# **BQE** Water

# **BQE WATER INC.**

# **MANAGEMENT'S DISCUSSION AND ANALYSIS**

For the years ended December 31, 2023 and 2022

# MANAGEMENT'S DISCUSSION AND ANALYSIS

The following Management's Discussion and Analysis ("MD&A") provides information that management believes is relevant to an assessment and understanding of our consolidated results of operations and financial condition. Management of the Company have prepared this document in conjunction with their broader responsibilities for reasonable assurance regarding the reliability of the financial reporting and the establishment and maintenance of adequate information systems and internal controls to ensure that the financial information is complete and reliable. Management also believes that any internal controls and procedures for financial reporting, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control systems are met. The Audit Committee of the Board of Directors, consisting of independent directors, has reviewed this document and all other publicly reported financial information, for integrity, usefulness, reliability and consistency.

This 2023 MD&A should be read in conjunction with our audited consolidated financial statements for the year ended December 31, 2023, under International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and interpretations of the IFRS Interpretations Committee ("IFRIC"). All financial information in this MD&A is derived from the Company's Financial Statements, as prepared on a going concern basis, which presumes the realization of assets and discharge of liabilities in the normal course of business operations for the foreseeable future. Our accounting policies are described in note 3 of our audited consolidated financial statements. All financial information is presented in **Canadian dollars** (the presentation currency of the Company's consolidated financial statements) and all tabular amounts are in \$000s, unless otherwise noted. This MD&A has been prepared as at April 25, 2024.

Certain statements contained in the MD&A constitute forward-looking statements. Such forward-looking statements involve a number of known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date the statements were made and readers are advised to consider such forward-looking statements in light of the risks.

# **OUR BUSINESS**

BQE Water Inc. ("BQE Water" or the "Company") is helping to make the mining and metallurgical industry more environmentally sustainable and profitable by implementing innovative water management and treatment solutions that support and improve operations in this sector. Central to our business model, BQE Water produces clean water and stable residues or saleable by-products, and we monetize the value of our unique process know-how through recurring revenues generated from plant operations services.

BQE Water is headquartered in Vancouver, British Columbia, Canada. The Company has regional offices in Chile and China, which are two key geographical markets for our business. The Company has been in operation for over 25 years, and draws upon the extensive experience of over 100 employees to deliver exceptional operational and technical services. BQE Water is listed on the TSX Venture Exchange under the symbol "BQE". Additional information may be found on our website at www.bqewater.com and on SEDAR at www.sedar.com.

# **OUR STRATEGY**

The Company's strategy is to apply our unique expertise and intellectual property ("IP") related to the treatment of mine water and metallurgical bleed streams to help clients minimize their life cycle costs and risks associated with water. Additionally, we recognize that sustained growth and the financial success of our business are linked to ongoing innovation and the expansion of our IP portfolio, activities we are actively engaged in through our own operations and through inquiries from clients evaluating new projects.

The Company monetizes the value of its IP and expertise through services that span the full life cycle of mining projects from pre-permitting to post-closure. The Company's primary service is the long-term operation of water treatment plants, designed by our team, to generate recurring revenues linked to plant performance. As the period between the identification of new projects and treatment plants entering their operating phase can be lengthy, we also generate revenues from technical services that are project specific and generally non-recurring in nature. As such, our services are grouped into two key areas:

# **Operational Services**

Revenues from operational services provided by the Company are recurring in nature and are earned through water treatment fees, support fees or through the sale of recovered base metals. Water treatment fees are either tolling fees charged per cubic metre of clean water treated and discharged subject to specific water quality criteria, monthly fees, hourly fees, or a combination of them. Support fees are earned for the Company's expertise linked to the achievement of operational targets and delivered through supervisory and ongoing operational support services. The Company also monetizes the value of its IP through joint ventures by sharing in the value of metals recovered from treating wastewater.

# **Technical Services**

Technical services provided by the Company can be grouped into consulting and technical innovation services. Consulting services help mining companies define water problems, identify opportunities for improving project performance and present solutions to address specific water management issues. Such services include feasibility & assessment studies, toxicity investigations, process engineering design, treatment plant commissioning and plant optimization. Technical innovation services offer our clients beneficial design and technological improvements drawn from our unique knowledge and expertise acquired from ongoing plant operations services. This also provides the Company with opportunities to develop new technologies, through either laboratory treatability assessments or field pilot demonstrations, as triggered by industry needs. These services allow us to follow projects through the entirety of their development and implementation phases, and to provide recurring operational services for our clients.

# **NON-GAAP MEASURES**

We use non-GAAP financial measures to supplement our consolidated financial statements presented in accordance with generally accepted accounting principles, or GAAP, to enhance overall understanding of the Company's current financial performance with investors and observers. Non-GAAP financial measures have limitations in that they do not reflect all amounts associated with our operational results as determined in accordance with GAAP. In addition, non-GAAP financial measures do not have any standardized meaning prescribed by GAAP and are unlikely to be comparable to similar non-GAAP financial measures presented by other companies. Non-GAAP financial measures should only be used to evaluate our operational results in conjunction with the corresponding GAAP measures.

# **Proportional Results**

To provide additional insight into our financial results, certain statements in this MD&A disclose the effective portion of results we would have reported if our Chinese joint venture operations had been proportionately integrated and are referred to as BQE Water's proportional share ("Proportional"). All Proportional financial measures disclosed in this MD&A are non-GAAP measures.

# **Proportional Revenues**

This non-GAAP financial measure of Proportional Revenue adds BQE Water's share of revenues from its China joint ventures to the Company's revenues reported under GAAP. Proportional Revenues for the year ended December 31, 2023 and 2022 are as follows:

(in \$'000s)	2023	2022
	\$	\$
Reported revenues under GAAP	18,137	12,158
Share of reported revenues from joint ventures	4,589	6,721
Proportional Revenues for the year	22,726	18,879

# **Adjusted EBITDA**

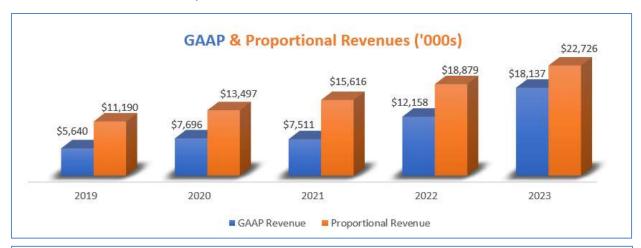
Adjusted EBITDA ("earnings before interest, taxes, depreciation and amortization") is intended to provide additional information only and does not have any standardized meaning under IFRS and may not be comparable to similar measures presented by other companies. It should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. Consequently, the presentation of Adjusted EBITDA enables shareholders to better understand the underlying financial performance of our business through the eyes of management. Adjusted EBITDA includes adjustments of the Company's Proportional share of joint venture results. The following table reconciles this non-GAAP measure to the most directly comparable IFRS measure of net income:

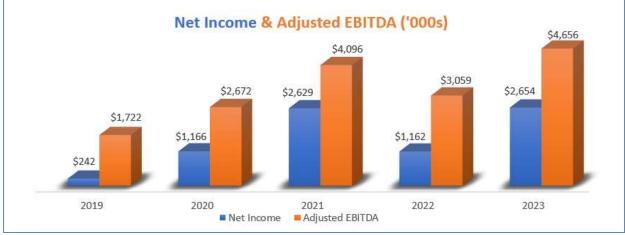
(in \$'000s)	2023	2022
	\$	\$
GAAP: Net income	2,654	1,162
deduct: net interest income, net	(211)	(30)
add: income taxes	268	613
add: depreciation and amortization	916	765
EBITDA	3,627	2,510
add: share-based payment expenses	466	671
deduct: other income	(51)	(82)
add: bad debt expense	473	8
deduct/add: net foreign exchange loss (gain)	141	(48)
Adjusted EBITDA	4,656	3,059

# **FINANCIAL HIGHLIGHTS**

- Achieved record Proportional Revenues of \$22.7 million in 2023, a 20% increase from 2022.
- Recorded historic high revenues under GAAP of \$18.1 million in 2023, a 49% increase compared to 2022.
- Share of income from China joint ventures was \$419,000, \$1.1 million lower than in 2022.
- Net income for the year was \$2.6 million compared to \$1.2 million in 2022, a 128% increase.
- Adjusted EBITDA was \$4.6 million compared to \$3.1 million the year prior, a 52% increase.
- Increased working capital by 47% year-over-year to \$10.5 million as at December 31, 2023.
- Grew net cash and cash equivalents by 27% year-over-year to \$7.9 million as of December 31, 2023.

Selected financial results for the last 5 years are as follows:







Selected financial results for the 3 and 12 months ended December 31, 2023 are as follows:

(in '000s)	3 months end	ed Dec. 31	12 months ended Dec. 31		
	2023	2022	2023	2022	
Revenues under GAAP	5,014	3,465	18,137	12,158	
Proportional Revenues	5,431	4,479	22,726	18,879	
Net income (loss)	249	(244)	2,654	1,162	
Adjusted EBITDA	541	(90)	4,656	3,059	

# **OPERATIONAL SERVICES HIGHLIGHTS**

Our operational services consist of the operation or technical supervision of water treatment plants, which generate recurring revenues from three main sources: sales of recovered metals, water treatment fees and operations support fees. The Company's operations by source of revenue are as follows:

Operations	Location	Revenue Source
JCC-BQE Joint Venture	Jiangxi province, China	Sales of recovered metals
MWT-BQE Joint Venture	Shandong province, China	Sales of recovered metals
Raglan Mine for Glencore	Northern Québec, Canada	Water treatment fees
Minto Mine for Government of Yukon	Yukon, Canada	Water treatment fees
Zhongkuang Metallurgical Facilities for MWT	Shandong province, China	Operations support fees
Zhaojin Metallurgical Facilities for MWT	Shandong province, China	Operations support fees
Power utility ash pond for WesTech	Eastern USA	Water treatment fees
Base metal project for a metal producer	Southwestern USA	Water treatment fees

# **JCC-BQE Joint Venture Operations**

Our 50/50 joint venture with partner Jiangxi Copper Company ("JCC") operates three water treatment plants at Dexing Mine and at Yinshan Mine in Jiangxi province of China. The volume of water treated and pounds of copper recovered by the plants fluctuate seasonally depending on precipitation levels in the region. The operating results for the 12 months ended December 31, 2023 are as follows:

(in '000s)	2023	2022
Water treated (cubic metres)	19,493	17,704
Copper recovered (pounds)	1,935	2,829

During 2023, all three plants met mechanical availability and process performance set by the Company. While the volume of water treated increased by 10% year-over-year, the mass of copper recovered decreased by 32%. The notable decrease in copper recovery compared to previous year can largely be attributed to the resource depletion in the waste rock dumps. We expect copper production in the coming years to fluctuate around this decreased level based on the lower grade waste rock currently stockpiled.

# **MWT-BQE Joint Venture Operations**

Our 20% share of MWT-BQE is with our 80% partner Beijing MWT Water Treatment Project Limited Company ("MWT") and together we operate a water treatment plant at a smelter in Shandong province of China. MWT-BQE generates revenues from the sale of zinc and copper recovered from smelter wastewater. The operating results for the 12 months ended December 31, 2023 are as follows:

(in '000s pounds)	2023	2022
Zinc recovered	162	527
Copper recovered	49	218

The mass of zinc and copper recovered decreased by 69% and 78% respectively. The smelter operated their production lines with ores from different sources which led to varying concentrations of zinc and copper in the feed composition and a fluctuation in the volume of wastewater treated by the plant. The joint venture has no control in the composition and volume of the feed that flows into the plant. During 2023, the plant was shut down intermittently as the value of zinc and copper in the feed was lower than the recovery cost of the metals.

# **BQE Water Operations**

The number of operating days contributing to water treatment or support fees for the 12 months ended December 31, 2023 are as follows:

(in days)	2023	2022
Raglan Mine water treatment plants	206	157
Minto Mine water treatment plant	312	127
Zhongkuang SART plant	364	349
Zhaojin SART plant	354	159
Water treatment plant for ash pond in Eastern USA	238	328
Water treatment plants in Southwest USA	363	248

The volume of water treated for the 12 months ended December 31, 2023 are as follows:

(in '000s cubic metres)	2023	2022
Raglan Mine water treatment plants	2,218	1,870
Minto Mine water treatment plant	938	378
SART plants in China	602	411
Water treatment plants in the USA	168	18

The Company, with our Inuit partner Nuvumiut Development, operates four water treatment plants at Raglan Mine for Glencore Canada Corporation ("Glencore"). From May to December 2023, we mobilized our operations team for the 20th operating season at the mine. The total volume of water treated across all four plants at Raglan Mine in 2023 increased by 19% compared to 2022.

Since August 2022, we have provided operational services for Minto Metals at Minto Mine in the Yukon. In May 2023, the customer ceased active operations at the mine and the Yukon Government stepped in to ensure the continuation of water management services in support of environmental protection. During 2023, while working directly for the Yukon Government, our team continued to treat and discharge clean water at the mine for the full season until plant winterization in October.

In 2021, we began operations of the Zhongkuang SART plant and the Zhaojin SART plant at metallurgical facilities in China. Both plants have been under our technical supervision since the start of full production. Both SART plants operated fully throughout 2023 without disruption.

In 2022, we began operations of a treatment plant utilizing our Selen-IX<sup>™</sup> process to remove selenium from ash pond water for WesTech Engineering ("WesTech"). In 2023, our operations team continued providing water treatment services with the Selen-IX<sup>™</sup> circuit to manage the presence of selenium in the feed.

In 2022, we completed the commissioning of a treatment plant utilizing a combination of nanofiltration and our proprietary selenium electro-reduction process for the simultaneous removal of selenium and sulphate from mine water for a base metal project in the American Southwest. In 2023, our team completed the performance test milestone for a 2<sup>nd</sup> newly constructed selenium removal water treatment plant which entered the operation phase in August. As a result, we are currently providing water treatment operation services for two water treatment plants in the American Southwest.

# **TECHNICAL SERVICES HIGHLIGHTS**

BQE Water's technical expertise and IP are applicable globally across broad areas of water management. Highlights of some of our technical services and technical innovation projects during 2023 are summarized below.

# **Trusted Advisory Services (Water Management and Water Studies)**

- Completed a pilot demonstration of selenium removal from mine water using Selen-IX™ at a gold mine in the US to meet end-of-pipe limit of less than 2 parts per billion.
- Completed a technical assessment of water treatment requirements and options for closure and post-closure at a mine in the Yukon overseen by the provincial government.
- Successfully completed commissioning of a new water treatment plant at a base metal mine in the US.
- Provided water treatment expertise to the executive team of a top tier metal producer in due diligence for an acquisition of an existing mining operation.
- Continued to provide engineering design services for three water treatment plants to support permitting of the KSM gold-copper project in British Columbia.
- Continued to provide engineering services for design for the construction of a new water treatment plant for water recycle at a gold mine in Mexico.
- Completed the water treatment pilot test campaign integrated into a rare earth elements metallurgical extraction project in Chile.
- Provided water treatment expertise and laboratory testing services in investigations of effluent toxicity at a mine in Eastern Canada.
- Completed a pilot scale demonstration of a new innovative method of managing thiosalts in mine effluents at an operating mine in Canada.
- Completed an operations performance and engineering analysis of bottlenecks in an existing reverse osmosis plant in Chile, and prepared a plan for upgrades to increase the plant capacity with minimal capital expense.
- Completed a laboratory scale program aimed at increasing water recovery and reducing brine waste for a reverse osmosis system being planned for implementation at a gold mine in BC.

# **Cyanide Management (Destruction and Recycle)**

- Completed laboratory testing and scoping level engineering design for a cyanide removal plant to meet effluent discharge of less than 7 parts per billion for a mine in development in the US.
- Completed a treatability assessment for the removal of cobalt and associated cyanide from an existing gold mine in Ontario.
- Continued with the engineering design for a third SART plant for Shandong Gold in China.

# 2023 COMMENTARY AND OUTLOOK FOR 2024

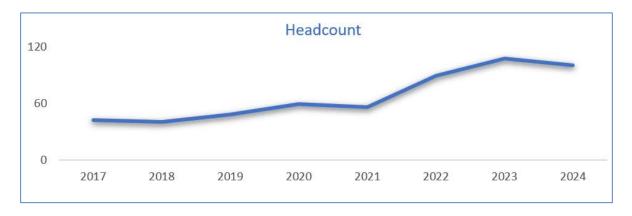
We are extremely pleased with our 2023 results, which delivered another set of new highs in several key financial metrics including Proportional Revenue, GAAP revenue, Adjusted EBITDA, and working capital.

BQE Water's 2023 financial performance is reflective of the success of our long-term business strategy, a key element of which is growing our recurring revenues from water treatment operations. This component of our revenues doubled between 2022 and 2023 and represented the main driver of our financial improvement year-over-year. The strong increase in recurring revenues in 2023 resulted from technical services delivered to customers in prior years since it typically takes several years for these technical services to mature into recurring operational services. Our business strategy is simultaneously centered on growing recurring revenue from water treatment fees rather than from the sale of recovered metals. In 2023, metals sales represented 20% of our Proportional Revenues, while water treatment fees grew to 36% of our Proportional Revenues. Our share of income from joint ventures, which earn revenues from metals sales, represented approximately 14% of our consolidated net income.

Despite our positive overall results in 2023, there are also risks and opportunities for improvement. Firstly, in 2023, we reported a bad debt write-off due to the insolvency of Minto Metals Corporation ("Minto"). This non-recurring expense relates to unpaid amounts owed to the Company for services rendered in 2023. When BQE entered into a contract with Minto in 2022, management weighed the risk of the customer's low working capital against the opportunity to provide services to a mine with significant water treatment requirements. When Minto entered receivership in May 2023, it was our presence on site that allowed us to secure a new and expanded contract directly with the Government of Yukon. Overall, this new contract more than compensated for BQE's bad debt write-off. It also provided the Company with the opportunity to gain recognition from the Government of Yukon, positioning us well for potential future projects administered by the government in the province. The bulk of the Company's operational services are, and will continue to be, provided to mid-tier and top-tier metal producers; however, working with junior mining companies is part of our business. As such, we will continue to carefully weigh the pros and cons of every contract we enter with a view to minimizing the risk of incurring bad debt expenses without adequate offsets.

In 2023, BQE Water also reported an unusually low share of income from our joint venture with JCC in China due primarily to lower sales of recovered copper relative to prior years. While the mass of copper recovered is expected to decline over time due resource depletion in the waste rock piles that the copper containing wastewater comes from, the waste rock piles still contain a significant quantity of copper and, in management's opinion, the drop in copper production in 2023 will not necessarily be reflective of copper recoveries in future years. The release of copper from waste rock is driven by climatic conditions such as temperature, humidity, and frequency and duration of rain events. Overall, investors should expect volatility in the mass of copper recovered from the JV operations in future years. Fluctuations in the price of copper is and will be another major determinant for our net income from joint ventures in the future. As noted above, the impact from metals sales to the Company's overall financial results has and will continue to decrease as our recurring revenue from water treatment plant operations continues to grow over the medium and long term.

Lastly, sales & development expenses and general & administration expenses together increased 27% in 2023. While some of these expenses are expected to increase due to the Company's growth, we have identified multiple opportunities to improve efficiency across the organization with respect to workflow, communication, and resource allocation. Executing these opportunities will be management's focus in 2024. Investors can nevertheless expect higher costs resulting from more proactive business development, marketing and investor relations activities, as well as increases in insurance costs and financial audit expenses. Overall, however, we believe our operating and profit margins can continue to improve year-over-year due to active management of costs, internal efficiencies, and economies of scale. In terms of labor resources, our focus will be on improving the utilization of existing resources prior to embarking on any further hiring initiatives. The figure below shows the evolution of our team from 2017 to 2023, including our projections for 2024, which highlights our focus in 2024 on the consolidation of the rapid growth of the past two years.



With respect to our outlook for 2024, we have relatively good visibility and certainty over key projects and activities. For operational services, we expect our recurring revenues will continue to increase. In 2024, we will have the first full year of operations at the newest selenium removal plant commissioned in Q3 2023. We also anticipate new contracts for operational services in 2024 with North American customers who complete the construction of new plants in 2024 and begin the transition to the operations phase in the second half of 2024 or early 2025. This momentum will be supported by the expected commissioning of our third SART plant in China that is expected to transition into operations in the first half of 2025, providing a similar revenue stream as the first two SART plants. It is important to note that the size and scope of operational services contracts vary, and will continue to vary, based on site specific requirements. For technical and advisory services, we anticipate the start of construction of one new North American treatment facility in 2024 that BQE designed and helped with permitting in previous years. Our outlook for 2024 as described above does not include certain potential "major projects" because the timing of these projects is not sufficiently certain to include at this time.

In the long-term, the drivers for continued growth remain firmly in place and include:

- Tightening government regulations and increased enforcement around water quality.
- Social acceptability of new mines creating a major driver for water management and treatment decisions.
- Global decarbonization driving demand for metals production.
- Outsourcing of innovation in the mine water space combined with our track record of bringing innovation to market.
- Increased role of Indigenous communities in clean water production and environmental monitoring.
- Clean-up and closure of ash ponds as one of the largest environmental liabilities faced by power utilities.

Despite these trends and our optimistic outlook for 2024, we continue to caution readers about the risks that may create sudden and potentially significant headwinds for us and our business. These include geopolitical risks with China, weak inflows of capital into the mining sector, a global recession, and/or prolonged weakness in commodity prices. For these reasons, we remain focused on fiscal prudence and maintaining our working capital at a level that allows us to withstand exogenous impacts. Our financial results in 2023 and the current outlook for 2024 support our view that we remain on track for profitable growth and have sufficient cash reserves to mitigate key risks.

# **SELECTED FINANCIAL INFORMATION**

(in \$'000 except for per share amounts)	2023	2022
	\$	\$
Revenues	18,137	12,158
Operating expenses	(9,075)	(7,107)
Operating margin	9,062	5,051
Share of income from joint ventures	419	1,487
General and administration	(2,727)	(2,464)
Sales and development	(2,655)	(1,768)
Share-based payments	(466)	(671)
Depreciation and amortization	(430)	(264)
Income from operations and joint ventures	3,203	1,371
Other income, net	115	108
Bad debt expense	(473)	(8)
Income tax expenses	(191)	(309)
Net income for the year	2,654	1,162
Earnings per share (basic)	2.12	0.93
Earnings per share (diluted)	2.08	0.92
Proportional Revenues (Non-GAAP measures)	22,726	18,879
Adjusted EBITDA (Non-GAAP measures)	4,656	3,059
Comprehensive income	2,302	994
	at Dec 31	at Dec 31
	2023	2022
	\$	\$
Cash and cash equivalents	7,928	6,234
Proportional cash (Non-GAAP measures)	9,790	9,582
Working capital	10,529	7,165
Total assets	18,856	15,988
Total non-current liabilities	1,900	555
Shareholders' equity	14,776	12,638

# **COMPARISON OF QUARTERS**

Financial data for the last eight quarters:

(in \$'000s)	Dec-23	Sept-23	Jun-23	Mar-23	Dec-22	Sept-22	Jun-22	Mar-22
	\$	\$	\$	\$	\$	\$	\$	\$
Revenues	5,014	6,246	4,186	2,691	3,465	3,503	2,722	2,467
Operating expenses	(2,260)	(2,959)	(2,162)	(1,694)	(2,044)	(1,759)	(1,773)	(1,531)
	2,754	3,287	2,024	997	1,421	1,744	949	936
Share of results from	(452)	202	407	04	(25.6)	204	4.420	222
joint ventures	(452)	382	407	81	(256)	281	1,129	333
General and administration	(695)	(610)	(750)	(672)	(690)	(591)	(579)	(604)
Sales and development	(930)	(555)	(557)	(613)	(564)	(414)	(436)	(354)
Share-based payments	(138)	(109)	(29)	(190)	(209)	(172)	(267)	(23)
Depreciation and amortization	(126)	(111)	(111)	(82)	(80)	(70)	(59)	(55)
Income (loss) from operations	413	2,284	984	(479)	(378)	778	737	233
Other income (expenses), net	68	(13)	(83)	143	142	84	(77)	(41)
Bad debt expense	(214)	-	(259)		(8)	-	-	-
Income tax expense	(18)	(140)	(27)	(6)	-	(289)	(18)	(2)
Net income (loss)	249	2,131	615	(342)	(244)	573	642	190
T 1 1 1 1 1 1 1 1	20	74	(474)	40	00		(420)	(400)
Translation gain (loss)	39	71	(471)	10	80	-	(139)	(109)
Comprehensive income (loss)	288	2,202	144	(332)	(164)	573	503	81
Non-GAAP Measures:								
Proportional Revenue	5,431	7,964	5,772	3,560	4,479	5,707	5,164	3,529
Adjusted EBITDA	541	2,742	1,451	(80)	(90)	1,361	1,341	446
Aujusteu Ebilba	371	2,172	1,751	(00)	(50)	1,301	1,541	440

Quarterly results can fluctuate based on the number of plants operating, variations in the volume and grade of water treated, and movements in commodity prices. Seasonality at each site also impacts the timing of revenues. Operations at Raglan Mine and Minto Mine run in the warmer months, typically from May to October of each year. Copper production at the Dexing operations increase between April and September and decline during the winter months due to lower seasonal precipitation and the annual maintenance schedule. Revenues from contracts for technical services related to water management and technical innovation projects occur based on the timing of client requirements.

# **SUMMARY OF Q4 2023 FINANCIAL RESULTS**

The following is a summary of selected financial results for the three-month periods ended December 31, 2023 and 2022.

# **Proportional Revenues**

The change in Proportional Revenues from each revenue source is shown in the table below:

(in \$'000s)	Q4 2023		Q4 2022		
Revenue source	\$	% of total	\$	% of total	% Change
Sale of recovered metals from operations	417	8%	1,014	22%	(59%)
Water treatment fees from operations	2,843	52%	1,326	30%	114%
Technical services	2,171	40%	2,139	48%	1%
Total Proportional Revenues	5,431	100%	4,479	100%	21%

Revenues from the sale of recovered metals of value comprise the Company's share of joint venture revenue from the operation of water treatment plants. The amount of revenue is impacted by the quantity of metals recovered and the metal prices listed on the Shanghai Futures Exchange. During Q4 2023, the JCC-BQE joint venture contributed \$416,000 to the Company's share of Proportional Revenue compared to \$727,000 in Q4 2022. The 43% decrease in revenue against 2022 was due to an approximate 44% decrease in the quantity of copper recovered. During Q4 2023, the MWT-BQE joint venture was operating intermittently and contributed \$1,000 to the Company's share of Proportional Revenue compared to \$287,000 in Q4 2022. The decrease was due to a substantial one-time sale of copper and zinc in the fourth quarter of 2022.

The Company earns water treatment fee revenues, including monthly fees and tolling fees from the volume of water treated and operations support fees, at four different sites including Raglan Mine in Nunavik through our partnership with Inuit company Nuvumiut Development, at Minto Mine in the Yukon, and at the three selenium removal plants in the US. The \$1.5 million increase in water treatment fees is due to several operations. During Q4 2023, the third newly commissioned selenium removal treatment plant was fully operational, and all three US plants in aggregate provided \$1.7 million of recurring revenues compared to \$475,000 in Q4 2022. Through our operations at Raglan Mine, we earned \$629,000 water treatment fees compared to \$356,000 in Q4 2022, as the volume of water treated increased by 100% between the two periods. Our operation support fees are comprised of recurring technical support services at two SART plants in China that generated revenues of \$178,000 in Q4 2023 compared to \$150,000 in Q4 2022.

Technical services revenues were comparable to the same period in 2022. These revenues are non-recurring in nature and are related to water management services such as treatability assessments, permitting assistance, engineering and plant design, construction and commissioning of water treatment plants, laboratory testing and pilot demonstrations. These revenues represent the sum of multiple contracts from various clients of varying contract values.

# **Expenses**

Total operating expenses in Q4 2023 were \$2.3 million compared to \$2.0 million in Q4 2022, an increase of 11%, which is consistent with the increase in operations and project activity during the quarter. Each individual project requires different levels of technical expertise and resources depending on the specific mine conditions and treatment solutions.

In Q4 2023, general and administration costs were \$695,000 compared to \$690,000 in Q4 2022. The \$5,000 increase was due to increases in employee benefits, professional services, and insurance premiums, offset by decreases in travel expenses.

Sales and development costs in Q4 2023 were \$930,000 compared to \$564,000 in Q4 2022, representing an increase of \$366,000. The increase was largely attributable to a \$281,000 increase in labor resources allocated to fulfill technological and business development incentives, a \$37,000 increase in travel and event expenses related to business development, and a \$18,000 increase in professional services.

# **SUMMARY OF 2022 FINANCIAL RESULTS**

The following is a summary of selected financial results for the years ending December 31, 2023 and 2022.

# **Proportional Revenues**

The change in Proportional Revenues from each revenue source is shown in the table below:

(in \$'000s)	2023		2022		
Revenue source	\$	% of total	\$	% of total	% Change
Sale of recovered metals from operations	4,589	20%	6,721	36%	(32%)
Water treatment fee from operations	8,278	36%	4,133	21%	100%
Technical services	9,859	44%	8,025	43%	23%
Total Proportional Revenues	22,726	100%	18,879	100%	20%

Revenues from the sale of base metals recovered comprises the Company's share of revenues from joint ventures in China. The sale of copper and zinc recovered during the operation of water treatment plants is impacted by the amount and market price of metal concentrates sold. During 2023, our share of revenues from the JCC-BQE joint venture was \$4.4 million compared to \$6.2 million in 2022, representing a \$1.8 million or 30% decrease. The decrease is predominately due to the 32% decrease in the total pounds of copper recovered, offset by a 2% increase in average copper prices. The decrease is largely due to the lower concentration of metals from the depreciated stockpile. The remaining variance was from the MWT-BQE joint venture, which contributed copper and zinc recovery sales of \$212,000 to the Company's Proportional Revenue in 2023 compared to \$480,000 in 2022. The variance is due to the change in concentration of metals contained in the feed going into the treatment plant and the amount sold within the year.

Water treatment fee revenues increased by \$4.1 million or 100% compared to 2022, mainly due to the start of new operations in 2023. The recently commissioned third selenium removal plant in the US contributed new recurring revenues of \$2.2 million and the full year of operations at Minto Mine added an additional \$1.3 million to operation revenues in 2023 over 2022. Treatment fees from the Raglan operations provided \$1.9 million in revenues in 2023 compared to \$1.6 million in 2022, an increase of 18% year-over-year due to more water requiring treatment across the four plants from the year prior. In 2023, we continued to earn support fees in our SART plants in China totalling \$719,000 compared to \$546,000 from the prior year.

Revenues from technical services increased by \$1.8 million or 23% in 2023 compared to 2022. The increase is attributed to higher project activity in all areas of technical services, including commissioning activities in the US, engineering design of new water treatment plants, and the pilot demonstration project in South Dakota. These revenues are non-recurring in nature and relate to water management services such as treatability assessments, permitting assistance, engineering and plant design, construction and commissioning of water treatment plants, laboratory testing and pilot demonstrations. Such revenues represent the sum of multiple contracts from various clients of varying contract values.

# **Operating Expenses**

Total operating expenses in 2023 were \$9.1 million compared to \$7.1 million in 2022, an increase of \$2.0 million. The 28% increase in operating expenses is largely attributable to the aggregate 49% increase in operations services and project activity related to technical services completed in the year. Each operation site and individual project calls for varying levels of technical expertise and resources depending on the specific mine conditions and treatment needs. During 2023, gross margin improved to 50% compared to 42% in 2022.

#### **Expenses**

General and administration expenses in 2023 were \$2.7 million compared to \$2.5 million in 2022, representing a \$263,000 or 11% increase. The increase was attributable to a \$184,000 increase in employee benefits, and a \$71,000 increase in insurance premiums for the year.

Sales and development costs in 2023 were \$2.7 million compared \$1.8 million in 2022, an increase of 50%. The \$887,000 increase was largely attributed to a \$678,000 increase in employee benefits, a \$104,000 increase in travel expenses related to business development, and a \$87,000 increase in other expenses directly related to technology development.

Share-based payment expenses were \$466,000 in 2023 compared to \$671,000 in 2022, a decrease of \$205,000. Share-based payment expenses mainly consist of non-cash compensation expenses relating to stock options which are expensed on a straight-line basis over the vesting period. Other share-based payment expenses were due to fair value adjustments of deferred and restricted share units resulting from an increase in the Company share price.

Depreciation and amortization expenses were \$430,000 in 2023 compared to \$264,000 in 2022. The increase of \$166,000 was due to several newly added right-of-use assets, including an office building lease valued at \$1.4 million depreciating over 10 years, other office leases and several vehicle leases.

# Other Income and Expenses

The net of other income was \$115,000 in 2023 compared to an income of \$108,000 in 2022. Other income consists of net finance income, foreign exchange and other income.

Net finance income was \$204,000 in 2023 compared to an expense of \$27,000 in 2022. Finance income consists of interest income earned primarily from on-demand guaranteed investment certificates and is netted against finance costs, which consist of interest paid and interest accrued for other liabilities. The increase was primarily due to \$156,000 of interest income from the initial fair value gain on the interest-free government loans received in 2023.

Foreign exchange loss was \$141,000 in 2023 compared to a gain of \$48,000 in 2022. These exchange gains and losses arise mainly from changes in the value of the US dollar, Mexican peso, Chilean peso and Chinese renminbi relative to the Company's reporting currency of Canadian dollars.

The remaining variance is from other income of \$52,000 in 2023 compared to \$33,000 in 2022. Other income consists of fair value adjustments on contingent liabilities, and other gains and fees earned which are non-operating in nature.

During 2023, the Company recorded bad debt expenses of \$473,000 compared to \$8,000 in 2022. Included in bad debt expenses in 2023 was \$424,000 due to non-payment from a Yukon-based customer in receivership and \$47,000 due to accounts receivable impairment from a customer in China. In May 2023, the Yukon-based customer ceased their operations at the mine site and the Government of Yukon later appointed a receiver for certain mining assets at site. The Company assessed the event as an indicator of impairment and recorded the trade receivable from this customer as a bad debt expense.

# **Income Tax**

In 2023, income tax expenses were \$191,000 compared to \$309,000 in the prior year. The income tax charges in both years consist of a 10% withholding tax in China for the distributions made by the JCC-BQE joint venture and by the Company's wholly owned Chinese operating subsidiary. The distributions and withholding tax recognized are based on the net earnings of the prior year. These taxes are not able to be offset against accumulated tax benefits in other jurisdictions.

#### **Net Income**

Overall, net income for the year was \$2.6 million compared to \$1.2 million in 2022.

# **SUMMARY OF OPERATIONAL SERVICES**

# JCC-BQE Joint Venture Operation, Jiangxi Province, China

In 2007, BQE Water entered into a 50/50 joint venture arrangement with JCC, China's largest copper producer. In April 2008, the joint venture completed the construction and commissioning of its first water treatment plant at JCC's Dexing Mine, an active copper mine in China. The plant utilizes our patented ChemSulphide® process to remove and recover dissolved copper from acid mine drainage generated by waste dumps and low-grade stockpiles. The recovered high-grade copper concentrate is shipped to JCC's refinery. In 2014, the joint venture completed the construction and commissioning of two additional water treatment plants at JCC's Yinshan Mine and Dexing Mine sites. Both plants also utilize the ChemSulphide® process.

All three water treatment plants were designed by BQE Water and are operated by the joint venture. The plants are managed jointly whereby BQE Water is responsible for technical operations and JCC is responsible for local administrative, procurement and government activities. The joint venture partners share 50% of the revenues and costs. Revenues are generated through the sale of recovered copper from the plants based on the metal price during the day when the concentrate is shipped, less refining costs.

Operating results for all three plants during the year were as follows:

(in '000s)	2023	2022
Dexing 1		
Water treated (cubic metres)	7,057	8,051
Copper produced (pounds)	720	1,298
Dexing 2		
Water treated (cubic metres)	8,206	5,666
Copper produced (pounds)	677	911
Yinshan		
Water treated (cubic metres)	4,230	3,987
Copper produced (pounds)	538	620
Total		
Water treated (cubic metres)	19,493	17,704
Copper produced (pounds)	1,935	2,829

The volume of water treated will fluctuate depending on precipitation levels and pounds of copper recovered at all three plants is driven by climatic conditions such as temperature, humidity, and frequency and duration of rain events. Over time, the mass of copper recovered is expected to decline over time due resource depletion in the waste rock piles that the copper containing wastewater comes from. The two plants, Dexing 1 and Dexing 2, treat water from the same source and water may be diverted from one plant to the other to optimize operations.

During 2023, all three plants met or exceeded mechanical availability and process performance. Changes in water volume and feed grade are largely the result of environmental conditions beyond the control of the joint venture and will vary from period to period.

# MWT-BQE Joint Venture Operation, Shandong Province, China

In 2016, BQE Water entered into a joint venture agreement with MWT for the design, construction and operation of a treatment plant that recovers copper and zinc from wastewater generated by the Guoda gold smelter and refinery owned by Zhaoyuan Gold Smelting Co., Ltd ("Zhaoye"). BQE Water provides its technology and plant operating experience in exchange for an ongoing 20% share of the profit from metals recovered and technical support fees. Copper concentrate produced by the plant is sold back to Zhaoye and the zinc concentrate is sold to local metal traders.

Operating results for the plant during the year were as follows:

(in '000s)	2023	2022
Water treated (cubic metres)	285	690
Zinc recovered (pounds)	162	527
Copper recovered (pounds)	49	218

# Raglan Mine Operation for Glencore Canada Corporation, Québec, Canada

BQE Water operates four water treatment plants at Raglan Mine, an active nickel mine in Northern Québec which is owned by Glencore. The four plants include: BQE Water's ChemSulphide® process plant, BQE Water's Met-IX™ process plant, the lime neutralization plant at Spoon pit and the lime plant at Katinniq. All four plants discharge treated water into the environment. The ChemSulphide® and Met-IX™ plants also recover nickel from wastewater which is blended into the nickel concentrate produced by the mine. Because of the harsh winter conditions in Northern Québec, water is not available for processing until the spring thaw; the plant runs seasonally, typically from late spring to fall. BQE Water is responsible for all aspects of plant operations and receives a treatment fee per cubic metre of water treated and discharged.

The volume of water treated for the four plants during the year were as follows:

(in '000s cubic metres)	2023	2022
ChemSulphide® and Met-IX™ plants	901	993
Spoon plant	457	392
Katinniq plant	860	485
Total	2,218	1,870

# Minto Mine Operation for Yukon Government, Yukon, Canada

In 2022, BQE Water entered into an operational services agreement with Minto Metals to operate an existing water treatment plant at Minto Mine. As part of the operational services, BQE Water provides operations labor and coordination of mechanical and electrical maintenance to ensure effluent from the water treatment plant meets the specific discharge limits set within the permit parameters. In May 2023, the Yukon-based customer ceased active operations at the mine and the Government of Yukon stepped in to ensure the continuation of water management services in support of environmental protection. Throughout this transition, our operators continued onsite to operate the water treatment plant and provided continuous water treatment until plant winterization in October 2023.

Operating results for the plant during the year were as follows:

	2023	2022
Operating days	312	127
Water treated (in '000s cubic metres)	938	378

# Kemess Property Operation for Centerra Gold, British Columbia, Canada

In 2020, we completed the commissioning of the first industrial scale plant utilizing our patented Selen-IX™ process for selenium management at the Kemess property in Northern BC owned by Centerra Gold. Upon commissioning, the plant operated continuously for a month treating up to 5,600 m³/day of mine impacted water to produce clean water containing selenium concentrations of less than 2 parts per billion. In December 2020, the Kemess site was declared to be in a state of care and maintenance. With the site requiring active water treatment only during mine construction, operation and closure but not during care and maintenance, the water treatment plant is not expected to operate until the site status changes. During 2023, we completed annual maintenance activities required to maintain the water treatment plant during this state.

# China Metallurgical Facilities Operations for MWT Water Treatment Ltd., Shandong Province, China

In 2021, BQE Water completed the commissioning of two SART plants at two metallurgical facilities located in Eastern China, owned by Shandong Zhongkuang Group Co., Ltd. ("Zhongkuang") and Zhaojin Mining Industry Co., Ltd. ("Zhaojin"). The Zhongkuang SART plant began operations in January 2021 and the Zhaojin SART plant in April 2021. Both SART plants are operated under the ongoing technical supervision of BQE Water. During operations, the SART plants are expected to recover cyanide, copper and zinc. Recovered cyanide will be re-used within the metallurgical process and the copper and zinc will be sold to generate incremental revenues for each owner.

The volume of water treated for the two plants during the year were as follows:

(in '000s cubic metres)	2023	2022
Zhongkuang SART plant	178	147
Zhaojin SART plant	424	264

# Ash Pond Clean-up Operations for WesTech Engineering, Virginia, USA

At the end of 2021, BQE Water completed the commissioning of our first project in the power generation industry, a treatment plant utilizing our Selen-IX™ process to remove selenium from ash pond water for WesTech. The Selen-IX™ plant has a treatment capacity of 1,500 US gallons per minute and is designed to remove selenium down to below 7.7 parts per billion. BQE Water operates the Selen-IX™ plant under contract to WesTech who manages overall site operations. During 2023, our team was onsite providing water treatment services and utilizing the Selen-IX™ circuit, when selenium is present to remove selenium.

# Base Metal Mine in Southwestern, USA

In 2022, BQE Water completed the commissioning of a treatment plant utilizing a combination of nanofiltration and our proprietary selenium electro-reduction process to simultaneously remove selenium and sulphate from mine water for a base metal project in the American Southwest. Upon completion of commissioning, we began providing ongoing plant operations services in exchange for water treatment fees comprised of a fixed guaranteed minimum and a variable fee linked to the volume of water treated. In 2023, our operations team operated the plant for the full year.

In August 2023, BQE Water completed the commissioning of a second water treatment plant for the same base metal mine. Since being operational, the treatment plant treats mine impacted waters, removing selenium to below 2 ppb (Parts Per Billion) and dissolved metals, in compliance with applicable effluent quality regulations. Compensation for operations services consists of a base monthly fee, regardless of the volume of water reporting to treatment, plus a supplemental fee for additional water treated over and above the base. The plant has been operating year-round 24/7, with an overall plant availability more than 95%, and treat up to 4,500 gallons of water per minute, making it the largest Selen-IX™ plant currently in operation.

# LIQUIDITY AND CAPITAL RESOURCES

At December 31, 2023, BQE Water had 1,246,628 common shares issued (1,256,928 at December 31, 2022) and 84,340 stock options outstanding (90,340 at December 31, 2022).

In 2022, the Company obtained the approval of the TSX Venture Exchange to commence a Normal Course Issuer Bid (NCIB) to repurchase for cancellation up to 62,556 common shares, representing 5% of common shares issued and outstanding, over a 12-month period starting December 12, 2022. The NCIB was renewed for another 12-monther period starting December 13, 2023. For the year ended December 31, 2023, the Company has repurchased for cancellation 13,300 common shares at a weighted average price per share of \$28.40 under the terms of the NCIB (nil as of Dec 31, 2022).

Subsequent to the reporting year, as of the date of this MD&A on April 25, 2024, there were 1,256,228 common shares issued and outstanding, and 74,740 stock options outstanding, and no common shares have been purchased and cancelled under the NCIB.

At December 31, 2023, we had net cash and cash equivalents of \$7.9 million, an increase of approximately \$1.8 million from December 31, 2022. For the 12 months ended December 31, 2023, our net cash provided by operating activities was \$870,000 (\$364,000 used in 2022).

Working capital is defined as current assets minus current liabilities. At December 31, 2023, the Company had a consolidated working capital position of \$10.5 million, an increase of \$3.4 million from December 31, 2022. At December 31, 2023, significant working capital items, aside from cash, include trade and other receivables of \$4.4 million (\$3.2 million at December 31, 2022) and trade payables and accrued liabilities of \$1.3 million (\$1.2 million at December 31, 2022).

The Company has interest-free loans with the Minister of Western Economic Diversification Canada under the Western Innovation Initiative ("WINN") program and with Pacific Economic Development Canada under the Business Scale-Up & Productivity Program ("BSP"). At December 31, 2023, the WINN and BSP loan balance was \$312,000, both with obligations to repay the loan with 60 equal monthly installments (\$268,000 at December 31, 2022). Additionally, there are credit facilities available with the Royal Bank of Canada including a credit card facility of \$30,000 and a revolving demand credit facility of \$1.0 million which had not been utilized as at December 31, 2023.

The Company has commitments of \$2.2 million until 2034 under operating leases for office and laboratory premises, and assay services.

We believe we have sufficient working capital resources to finance current operations beyond the next 12 months.

# **RELATED PARTY TRANSACTIONS**

# **Management Compensation**

For the years ended December 31, 2023 and 2022, the compensation awarded to the Company's key management, which includes the Board of Directors and executive management, are as follows:

	2023	2022
	\$	\$
Salaries, fees and short-term benefits	865,362	786,908
Share-based payments	150,250	223,842
	1,015,612	1,010,750

# **Revenue Earned from Joint Venture**

The Company earns operating fees from the joint venture, BQE Water Nuvumiut Development Inc., for providing water treatment services in Nunavik. Revenue earned from the joint venture for the year ended December 31, 2023 was \$2,200,877 (\$1,722,390 in 2022). Included in trade and other receivables as of December 31, 2023 is \$382,837 (\$154,611 at December 31, 2022) of trade receivables due from the joint venture.

# CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

The preparation of the Company's consolidated financial statements in conformity with IFRS requires the Company's management to make judgments, estimates and assumptions about future events that affect the amounts reported in the consolidated financial statements and related notes to the consolidated financial statements. The estimates and associated assumptions are based on historical experience and other factors considered to be relevant. Actual results may differ from these estimates.

Estimates and assumptions are continually evaluated and are based on management's experience and other facts and circumstances. Revisions to estimates and the resulting effects on the carrying amounts of the Company's assets and liabilities are accounted for prospectively.

The areas which require management to make significant judgments, estimates and assumptions in determining carrying values include, but are not limited to:

# **Critical Judgments**

Critical judgments that management has made in the process of applying the Company's accounting policies and that have the most significant effect on the amounts recognized in the consolidated financial statement are:

- a) Management's assessment of the Company's ability to continue as a going concern, as the consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities in the normal course of business.
- b) Management's judgment on revenue recognition, when determining the performance obligations that exist in an arrangement and the timing of the transfer of control and satisfaction of performance obligations of either at a point in time or over time.
- c) Management' assessment of the intellectual property transaction in the previous year as an intangible asset acquisition and not a business combination arrangement.
- d) Management' assessment of impairment indicators for asset impairment on long-term assets such as property and equipment or investment in joint ventures.

# **Key Sources of Estimation Uncertainty and Assumptions**

The following are key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the reported amounts of assets and liabilities, income and expenses within the next fiscal year.

# Revenue Recognition

Revenue for technical services relating to water management are recognized using the project stage of completion method, which requires judgment for estimating project inputs and costs for completion and making assumptions for scope changes. Depending on the services provided and on the contract terms, many variables are used in assessing the revenues earned based on the project stage of completion at the reporting date. For the revenue arrangements comprise multiple performance obligations, estimates are required when determining the relative fair value of each performance obligation utilizing standalone prices for similar deliverables where it exists or internally generated estimates of standalone price.

# **Expected Credit Loss**

Trade and other receivables are assessed for impairment at each reporting date by applying the expected credit loss impairment model. Expected credit loss represents management's best estimate and assumptions based on actual credit loss experience and informed credit assessment, and also takes into consideration forward-looking information. If actual credit losses differ from estimates, future earnings would be affected.

# Right-of-Use Assets & Lease Obligations

To determine the value of the initial recognition and subsequent re-measurement of RoU assets and lease obligations, management is required to exercise judgment in several areas. Management has reviewed its lease agreements to estimate the lease term by evaluating the probability of exercising its option to extend or renew its lease contracts. Further judgment

is required to determine the discount rate on lease payments by assessing its incremental borrowing rate at each of the Company's locations.

# Long-term Loans

To determine the carrying value of the initial recognition and subsequent re-measurement of long-term interest-free loans provided by the government, management is required to exercise judgment in determining the effective interest rate on expected loan repayments over the term of the loan.

#### **GENERAL**

# Disclosure Controls and Procedures and Internal Control over Financial Reporting

The Company's management, including the Chief Executive Officer and Chief Financial Officer, believe that any disclosure controls and procedures or internal controls over financial reporting, no matter how well conceived and operated, can provide only reasonable and not absolute assurance that the objectives of the control system are met. Further, the design of a control system reflects the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, they cannot provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been prevented or detected.

The Company's management has evaluated the design and effectiveness of our disclosure controls and procedures. Based upon the results of that evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of period covered by this report, our disclosure controls and procedures were effective to provide reasonable assurance that the information required to be disclosed in the reports it files are recorded, processed, summarized and reported within the appropriate time periods and forms.

The Company's management has also evaluated the design and operating effectiveness of the Company's internal controls over financial reporting as of the end of the period covered by this report. The risk of a significant error is mitigated by the active involvement of senior management and the oversight of the Board of Directors in all affairs of the Company; open lines of communication within the Company; the present levels of activities and transactions within the Company being readily transparent; and the thorough review of the Company's consolidated financial statements by management and the Board of Directors. Based on the result of the assessment, the Company's Chief Executive Officer and Chief Financial Officer have concluded that the Company's internal controls over financial reporting have been adequately designed. During the current year, management implemented a formal testing program on the operating effectiveness of its controls and concluded that they are also effective.

There has been no change in BQE Water's internal controls over financial reporting during the year ended December 31, 2023 that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

# **Future Accounting Standards and Amendments**

There are a number of accounting standard amendments issued by the IASB which we have not yet adopted. None of the future amendments are expected to have a significant impact on the Company's consolidated financial statements on adoption.

# **RISKS AND UNCERTAINTIES**

Companies operating in the process technology sector face many and varied risks. While we strive to manage such risks to the extent possible and practical, risk management cannot eliminate risk completely. Following are the risk factors which management believes are most important in the context of the Company's business. It should be noted that this list may not be exhaustive and other risks may apply. An investment in the Company may not be suitable for all investors.

#### **Dependence on Key Personnel**

The Company is substantially dependent upon a number of key management, technical, project and business development personnel. The loss of any one or more key employees or consultants could have an adverse material effect on our

business. Additionally, the Company's ability to develop, manufacture and market its services and compete with current and future competitors depends, in large part, on its ability to attract and retain qualified personnel. Competition for qualified personnel may prove to be intense and it may have to compete for personnel with companies that have substantially greater financial and other resources than it does. Failure to attract and retain qualified personnel could have an adverse material effect on the Company's business operating results and financial condition.

# **Maintaining Safety and Protecting the Environment**

Despite the Company's efforts to minimize the risk of safety and environmental incidents, they can occur from time to time and, if and when they do, the impact on the Company can be significant. Our success in the water management and treatment space is highly dependent on our ability to keep project and work sites safe and any failure to do so can have serious impact on the personal safety of our employees and others. In addition, it can expose the Company to contract termination, fines, regulatory sanctions or even criminal prosecution.

Our safety record and operational safety practices also have a direct bearing on our ability to secure new project work. Certain clients will not engage contractors or consultants to perform work if their safety practices do not conform to predetermined standards or if they have an unacceptably high incidence of safety infractions or incidents.

We adhere to very rigorous safety policies and procedures which are continually reinforced on project and work sites. Management is not aware of any pending health and safety legislation or prior incidents which would be likely to have a material impact on any of our operations or competitive position.

# **Management of Growth**

The Company's current growth trajectory could put a significant strain on each of the Company's managerial, operational and financial resources. The Company must implement and constantly improve its operational and financial systems and expand, train and manage its employee base to manage growth. As the Company establishes additional water treatment facilities and streams of recurring revenue, it would create additional operational and management complexities. In addition, the Company expects that its operational and management systems will face increased strain as a result of the expansion of the Company's technologies and services. The Company might not be able to effectively manage the expansion of its operations and systems, and its procedures and controls might not be adequate to support its operations. In addition, management might not be able to make and execute decisions rapidly enough to exploit market opportunities for the expansion of the Company's technologies and services. If the Company is unable to manage its growth effectively, its business, results of operations and financial condition could suffer.

# **Economic and Project Site Dependence**

The Company currently derives its revenues from a limited number of sources (contracts). For certain contracts, we have made significant investments in fixed plants that are dependent on conditions at the project site that may be beyond our control. Changes in site conditions and/or the loss of any one contract could result in a materially adverse effect to our financial condition.

# **Commodity Prices**

For the Company's joint venture operations, it generates revenues by selling recovered metals of value from treated water. These recovered metals face commodity price risks and thus their prices may vary based on world supply and demand. There can be no assurance that the prices of these metals will maintain at current buying rates.

# Competition

The Company is aware of and does address existing competitors for water treatment opportunities. There is a possibility that other companies will enter these markets and compete with the Company. Such competitors could possess greater financial resources and technical facilities. Increased competition could result in significant price competition, reduced profit margins or loss of market share. The Company believes it's technologies for water treatment solutions is far beyond the capabilities of others available in the market, but the Company may not be able to compete successfully with future competitors and cannot ensure that competitive pressures will not materially and adversely affect its business, operating results and financial condition.

# **Credit Risk**

The Company's credit risk is primarily associated with trade and other receivables, however, it also arises on cash. The Company invests its cash with counterparties that it believes are of high credit quality as assessed by reputable rating agencies. To manage credit risk on trade and other receivables, the Company transacts with customers with strong credit ratings with ongoing credit evaluation and account monitoring procedures. Even such, the credit risk associated with trade receivables with aging balances over 90 days are considered higher than normal.

# **Technology Risk**

The Company has completed the construction and commissioning of a number of plants. The operating and engineering data from these plants is used in estimates for new projects under evaluation and/or in the design engineering stage. Notwithstanding the foregoing, each new commercial venture undertaken by the Company has the inherent technical risk of any continuous biological and/or chemical process, which could include the loss of the biological feedstock.

# **Intellectual Property Protection**

The Company cannot provide any assurance that any further intellectual property applications will be approved. Even if they are approved, such patents, trademarks or other intellectual property registrations may be successfully challenged by others or invalidated. The success of the Company and its ability to compete are substantially dependent on its internally developed technologies and processes which the Company will need to protect through a combination of patent, copyright, trade secret and trademark law.

The trademark, copyright and trade secret positions of the Company's business are uncertain and involve complex and evolving legal and factual questions. In addition, there can be no assurance that competitors will not seek to apply for and obtain trademarks and trade names that will prevent, limit or interfere with the Company's BioSulphide®, ChemSulphide®, Met-IX™, Sulf-IX™ and Selen-IX™ processes. Litigation or regulatory proceedings, which could result in substantial cost and uncertainty to the Company, may also be necessary to enforce the intellectual property rights of the Company or to determine the scope and validity of other parties' proprietary rights. There can be no assurance that the Company will have the financial resources to defend its patents, trademarks and copyrights from infringement or claims of invalidity.

The patent positions of emerging companies can be highly uncertain and involve complex legal and factual questions. Thus, there can be no assurance that any patent applications made by or on behalf of the Company will result in the issuance of patents, that the Company will develop additional proprietary products that are patentable, that any patents issued or licensed to the Company will provide the Company with any competitive advantages or will not be challenged by any third parties, that the patents of others will not impede the ability of the Company to do business or that third parties will not be able to circumvent the patents assigned or licensed to the Company. Furthermore, there can be no assurance that others will not independently develop similar products, duplicate any of the Company's products or, if patents are issued and licensed to the Company, design around the patented product developed for the benefit of the Company.

Since patent applications are maintained in secrecy for a period of time after filing, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, the Company cannot be certain that the inventors of the patents were the first creators of inventions covered by pending applications, or that it was the first to file patent applications for such inventions. There can be no assurance that the Company's patents, if issued, would be valid or enforceable by a court or that a competitor's technology or product would be found to infringe such patents.

The Company is not currently aware of any claims asserted by third parties that the Company's intellectual property infringes on their intellectual property. However, in the future, a third party may assert a claim that the Company infringes on their intellectual property. If the Company is forced to defend against these claims, which may be with or without any merit or whether they are resolved in favour or against the Company, the Company may face costly litigation and diversion of management's attention and resources. As a result of such a dispute, the Company may have to develop costly non-infringement technology or enter into license agreements which may not be available at favourable terms.

# **Currency Risk**

The Company conducts significant business in Canada, the United States, Mexico, Chile and China. As a result, the Company has foreign currency exposure with respect to items not denominated in Canadian dollars. The Company's joint venture operations sell and incur costs mainly in Chinese renminbi. This creates exposure at the operational level, which may affect

the Company's profitability as exchange rates fluctuate. The Company has not hedged its exposure to currency fluctuations. The Company is also exposed to currency risk through assets and liabilities denominated in currencies other than the Canadian dollar.

# **Access to Proprietary Information**

The Company generally controls access to and distribution of its technologies, documentation and other proprietary information. Despite efforts by the Company to protect its proprietary rights from unauthorized use or disclosure, parties may attempt to disclose, obtain or use its solutions or technologies. There can be no assurance that the steps the Company has taken or will be taking will prevent misappropriation of its solutions or technologies, particularly in foreign countries where laws or law enforcement practices may not protect proprietary rights as fully as in Canada or the United States.

# **Information Systems and Cyber-Security Risk**

The Company relies on information technology to manage, process, store and transmit electronic information. Complete, accurate, available and secure information is vital to the Company's operations and any compromise in such information could result in improper decision making, inaccurate or delayed operational and/or financial reporting, delayed resolution to problems, breach of privacy and/or unintended disclosure of confidential information. Failure in the completeness, accuracy, availability or security of the Company's information systems, the risk of system interruption or failure during system upgrades or implementation, or a breach of data security could adversely affect the Company's operations and financial results.

In addition, cyber-security incidents relating to the Company's information technology systems may disrupt operations and impact operating results. Cyber-security incidents may occur from a range of techniques, from phishing or hacking attacks to sophisticated malware, hardware or network attacks. While the Company has implemented systems, policies, procedures, practices, hardware and backups designed to prevent and limit the effect of cyber-security attacks, there can be no assurance that these measures will be sufficient to prevent, detect or address the attacks in a timely matter or at all. A successful cyber-attack may allow unauthorized interception, destruction, use or dissemination of the Company's confidential information, which could have a material adverse effect on the business.

# **Possible Volatility of Share Price**

The market price of the Company's common shares could be subject to wide fluctuations in response to, and may be adversely affected by, quarterly variations in operating results, announcements of technological innovations or new products by the Company or its competitors, changes in financial estimates by securities analysts, or other events or factors. In addition, the financial markets have experienced significant price and volume fluctuations. This volatility has had a significant effect on the market prices of securities issued by many companies for reasons unrelated to their operating performance. Broad market fluctuations or any failure of the Company's operating results in a particular quarter to meet market expectations may adversely affect the market price of the Company's common shares.

# **Environmental Regulation**

The Company's business and operations are subject to environmental regulations in various jurisdictions in which it operates. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Company's business and operations.

#### **Conflicts of Interest**

Certain directors, officers and other members of management of the Company and its subsidiaries serve (and may in the future serve) as directors, officers, promoters and members of management of other companies and therefore, it is possible that a conflict may arise between their duties as a director, officer or member of management of the Company or its subsidiaries and their duties as a director, officer, promoter or member of management of such other companies. The directors and officers of the Company are aware of the existence of laws governing accountability of directors and officers for corporate opportunity and requiring disclosures by directors of conflicts of interest and the Company will rely upon such laws in respect of any directors' and officers' conflicts of interest or in respect of any breaches of duty by any of its directors or officers. All such conflicts will be disclosed by such directors or officers in accordance with the Business Corporations Act (British Columbia) and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law.