.

In addition to the above credit facilities, the Company entered into an agreement with a lending institution on September 12, 2016 for a secured five-year term loan in the amount of \$2,500,000. This loan bears interest at a rate of 10% and requires the Company to pay royalty fees on gross revenue beginning February 2018. The royalty rate is tiered and applies at a rate of 0.35% of gross revenue up to \$38,000,000, and then decreases to 0.15% of gross revenue in excess of that amount. As at September 30, 2018 \$112,954 (2017 - \$106,254) was accrued in trade and other payables with respect to these royalties.

The Company has certain covenants in accordance with this term loan, as well as cross default provisions with the Company's credit under its short-term credit facility arrangement. As of September 30, 2018, the Company was in compliance with its covenants under the term loan agreement.

In fiscal year 2017, the Company was in default of one of its covenants under its short-term credit facilities covenants with respect to its fixed charge coverage ratio. This caused a cross-default with its term loan and the entire amount of the term loan was included in the current portion of long-term debt. The Company received a waiver, subsequent to September 30, 2017, from its lender of the cross-default provision of the term loan.

## **Business Outlook**

***The following comments include forward-looking information and users are cautioned that actual results may vary.***

In fiscal year 2019, the Company has aligned its sales and marketing team and will focus on obtaining new revenue contracts in key markets, efficiently implementing projects, improving cost control and completing the sale of its non-core assets.

The Company is targeting both organic revenue growth and growth through association with technology suppliers. The Company's focus will continue to be on improving margins on all company projects while reducing overhead costs.

The best opportunities for growth are on projects where the client's operating expenses can be reduced as a result of proposed solutions and where these solutions help clients meet more stringent regulatory requirements.

## **Capital Resources**

The Company's future growth strategy contemplates investment in various technologies and processes requiring capital for prototyping purposes. Accordingly, the Company may opportunistically approach capital markets for additional equity funding if conditions are favourable.

## **Business Risks**

The Company is subject to risks and uncertainties in the normal course of business that could materially affect the financial condition of the Company. These risks and uncertainties include, but may not be limited to, the following:

- Macroeconomic risk of recession in key markets or the economy as a whole;
- Reliance on key clients;
- Failure to retain and develop key personnel;
- Competition from companies which are better-financed or have disruptive technologies;
- Major swings in currency valuations after setting the price of foreign contracts; and
- Cybersecurity threats.

## **Critical Accounting Estimates and Judgements**

The reader is referred to the detailed discussion on critical accounting estimates and judgements found in Note 2 of the Company's audited consolidated financial statements and related notes for the year ended September 30, 2018.



## New Accounting Standards

Note 3 of the Company's audited consolidated financial statements and related notes for the year ended September 30, 2018 discusses IFRS standards and interpretations that are issued and will become effective for the Company on October 1, 2018.

## Off-Balance Sheet Arrangements

See contractual obligations section below for commitments related to equipment leases and leases related to properties occupied by the Company.

## Transactions with Related Parties

All related-party transactions are conducted under terms and conditions reflecting prevailing market conditions at the transaction date and are recorded at the amounts agreed upon by the parties.

The remuneration of key management personnel during the year was as follows:

	2018 \$	2017 \$
Salaries <sup>(1)</sup>	1,196,429	804,500
Short-term benefits	78,248	124,216
Share-based compensation	45,479	5,690
	1,320,156	934,406

(1) This includes \$250,000 pursuant to an employment contract with one of the Company's key management personnel whose term ended on November 30, 2017, as well as \$85,300 (2017 - \$94,000) for amounts paid to directors.

The Company is currently a party to a consulting agreement that, if terminated by the Company, would require royalties to be paid for a period of 20 years at a rate of 0.2% of the gross dollar value for all products sold by the Company that includes various patented or proprietary technologies developed by the consultant. The Company does not believe this obligation will have a material impact on the consolidated financial statements.

## Proposed Transactions and Subsequent Events

As at September 30, 2018 the property at 3108 Carp Road is for sale. Apart from this there were no significant assets or business acquisitions or dispositions being considered by the Company.

## Inter-Corporate Relationships

The Company sold its shares in its wholly owned subsidiary, BluMetric Tecnologias S.A. de C.V., located in El Salvador, effective June 30, 2018.

## Financial Instruments

The following table summarizes information regarding carrying values of the Company's financial instruments:

Classification	Measurement	2018		2017	
		Carrying value \$	Fair value \$	Carrying value \$	Fair value \$
Loans and receivables					
Cash	amortized cost	-	-	22,117	22,117
Accounts receivable	amortized cost	5,307,302	5,307,302	4,731,687	4,731,687
Unbilled revenue	amortized cost	4,659,396	4,659,396	3,444,855	3,444,855
Other assets	amortized cost	-	-	95,000	95,000
		<u>9,966,698</u>	<u>9,966,698</u>	<u>8,293,659</u>	<u>8,293,659</u>
Other financial liabilities					
Bank indebtedness	amortized cost	1,596,475	1,596,475	536,385	536,385
Trade and other payables	amortized cost	3,622,792	3,622,792	3,616,859	3,616,859
Demand loan	amortized cost	949,758	949,758	-	-
Long-term debt	amortized cost	2,726,246	2,656,667	3,823,328	3,823,328
Advances	amortized cost	50,000	48,004	60,000	58,786
Due to shareholders	amortized cost	16,638	16,638	55,502	55,502
		<u>8,961,909</u>	<u>8,890,334</u>	<u>8,092,074</u>	<u>8,090,860</u>

## Risk Management

The Company is exposed to various risks in relation to its financial instruments. The Company's financial assets and liabilities by category are summarized below. The main types of risk are credit risk, market risk and liquidity risk.

The Company's risk management is coordinated in close cooperation with the Board of Directors, and focuses on actively securing the Company's short to medium-term cash flows by minimizing the exposure to financial markets. The Company does not actively engage in the trading of financial instruments for speculative purposes nor does it write options.

## Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its obligations. The primary financial instrument that potentially exposes the Company to credit risk is accounts receivable.

The Company has credit evaluation, approval and monitoring processes intended to mitigate potential credit risks. The Company performs ongoing credit evaluations of new and existing customers' financial condition and reviews the collectability of its receivables in order to mitigate any possible credit losses.

The Company's management considers all financial assets, which are not impaired or past due for each of the September 30, 2018 and September 30, 2017 reporting dates are of good credit quality.

Accounts receivable that are past due and present a potential credit risk are as follows:

	<b>2018</b>	<b>2017</b>
	<b>\$</b>	<b>\$</b>
Past due 61 to 90 days	725,501	129,777
Past due greater than 90 days	954,617	844,914
Allowance for doubtful accounts	(429,055)	(168,877)
	<u>1,251,063</u>	<u>805,814</u>

The continuity of the allowance for doubtful accounts is as follows:

	<b>2018</b>	<b>2017</b>
	<b>\$</b>	<b>\$</b>
Balance - Beginning of year	168,877	115,724
Bad debt expense provision	340,218	303,512
Recoveries	(42,979)	(127,633)
Accounts written off	(37,061)	(122,726)
	<u>429,055</u>	<u>168,877</u>

At the end of the year, five customers (2017 - five customers) accounted for 52% (2017 - 36%) of accounts receivable.

## Liquidity risk

Liquidity risk is the risk the Company may not be able to meet its financial obligations as they come due. The Company currently settles all of its financial obligations out of cash and bank indebtedness. The ability to do so relies on the Company collecting its accounts receivable in a timely manner and by maintaining sufficient cash in excess of anticipated needs.

The following table outlines the liquidity risk associated with the Company's payment obligations as at September 30, 2018 and September 30, 2017, respectively.

	<b>2018</b>				
	<b>Total</b>	<b>Less than</b>	<b>4 - 12</b>	<b>1 - 5</b>	<b>Over 5</b>
	<b>\$</b>	<b>3 months</b>	<b>months</b>	<b>years</b>	<b>years</b>
		<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Bank indebtedness	1,596,475	1,596,475	-	-	-
Trade and other payables	3,622,792	2,713,261	909,531	-	-
Demand loan	975,000	975,000	-	-	-
Long-term debt	3,582,279	74,001	222,002	3,286,276	-
Advances	67,500	875	2,625	64,000	-
Due to shareholders	16,638	-	-	16,638	-
	<b>9,860,684</b>	<b>5,359,612</b>	<b>1,134,158</b>	<b>3,366,914</b>	<b>-</b>
	<b>2017</b>				
	<b>Total</b>	<b>Less than</b>	<b>4 - 12</b>	<b>1 - 5</b>	<b>Over 5</b>
	<b>\$</b>	<b>3 months</b>	<b>months</b>	<b>years</b>	<b>years</b>
		<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Bank indebtedness	536,385	536,385	-	-	-
Trade and other payables	3,616,859	2,876,582	740,277	-	-
Advances	81,000	1,050	3,150	76,800	-
Long-term debt	4,069,110	2,530,631	1,071,664	466,815	-
Due to shareholders	55,502	-	-	55,502	-
	<b>8,358,856</b>	<b>5,944,648</b>	<b>1,815,091</b>	<b>599,117</b>	<b>-</b>

## Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates and interest rates and will affect the Company's net earnings or the value of its financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable limits, while maximizing returns.

## Interest rate risk

Interest rate risk is the risk the fair value or future cash flows of financial instruments will fluctuate because of changes in interest rates. As at September 30, 2018, the Company had \$1,596,475 in bank indebtedness, which were floating rate obligations. A 1% increase in interest rates during the reporting period would decrease net earnings and equity for the period by approximately \$16,000 (2017-\$5,000).

## Foreign currency risk

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

The Company operates internationally and is therefore subject to foreign currency risk. The table below shows the Company's cash and financial instruments held in USD and their Canadian dollar equivalent:

	2018		2017	
	CA \$	US \$	CA \$	US \$
Cash	-	-	-	-
Accounts receivable	122,284	94,464	280,313	224,610
Bank indebtedness	(52,338)	(40,431)	26,167	20,967
Trade and other payables	(183,802)	(142,010)	2,346	1,880

The Company incurs expenses and earns revenues in Canadian and US dollars. To date the Company has not used foreign currency forward contracts or other hedging strategies to manage its foreign currency exposure.

A 10% strengthening of the US dollar against the Canadian dollar would have increased the net earnings and increased equity during the reporting period by approximately \$11,000 (2017-\$25,000).

## Contractual Obligations

BluMetric has commitments for equipment and premises under operating leases as follows:

	Premises \$	Equipment \$	Total \$
Within one year	718,114	55,141	773,255
Between one and five years	1,612,613	144,092	1,756,705
After five years	-	-	-
	<u>2,330,727</u>	<u>199,233</u>	<u>2,529,960</u>

There are no options to purchase the property at the expiry of the lease period.

BluMetric has principal repayment obligations under long-term debt balances as at September 30, 2018 as listed in the below table. Excluded from these amounts is \$164,656 in restructured trade debt which is postponed in favour of the Company's bank:

	\$
2019	27,823
2020	27,823
2021	2,494,351
2022	11,593
2023 and thereafter	<u>-</u>
	<u>2,561,590</u>

## Capital management

The Company's objective is to maintain a capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. Management defines capital as comprising the Company's total shareholders' equity, credit facilities, advances and long-term debt. In order to maintain or adjust its capital structure, the Company may issue or repurchase share capital, or obtain or reduce long-term debt. To date, no dividends have been paid to the Company's shareholders.

There were no changes in the Company's approach to capital management during the year ended September 30, 2018 (2017 – no change).

## Summary of Outstanding Shares and Dilutive Instruments

The Company currently has the following shares and dilutive instruments outstanding:

Shares:	28,675,695 common shares
Options:	1,642,875 options

## Financial Terms and Definitions

### Definition of Non-GAAP Measures

This Management Discussion and Analysis includes reference to and uses terms that are not specifically defined in IFRS and do not have any standardized meaning prescribed by IFRS. These non-GAAP measures may not be comparable to similar measures presented by other companies. The Company believes that the measures defined here are useful for providing investors with additional information to assist them in understanding components of the financial results.

**EBITDA.** EBITDA represents net income before interest expense, income taxes, depreciation of property and equipment, and amortization of intangible assets. The Company uses this measure as part of assessing operating performance. There is no direct comparable IFRS measure for EBITDA.

### Management's Responsibility for Financial Reporting

The consolidated annual financial statements of BluMetric Environmental Inc. and all the information in this Management Discussion and Analysis have been prepared by management, which is solely responsible for the integrity and fairness of the data presented, including the many amounts, which due to necessity, are based on estimates and judgments. The accounting policies followed in the preparation of these consolidated annual financial statements conform to International Financial Reporting Standards. When alternative accounting methods exist, management has chosen those that it deems most appropriate in the circumstances. Financial information presented throughout this report is consistent with that in the consolidated financial statements.

BluMetric maintains systems of internal accounting and administrative controls to provide reasonable assurance that the financial information is relevant, reliable and accurate and that transactions are authorized, assets are safeguarded and proper records are maintained.

The Board of Directors is responsible, principally through its Audit Committee, for ensuring that management fulfills its financial reporting responsibility.

### Additional Information

Additional information on the Company can be found at [www.blumetric.ca](http://www.blumetric.ca) and at [www.sedar.com](http://www.sedar.com).