UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-0

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 **[X]**

For the Quarterly Period Ended September 30, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 []

> For the transition period from to

> > Commission file number: 001-37515

Aqua Metals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

2500 Peru Dr. McCarran, NV 89437

(Address of principal executive offices, including zip code)

(510) 479-7635

(Registrant's telephone number, including area code)

Not Applicable

(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes [X] No []

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes [X] No []

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company (as defined in Rule 12b-2 of the Act):

Large accelerated filer []

Non-accelerated filer []

Smaller reporting company []

Emerging growth company [X]

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. [X]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes [] No [X]

As of November 6, 2018, there were 38,932,437 outstanding shares of the common stock of Aqua Metals, Inc.

47-1169572 (I.R.S. Employer Identification no.)

Accelerated filer [X]

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PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

AQUA METALS, INC. Condensed Consolidated Balance Sheets (in thousands, except share and per share amounts)

	September 30, 2018		December 31, 2017		
100770	(una	udited)	((Note 2)	
ASSETS					
Current assets	•	20 552	¢	22 502	
Cash and cash equivalents	\$	28,772	\$	22,793	
Accounts receivable		861		882	
Inventory		1,089		1,239	
Prepaid expenses and other current assets		322	-	770	
Total current assets		31,044		25,684	
Non-current assets					
Property and equipment, net		46,411		45,733	
Intellectual property, net		1,318		1,461	
Other assets		1,574		1,564	
Total non-current assets		49,303		48,758	
Total assets	\$	80,347	\$	74,442	
LIABILITIES AND STOCKHOLDERS' EQUITY					
Current liabilities					
Accounts payable	\$	1,874	\$	1,436	
Accrued expenses	Ŷ	2,020	Ψ	1,801	
Deferred rent, current portion		203		192	
Notes payable, current portion		323		405	
Convertible note payable, current portion		3,029		_	
Total current liabilities		7,449		3,834	
Deferred rent, non-current portion		644		771	
Asset retirement obligation		733		701	
Notes payable, non-current portion		8,669		8,839	
Convertible note payable, non-current portion		-		1,332	
Total liabilities		17,495		15,477	
Commitments and contingencies					
Stockholders' equity					
Common stock; \$0.001 par value; 50,000,000 shares authorized; 38,779,710 and 27,554,076 shares issued and outstanding as of September 30, 2018 and December 31, 2017, respectively					
51, 2017, respectively		39		27	
Additional paid-in capital		144,377		113,780	
Accumulated deficit		(81,564)		(54,842)	
Total stockholders' equity		62,852		58,965	
Total liabilities and stockholders' equity	\$	80,347	\$	74,442	

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

AQUA METALS, INC. Condensed Consolidated Statements of Operations (in thousands, except share and per share amounts) (Unaudited)

	Three months ended September 30,				ptember 30,			
		2018		2017		2018		2017
Product sales	\$	1,169	\$	589	\$	3,378	\$	1,192
Operating cost and expense								
Cost of product sales		6,453		3,140		16,489		5,671
Research and development cost		967		1,367		3,645		6,538
General and administrative expense		2,174		1,925		7,862		4,897
Impairment charge		-		-		-		2,411
Total operating expense		9,594		6,432		27,996		19,517
Loss from operations		(8,425)		(5,843)		(24,618)		(18,325)
Other income and expense								
Interest expense		(919)		(454)		(2,225)		(1,250)
Interest and other income		81		7		123		28
Total other expense, net		(838)		(447)		(2,102)		(1,222)
Loss before income tax expense		(9,263)		(6,290)		(26,720)		(19,547)
Income tax expense		<u> </u>		<u> </u>		(2)		(2)
Net loss	\$	(9,263)	\$	(6,290)	\$	(26,722)	\$	(19,549)
Weighted average shares outstanding, basic and diluted		38,779,710		20,265,020		32,553,939		19,732,372
Basic and diluted net loss per share	\$	(0.24)	\$	(0.31)	\$	(0.82)	\$	(0.99)

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

AQUA METALS, INC. Condensed Consolidated Statements of Cash Flows (Unaudited) (in thousands)

	Nine months ended September 30			
		2018		2017
Cash flows from operating activities:				
Net loss	\$	(26,722)	\$	(19,549)
Reconciliation of net loss to net cash used in operating activities				
Depreciation		2,354		2,149
Amortization of intellectual property		143		118
Accretion of asset retirement obligation		32		21
Fair value of warrant modification, net		402		-
Stock-based compensation		853		592
Amortization of debt discount		1,152		206
Amortization of deferred financing costs		64		63
Non-cash convertible note interest expense		509		456
Impairment of acquired intellectual property		-		2,411
Loss on sale of equipment		10		-
Inventory write down		179		-
Changes in operating assets and liabilities				
Accounts receivable		21		(577)
Inventory		(29)		(1,159)
Prepaid expenses and other current assets		448		150
Accounts payable		483		1,152
Accrued expenses		827		773
Deferred rent		(116)		(132)
		(19,390)		(13,326)
Net cash used in operating activities		(19,390)		(13,320)
Cash flows from investing activities:				
Purchases of property and equipment		(3,057)		(6,618)
Other assets		(10)		-
Intellectual property related expenditures		-		(436)
Net cash used in investing activities		(3,067)		(7,054)
Cash flows from financing activities:				
		20 754		11 556
Proceeds from issuance of common stock, net of transaction costs		28,754		11,556
Payments on notes payable		(206)		(133)
Payments on capital leases		(112)		(102)
Net cash provided by financing activities		28,436		11,321
Net increase (decrease) in cash, cash equivalents and restricted cash		5,979		(9,059)
Cash, cash equivalents and restricted cash at beginning of period		22,793		26,582
		22,795		20,502
Cash, cash equivalents and restricted cash at end of period	\$	28,772	\$	17,523
	N	ine months end	ad Santa	mbor 30
		2018	cu sepic	2017
Non-cash financing activities		2010		2017
Capital lease	\$	38	\$	
Total non-cash financing activities			-	
Total non-cash financing activities	\$	38	\$	-
Supplemental disclosure of non-cash transactions				
Change in property and equipment resulting from change in accounts payable	\$	(45)	\$	(344)
Change in property and equipment resulting from change in accrued expenses	\$	(8)	\$	(702)
Asset retirement obligation offset with asset retirement cost (property and				()
equipment)	\$	-	\$	670
Fair value of common stock issued for intellectual property	\$	-	\$	2,149
Change in equity resulting from a change in accrued expenses	\$	600	\$	
0 1	-	000		

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

1. Organization

Aqua Metals, Inc. (the "Company") was incorporated in Delaware and commenced operations on June 20, 2014 (inception). On January 27, 2015, the Company formed two wholly-owned subsidiaries, Aqua Metals Reno, Inc. ("AMR") and Aqua Metals Operations, Inc. (collectively, the "Subsidiaries"), both incorporated in Delaware. The Company is engaged in the business of lead recycling through its patented and patent-pending AquaRefiningTM technology. Unlike smelting, AquaRefining is a room temperature, water-based process that emits less pollution than smelting, the traditional method of lead recycling. The Company has built its first recycling facility in Nevada's Tahoe Regional Industrial Complex ("TRIC") in McCarran, Nevada and intends to pursue the development of additional lead acid battery recycling facilities based on the Company's AquaRefining technology, likely through licensing or joint development arrangements. The Company commenced the shipment of products for sale, consisting of lead compounds and plastics. In April 2017, and through March 31, 2018, substantially all revenue was derived from the sale of lead compounds and plastics. In April 2018, the Company began shipping cast lead bullion (mixture of lead purchased to prime the kettles and AquaRefining process) blocks in addition to lead compounds and plastics and in June 2018, the Company began shipping high purity lead from its AquaRefining process.

2. Summary of Significant Accounting Policies

The significant accounting policies and estimates used in preparation of the condensed consolidated financial statements are described in the Company's audited consolidated financial statements as of and for the year ended December 31, 2017, and the notes thereto, which are included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the Securities and Exchange Commission, or the SEC, on March 15, 2018. There have been no material changes in the Company's significant accounting policies during the three and nine months ended September 30, 2018 except for the implementation of Accounting Standards Update ("ASU") No. 2016-18, Restricted Cash, ("ASU 2016-18"), as described below.

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") as found in the Accounting Standards Codification ("ASC") and ASU of the Financial Accounting Standards Board ("FASB") and pursuant to the rules and regulations of the SEC. Accordingly, they do not include all the information and footnotes required by such accounting principles for complete financial statements. In the opinion of management, all adjustments (which include normal recurring adjustments) considered necessary to present fairly each of the condensed consolidated balance sheet as of September 30, 2018, the condensed consolidated statements of operations for the three and nine months ended September 30, 2018 and September 30, 2017, and the condensed consolidated statements of cash flows for the nine months ended September 31, 2017 has been derived from the Company's audited financial statements as of such date, but it does not include all disclosures required by U.S. GAAP. The accompanying unaudited condensed consolidated financial statements for the period ended December 31, 2017, which are included on Form 10-K filed with the Securities and Exchange Commission on March 15, 2018.



The results of operations for the three and nine months ended September 30, 2018 are not necessarily indicative of results that may be expected for the year ended December 31, 2018.

Principles of consolidation

The accompanying unaudited condensed consolidated financial statements include the accounts of the Company and its Subsidiaries, both of which are wholly-owned subsidiaries. Significant inter-company accounts and transactions have been eliminated in consolidation.

Use of estimates

The preparation of the condensed consolidated financial statements requires management of the Company to make a number of estimates and assumptions relating to the reported amount of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, and the reported amounts of expenses during the period. Significant items subject to such estimates and assumptions include the carrying amount and valuation of long-lived assets, the valuation of conversion features of convertible debt, valuation allowances for deferred tax assets, the determination of fair value of estimated asset retirement obligations, the determination of stock option expense and the determination of the fair value of stock warrants issued. Actual results could differ from those estimates.

Restricted cash

Restricted cash was comprised of funds held in escrow at Green Bank for the purpose of paying for the construction of the lead recycling plant building in McCarran, Nevada. During 2017, the building was completed, and the funds held in escrow were dispersed.

In November 2016, the Financial Accounting Standards Board, FASB issued ASU No. 2016-18. The amendments in ASU 2016-18 require an entity to reconcile and explain the period-over-period change in total cash, cash equivalents and restricted cash within its statements of cash flows rather than reconciling and explaining the period-over-period change in total cash and cash equivalents (excluding restricted cash). The Company adopted this new ASU beginning January 1, 2018 using the required full retrospective approach. The adoption of this standard resulted in an increase in net cash used in investing activities of \$1.1 million in the condensed consolidated statements of cash flows for the nine months ended September 30, 2017. As there is no restricted cash at September 30, 2018. There was no restricted cash at September 30, 2017.

Net loss per share

Basic net loss per share is computed by dividing net loss by the weighted average number of common shares outstanding during the period. Diluted net loss per share is computed by dividing the net loss by the weighted-average number of common share equivalents outstanding for the period determined using the treasury-stock method or the if-converted method, as applicable. For purposes of this calculation, stock options, restricted stock units, or RSUs, and warrants to purchase common stock are considered to be common stock equivalents and are only included in the calculation of diluted net loss per share when their effect is dilutive.

The following outstanding shares subject to convertible notes, stock options, RSUs and warrants to purchase common stock were antidilutive due to a net loss in the periods presented and, therefore, were excluded from the dilutive securities computation for the nine months ended September 30, as indicated below.

September 30,				
2018	2017			
702.247	702.247			
1,632,483	624,329			
107,723	-			
2,340,828	2,340,828			
4,783,281	3,667,404			
	2018 702,247 1,632,483 107,723 2,340,828			

(1) The number of shares is based on the maximum number of shares issuable on exercise or conversion of the related securities as of the period end. Such amounts have not been adjusted for the treasury stock method or weighted average outstanding calculations as required if the securities were dilutive.

Segment and geographic information

Operating segments are defined as components of an enterprise engaging in business activities for which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The chief operating decision maker views its operations and manages its business in one operating segment, and the Company operates in only one geographic segment.

Concentration of credit risk

Revenues from the following customers each represented at least 10% of total revenue for the three and nine months ended September 30, 2018 and 2017, respectively. They also represented a significant portion of our accounts receivable as of September 30, 2018 and December 31, 2017, respectively.

	Revenu	e	Revenue		Accounts Receivable			
		Three months endedNine monthSeptember 30,September			September 30,	December 31,		
	2018	2017	2018	2017	2018	2017		
Johnson Controls Battery								
Group, Inc.	94.7%	96.1%	86.4%	95.2%	94.8%	95.4%		
Ocean Partners USA, Inc.	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%		
		6						

Recent accounting pronouncements

In February 2016, the FASB issued ASU 2016-02 - *Leases* (ASC 842), which sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract (i.e. lessees and lessors). The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease, respectively. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less will be accounted for similar to existing guidance for operating leases today. ASC 842 supersedes the previous leases standard, ASC 840 Leases. The standard is effective on January 1, 2019, with early adoption permitted. The new standard requires a modified retrospective transition relief. In July 2018, the FASB issued ASU No. 2018-11, Leases (Topic 842): Targeted Improvements, which amends ASC Topic 842 to provide another transition method, allowing a cumulative effect adjustment to the opening balance of retained earnings during the period of adoption. The Company has two longer term office leases and a few small equipment leases. At January 1, 2019, the Company will record a lease liability equal to the present value of future lease payments not yet paid on each of these leases and an asset for its right to use the underlying assets.

In June 2018, the FASB issued ASU 2018-07 – *Compensation – Stock Compensation (ASC 718) Improvements to Nonemployee Share-Based Payment Accounting*. This update expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees. The standard is effective on January 1, 2019 with early adoption permitted. The Company has elected to adopt ASU 2018-07 immediately. There is no impact to the Company's financial statements upon adoption as there are currently no share-based payments to nonemployees. However, this standard will simplify the accounting for future share-based payments to nonemployees, as applicable.

There were no other recent accounting pronouncements or changes in accounting pronouncements during the nine months ended September 30, 2018 that are of significance or potential significance to the Company.

3. Revenue recognition

Revenues are recognized when control of the promised goods is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods. Generally, this occurs with the delivery of the Company's products, primarily hard lead, lead compounds and plastics, to customers. Sales, value add, and other taxes, if any, that are collected concurrent with revenue-producing activities are excluded from revenue as they are subsequently remitted to governmental authorities. Incidental items that are immaterial in the context of the contract are recognized as expense. Freight and shipping costs related to the transfer of the Company's products to customers are included in revenue and cost of product sales, to the extent that the Company bears these costs. Payment on invoices is generally due within 30 days of the invoice.

The Company generates revenues by recycling lead acid batteries ("LABs") and selling the recovered lead to its customers. Primary components of the recycling process include sales of recycled lead consisting of lead compounds, cast hard lead and cast AquaRefined lead as well as plastics. The Company commenced the shipment of products for sale, consisting of lead compounds and plastics, in April 2017, and through March 31, 2018, all revenue was derived from the sale of lead compounds and plastics. In April 2018, the Company began shipping lead bullion in addition to lead compounds and plastics. In June 2018, the Company began shipping high purity lead from its AquaRefining process.

Arrangements with Multiple Performance Obligations

Contracts with customers may include multiple performance obligations. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account in ASC 606. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. The Company expects that many of its contracts will continue to have a single performance obligation as the promise to transfer individual goods will not be separately identifiable from other promises in the contracts and therefore, not distinct. For contracts with multiple performance obligations, revenue will be allocated to each performance obligation based on the Company's best estimate of the standalone selling price of each distinct good or service in the contract. The primary method used to estimate standalone selling prices is based on prices charged separately to customers or expected cost-plus margin.

Revenue from products transferred to customers at a single point in time, as noted above with the delivery of the Company's products to customers, accounted for 100% of our revenue during the three and nine months ended September 30, 2018 and 2017.

Practical Expedients and Exemptions

The Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which it recognizes revenue at the amount to which it has the right to invoice for services performed.

4. Inventory

Inventory consisted of the following (in thousands):

	•	nber 30, 018	December 31, 2017	
Finished goods	\$	90	\$ 512	
Work in process		297	182	
Raw materials		702	545	
Total inventory	\$	1,089	\$ 1,239	
		8		

5. Property and equipment, net

Property and equipment, net, consisted of the following (in thousands):

Asset Class	Useful Life (Years)		fe September 30, 2018		December 31, 2017	
Operational equipment	3-10	\$	15,923	\$	15,457	
Lab equipment	5		687		685	
Computer equipment	3		195		174	
Office furniture and equipment	3		330		326	
Leasehold improvements	5-7		1,388		1,408	
Land	-		1,047		1,047	
Building	39		24,859		24,847	
Asset retirement cost	20		670		670	
Equipment under construction			7,073		4,552	
			52,172		49,166	
Less: accumulated depreciation			(5,761)	_	(3,433)	
Total property and equipment, net		\$	46,411	\$	45,733	

Depreciation expense was \$0.8 million and \$2.4 million for the three and nine months ended September 30, 2018, respectively, and \$0.8 million and \$2.1 million for the three and nine months ended September 30, 2017, respectively. Equipment under construction is primarily AquaRefining modules manufactured by the Company to be used in the McCarran, Nevada recycling plant.

6. Asset Retirement Obligation

ASC Topic 410-20, "Asset Retirement and Environmental Obligations, Asset Retirement Obligations" requires the recording of a liability in the period in which an asset retirement obligation (ARO) is incurred, in an amount equal to the discounted estimated fair value of the obligation that is capitalized. In each subsequent fiscal quarter, this liability is accreted up to the final retirement cost. The determination of the ARO is based on an estimate of the future cost to remove and decontaminate the McCarran facility upon closure. The actual costs could be higher or lower than current estimates. The discounted estimated fair value of the closure costs is \$670,000 and the obligation was recorded as of March 31, 2017, when the obligation was deemed to have occurred. Offsetting this ARO is, as noted in Note 5 above, an asset retirement cost of the same amount that has been capitalized. The estimated fair value of the closure costs is based on vendor quotes to remove and decontaminate the McCarran facility in accordance with the Company's closure plan as filed with the State of Nevada in its "Application for the Recycling of Hazardous Waste, by Written Determination" in 2016. Accretion of the ARO for the three and nine months ended September 30, 2018 was \$11,000 and \$32,000, respectively. Accretion of the ARO for the three and nine months ended September 30, 2017 was \$11,000 and \$21,000, respectively.



The Company has entered into a facility closure trust agreement for the benefit of the Nevada Division of Environmental Protection (NDEP), an agency of the Nevada Division of Conservation and Natural Resources. Funds deposited in the trust are to be available, when and if needed, for potential decontamination and hazardous material cleanup in connection with the closure and/or post-closure care of the facility. The trustee will reimburse the Company or other persons as specified by the NDEP from the fund for closure and post-closure expenditures in such amounts as the NDEP shall direct in writing. Through December 31, 2017, \$450,000 has been contributed to the trust fund; \$220,000 will be due on October 31, 2018.

7. Convertible Note Payable

The convertible note payable is with Interstate Battery Systems International, Inc. (Interstate Battery) and is comprised of the following (in thousands):

	Septe	December 31, 2017		
Convertible note payable	\$	5,000	\$	5,000
Accrued interest		1,470		961
Deferred financing costs, net		(31)		(67)
Note discount		(3,410)		(4,562)
	•			
Less current portion	\$	3,029		-
Convertible note payable, non-current portion	\$	-	\$	1,332

The convertible note payable bears interest at 11% per annum and is due May 24, 2019. The original note discount was calculated as the allocated fair value of the warrants issued in connection with the transaction, which included the issuance of common stock, warrants and the convertible note, as well as the allocated fair value of the embedded conversion feature, subject to limitations on the absolute amount of discount attributable to the convertible notes and its allocated value. The discount is being amortized using the effective interest method over the three-year term of the note, maturing on May 24, 2019.

8. Notes Payable

AMR entered into a \$10,000,000 loan with Green Bank on November 3, 2015. The term of the loan is twenty-one years. During the first twelve months, only interest was payable and thereafter monthly payments of interest and principal are due. The interest rate adjusts on the first day of each calendar quarter to the greater of six percent (6%) or two percent (2%) per annum above the minimum prime lending rate charged by large U.S. money center commercial banks as published in the Wall Street Journal. The terms of the Loan Agreement contain various affirmative and negative covenants. Among them, AMR must maintain a minimum debt service coverage ratio of 1.25 to 1.0 (beginning with the twelve-month period ending March 31, 2017), a maximum debt-to-net worth ratio of 1.0 to 1.0 and a minimum current ratio of 1.5 to 1.0. AMR was in compliance with all but the minimum debt service coverage ratio covenant as of and for each of the calendar quarters in the period March 31, 2017 through September 30, 2018. AMR has received a waiver for the minimum debt service coverage ratio covenant for each of the aforementioned calendar quarters.

The net proceeds of the loan were used for the construction of the Company's lead acid recycling operation McCarran, Nevada. Collateral for this loan is AMR's accounts receivable, goods, equipment, fixtures, inventory, accessions and a certificate of deposit in the amount of \$1,000,000.

The loan is guaranteed by the United States Department of Agriculture Rural Development ("USDA"), in the amount of 90% of the principal amount of the loan. The Company paid a guarantee fee to the USDA in the amount of \$270,000 at the time of closing and will be required to pay to the USDA an annual fee in the amount of 0.50% of the guaranteed portion of the outstanding principal balance of the loan as of December 31 of each year.

Notes payable is comprised of the following (in thousands):

	Sep	tember 30, 2018	December 31, 2017	
Notes payable, current portion				
Capital equipment leases	\$	32	\$	128
Green Bank, net of issuance costs		291		277
Total notes payable, current portion	\$	323	\$	405
Notes payable, non-current portion				
Capital equipment leases	\$	33	\$	11
Green Bank, net of issuance costs		8,636		8,828
Total notes payable, non-current portion	\$	8,669	\$	8,839

The costs associated with obtaining the Green Bank loan were recorded as a reduction to the carrying amount of the note and are being amortized as interest expense within the condensed consolidated statements of operations over the twenty-one year life of the loan.

9. Stockholders' Equity

Shares issued

On June 18, 2018, the Company completed a public offering of 10,085,500 shares of its common stock, at the price of \$2.85 per share, for gross proceeds of \$28.7 million. After the payment of underwriter discounts and offering expenses, the Company received net proceeds of approximately \$26.6 million.

1,072,500 shares of common stock were issued during January 2018 upon exercise of the overallotment option related to the December 2017 public offering, netting proceeds to the Company of \$2.1 million.

The Company issued 65,600 shares of common stock upon vesting of Restricted Stock Units during the nine months ended September 30, 2018. Additionally, the Company issued 2,034 shares of common stock pursuant to the Officers and Directors Purchase Plan during the nine months ended September 30, 2018 for proceeds of \$4,000.

Warrant modification

On June 24, 2018, the Company entered into a series of agreements (see Note 10 for details) with Interstate Battery, which modified the terms of a warrant to purchase 702,247 shares of our common stock by reducing the exercise price of the warrant from \$7.12 per share to \$3.33 per share and extended the expiration date of the warrant from June 24, 2018 to June 23, 2020. The expiration date had previously been extended from May 2018 to June 2018 as part of the overall negotiations. The incremental fair value resulting from this modification was calculated to be \$1.0 million using the Black-Scholes-Merton Option Pricing Model with the assumptions as follows: \$3.26 per share fair value on the date of modification; 2-year term; 80.2% volatility; 2.56% discount rate and 0% annual dividend rate.

The Company previously recorded \$0.6 million in general and administrative expense during the year ended December 31, 2017 with the offset in accrued liabilities as an estimate of this liability. Upon modification, the Company recorded an additional \$0.4 million in general and administrative expense for the three months ended June 30, 2018, relieved \$0.6 million in accrued liabilities with the \$1.0 million offset to additional paid-in capital.

Stock-based compensation

The stock-based compensation expense attributable to option grants was allocated as follows:

	Thre	Three months ended September 30,				Nine months ended September 30,			
	2	2018		2017	2	2018	,	2017	
Cost of product sales	\$	35	\$	17	\$	132	\$	41	
Research and development cost		26		62		215		222	
General and administrative expense		300		46		506		329	
Total	\$	361	\$	125	\$	853	\$	592	

The following assumptions were used in the Black-Scholes-Merton pricing model to estimate the fair value of options granted during the periods presented.

	Three months ended S	September 30,	Nine months ended S	eptember 30,
	2018	2017	2018	2017
Expected stock volatility	78.0%-79.3%	70.7%-71.4%	78.0%-86.3%	70.7%-72.7%
Risk free interest rate	2.6%-2.9%	1.5%-1.7%	2.1%-2.9%	1.4%-1.8%
Expected years until exercise	3.5%	3.5%	2.5 - 3.5%	2.5 - 3.5%
Dividend yield	0%	0%	0%	0%

There were no stock option exercises during the three and nine months ended September 30, 2018.

Stock option issuances

In connection with his appointment as President of the Company in May 2018, Stephen Cotton was awarded options to purchase up to 840,000 shares of the Company's common stock. Options to purchase 420,000 common shares are exercisable over a five-year period at an exercise price of \$3.00 per share. Options to purchase 210,000 common shares are exercisable over a five-year period at an exercise price of \$5.00 per share and options to purchase 210,000 common shares are exercisable over a five-year period at an exercise price of \$7.00 per share. The options vest in 1/36th increments during each of the first twelve months following the date of grant and thereafter the options vest in one-third increments on the second and third anniversary of the date of grant. The options issued are subject to the terms and conditions of the Company's Amended and Restated 2014 Stock Incentive Plan ("2014 Plan) but were not issued under the 2014 Plan in reliance on with Nasdaq Rule 5635(c)(4) and therefore do not reduce the number of shares available under the 2014 Plan.

Stock option modification

In connection with his termination, the stock options of the Company's former CEO were modified to extend the exercise period upon termination from 90 days to 2 years. The expense related to the modification of these stock option awards was approximately \$15,000.

Restricted Stock Units

In April 2018, the Company granted 150,000 restricted stock units (RSUs), all of which were subject to vesting, with a grant fair value of \$339,000 to its then-Chief Financial Officer, Francis Knuettel II, as part of his employment agreement. Mr. Knuettel resigned in August 2018 and all of the RSUs expired by their terms prior to vesting.

10. Commitments and Contingencies

On April 19, 2018, Stephen Clarke resigned as president and chief executive officer and as a member of the Board. Dr. Clarke's resignation as an officer the Company was treated as a termination without cause under his employment agreement with the Company. Pursuant to his employment agreement, Dr. Clarke was entitled to one-time severance benefits that includes severance and benefits continuation expense of approximately \$0.9 million paid out over a 2-year period in consideration of his execution of a customary release and separation agreement. Additionally, as noted above, Dr. Clarke was granted an extension of the exercise period of his stock options upon termination from 90 days to 2 years. The expense related to the modification of these stock option awards was approximately \$15,000.



Interstate Battery Agreement commitment

Pursuant to the 2016 Interstate Battery Investor Rights Agreement, the Company had agreed to compensate Interstate Battery should either Stephen Clarke, the Company's former chief executive officer, or Selwyn Mould, the Company's current chief operating officer, no longer hold such positions or no longer devote substantially all of their business time and attention to the Company, whether as a result of resignation, death, disability or otherwise (such an event referred to as a "key-man event"). The Company had agreed to pay Interstate Battery \$2.0 million, per occurrence, if either officer is subject to a key-man event during the two years following May 18, 2016. The Company also agreed to pay Interstate Battery \$2.0 million if either or both officers are subject to a key-man event during the third year following May 18, 2016. Pursuant to the Interstate Battery Investor Rights Agreement, the key-man payments are payable, at the option of the Company, in cash or shares of the Company's common stock. Pursuant to the agreement, if Interstate Battery, in its sole and absolute discretion, agrees with the Company on mutually acceptable replacements. for Messrs. Clarke and/or Mould, as the case may be, the key man penalties shall be deemed waived by Interstate Battery.

Interstate Battery had previously raised a claim that the Company was in technical breach of a negative covenant under the Credit Agreement dated May 18, 2016 between the Company and Interstate Battery. The claimed breach related to the Company's failure to obtain Interstate Battery's prior written consent to its acquisition of Ebonex IPR, Ltd.

On June 24, 2018, the Company entered into a series of agreements with Interstate Battery, including an amendment to the Investor Rights Agreement. Pursuant to the amendment to the Investor Rights Agreement, Interstate Battery agreed to waive all payments under the key-man provisions of the Investor Rights Agreement with respect to the resignation of the Company's former chief executive officer, Stephen Clarke. In addition, the parties agreed that the Company, at its option, can elect to eliminate the key-man event and all related key-man payments associated with Mr. Mould by (i) paying Interstate Battery a one-time fee of \$0.5 million, payable in cash and (ii) agreeing to pay Interstate Battery \$2.0 million, payable at the Company's election in cash or shares of its common stock, should the Company's current president, Stephen Cotton no longer serve as president of the Company during the period ending May 18, 2019. Additionally:

- With respect to a Credit Agreement dated May 18, 2016 between the Company and Interstate Battery, Interstate Battery waived the alleged breach of the Credit Agreement based on the Company's acquisition of Ebonex IPR, Ltd.;
- The Company adjusted the terms of a warrant to purchase 702,247 shares of its common stock issued to Interstate Battery in May 2016, pursuant to which the exercise price of the warrant was decreased from \$7.12 per share to \$3.33 per share and the expiration date of the warrant was extended to June 23, 2020; and
- Interstate Battery agreed to provide the Company with more favorable pricing and payment terms under the Supply Agreement dated May 18, 2016 pursuant to which the Company buys used lead acid batteries from Interstate Battery.

Johnson Controls Agreement Commitment

Pursuant to the Johnson Controls Investor Rights Agreement, the Company has agreed to compensate Johnson Controls should either Stephen Clarke, the Company's former chief executive officer, or Selwyn Mould, the Company's current chief operating officer, no longer hold such positions or no longer devote substantially all of their business time and attention to the Company, whether as a result of resignation, death, disability or otherwise (such an event referred to as a "key-man event"). The Company has agreed to pay Johnson Controls \$1.0 million per occurrence, if either officer is subject to a key-man event during the 18 months following February 7, 2017. The Company also agreed to pay Johnson Controls \$1.0 million if either or both key-man events occur after 18 months and prior to 30 months following February 7, 2017. Pursuant to the Johnson Controls Investor Rights Agreement, the key-man payments are payable, at the option of the Company, in cash or shares of the Company's common stock. Pursuant to the agreement, if Johnson Controls, in its sole and absolute discretion, agrees with the Company on mutually acceptable replacements. for Messrs. Clarke and/or Mould, as the case may be, the key man penalties shall be deemed waived by Johnson Controls.



Legal proceedings

Beginning on December 15, 2017, three purported class action lawsuits were filed in the United Stated District Court for the Northern District California against the Company, Stephen Clarke, Thomas Murphy and Mark Weinswig. On March 23, 2018, the cases were consolidated under the caption In Re: Aqua Metals, Inc. Securities Litigation Case No 3:17-cv-07142. On May 23, 2018, the Court appointed lead plaintiffs and approved counsel for the lead plaintiffs. On July 20, 2018, the lead plaintiffs filed a consolidated amended complaint ("Amended Complaint"), on behalf of a class of persons who purchased the Company's securities between May 19, 2016 and November 9, 2017, against the Company, Stephen Clarke, Thomas Murphy and Selwyn Mould. The Amended Complaint alleges the defendants made false and misleading statements concerning the Company's lead recycling operations in violation of Section 10(b) of the Securities Exchange Act of 1934 ("Exchange Act") and Rule 10b-5 promulgated thereunder. The Amended Complaint seeks to hold the individual defendants as control persons pursuant to Section 20(a) of the Exchange Act. The Amended Complaint also alleges a violation of Section 11 of the Securities Act of 1933 ("Securities Act") based on alleged false and misleading statements concerning the Company's lead recycling operations contained in, or incorporated by reference in, the Company's Registration Statement on Form S-3 filed in connection with its November 2016 public offering. That claim is asserted on behalf of a class of persons who purchased shares pursuant to, or that are traceable to, that Registration Statement. The Amended Complaint seeks to hold the individual defendants liable as control persons pursuant to Section 15 of the Securities Act. The Amended Complaint seeks unspecified damages and plaintiffs' attorneys' fees and costs. On September 18, 2018, the defendants filed a motion to dismiss the Amended Complaint in its entirety. The plaintiff has not vet filed its opposition to the motion. The Company denies that the claims in the Amended Complaint have any merit and it intends to vigorously defend the action.

Beginning on February 2, 2018, five purported shareholder derivative actions were filed in the United States District Court for the District of Delaware against the Company and certain of its current and former executive officers and directors, Stephen R. Clarke, Selwyn Mould, Thomas Murphy, Mark Weinswig, Vincent DiVito, Mark Slade and Mark Stevenson. On May 3, 2018, the cases were consolidated under the caption In re Aqua Metals, Inc. Stockholder Derivative Litigation, Case No. 1:18-cv-00201-LPS (D. Del.). The complaints were filed by persons claiming to be stockholders of Aqua Metals and generally allege that certain of the Company's officers and directors breached their fiduciary duties to the Company by violating the federal securities laws and exposing the Company to possible financial liability. The complaints seek unspecified damages and plaintiffs' attorneys' fees and costs. The parties have entered into a stipulation staying the action until 30 days after a decision on the Company's motion to dismiss the Amended Complaint in the class action described above. The Company denies that the claims in the shareholder derivative action have any merit and it intends to vigorously defend the action.

The Company is not party to any other legal proceedings. The Company may, from time to time, be party to litigation and subject to claims incident to the ordinary course of business. As its growth continues, the Company may become party to an increasing number of litigation matters and claims. The outcome of litigation and claims cannot be predicted with certainty, and the resolution of any future matters could materially affect its future financial position, results of operations or cash flows.

11. Subsequent Events

The Company has evaluated subsequent events through the date which the condensed consolidated financial statements were available to be issued.

In October 2018, the Company moved its corporate headquarters to its McCarran, Nevada facility and ceased to use its Alameda, California facility. The Company is in the process of seeking a tenant for this property and will record a liability for the present value of remaining lease payments less estimated sublease income in the fourth quarter of 2018. Additionally, the Company will write-off the net book value of its leasehold improvements of approximately \$0.8 million during the fourth quarter of 2018. The restructuring charge incurred by the Company related to the relocation was not material.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Cautionary Statement

The following discussion and analysis should be read in conjunction with our unaudited condensed consolidated financial statements and the related notes thereto contained elsewhere in this report. The information contained in this quarterly report on Form 10-Q is not a complete description of our business or the risks associated with an investment in our common stock. We urge you to carefully review and consider the various disclosures made by us in this report and in our other filings with the Securities and Exchange Commission, or SEC, including our Annual Report on Form 10-K for the year ended December 31, 2017 filed with the SEC on March 15, 2018, or our Annual Report.

In this report we make, and from time to time we otherwise make written and oral statements regarding our business and prospects, such as projections of future performance, statements of management's plans and objectives, forecasts of market trends, and other matters that are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Statements containing the words or phrases "will likely result," "are expected to," "will continue," "is anticipated," "estimates," "projects," "believes," "expects," "anticipates," "intends," "target," "goal," "plans," "objective," "should" or similar expressions identify forward-looking statements, which may appear in our documents, reports, filings with the SEC, and news releases, and in written or oral presentations made by officers or other representatives to analysts, stockholders, investors, news organizations and others, and in discussions with management and other of our representatives.

Our future results, including results related to forward-looking statements, involve a number of risks and uncertainties, including those risks included below in Part II, Item 1 "Risk Factors". No assurance can be given that the results reflected in any forward-looking statements will be achieved. Any forward-looking statement speaks only as of the date on which such statement is made. Our forward-looking statements are based upon assumptions that are sometimes based upon estimates, data, communications and other information from suppliers, government agencies and other sources that may be subject to revision. Except as required by law, we do not undertake any obligation to update or keep current either (i) any forward-looking statement to reflect events or circumstances arising after the date of such statement or (ii) the important factors that could cause our future results to differ materially from historical results or trends, results anticipated or planned by us, or which are reflected from time to time in any forward-looking statement.

General

Aqua Metals (NASDAQ: <u>AQMS</u>) is engaged in the business of lead recycling through its novel, proprietary and patented AquaRefiningTM technology. AquaRefining is a near room temperature, water and organic acid-based process that greatly reduces environmental emissions. We believe our suite of patented and patent pending AquaRefining technologies, as well as trade secret advancements in battery breaking and separation, electrolyte digestion and management, and modular electrolyzer systems yielding high purity lead, will allow the lead-acid battery industry to simultaneously improve the environmental impact of lead recycling and scale recycling production to meet demand. We were formed as a Delaware corporation on June 20, 2014 and since our formation, we have focused our efforts on the development and testing of our AquaRefining process, the construction of our initial lead acid battery, or LAB, recycling facility at the Tahoe-Reno Industrial Center, or TRIC, located near McCarran, Nevada and commercializing the AquaRefining process.



We completed the construction of our first LAB recycling facility at TRIC and commenced production during the first quarter of 2017. The TRIC facility is designed to produce recycled lead, consisting of high purity AquaRefined lead, lead bullion, alloys (for specific applications in batteries) and plastics derived from LABs. We commenced the shipment of products for sale, consisting of lead compounds, metallic lead and plastics, in April 2017 and through March 31, 2018 all revenue was derived from the sale of lead compounds, metallic lead and plastics. In April 2018, we began shipping cast lead bullion (mixture of lead purchased to prime the kettles and AquaRefined lead from our AquaRefining process) blocks in addition to lead compounds and plastics. In June 2018, we began shipping high purity lead made solely from our AquaRefining process.

In June 2018, we also began staffing our AquaRefining operations 24 hours per day and 4 days per week and subsequently scaled staffing our AquaRefining operations further in August to 24 hours per day and 7 days per week. Although operations are staffed 24 hours a day to produce the electrolyte that feeds our AquaRefining modules and to run modules, any given module is not running 24 hours a day. Rather, we are rotating through the 4 modules we have commissioned and running 1 to 2 modules at a time as many hours a day as possible with the goal of generally increasing the number of hours per day any given module is run. Since June, we have increased the average number of hours from under 10 of the 24 hours to regularly achieving 20+ of the 24 hours per module run resulting in 100 kilograms / hour of AquaRefined lead production per module, which the company announced in October 2018. From these experiences, we have continued making regular and minor improvements to improve module run hours and anticipate continued growth in module utilization in the coming weeks and months.

Upon completing and commissioning the infrastructure and operational improvements already underway in the facility which are intended to result in positive contribution margin for AquaRefined lead product, we will then scale the plant and bring additional modules on line. These infrastructure and operational improvements allow us to recover and recycle our chemical feedstock much more efficiently thus improving our contribution margin. We estimate Phase One of these improvements will take us up to 75% towards our target for electrolyte recapture and Phase Two will complete the remaining 25%. We have completed testing of Phase One of the system and have begun installing the equipment and remain on track to complete Phase One by the end of 2018. We have also begun testing Phase Two and are very pleased with the initial results.

Ultimately, our goal is to operate all 16 modules running on a continuous basis, however we have decided that the initial operation of fewer modules continuously will allow us to reach full scale operations in a more cost-effective manner. In addition, we believe this operational strategy will allow us to synchronize the remaining components of the plant in support of increased AquaRefining. Once we have achieved positive contribution margin and are satisfied with the operation of the first four modules and the supporting infrastructure, additional modules will be brought into production. This process will be repeated until full production is reached with all 16 modules. However, due to the delays and unforeseen operational issues we have experienced to date, there can be no assurance that we will be able to overcome the current production and performance issues in a timely manner or that we will not encounter additional delays and issues.

Since January 1, 2018, we have engaged in the following non-routine transactions:

Amendments of Interstate Battery agreements. On June 24, 2018, we entered into a series of agreements with Interstate Battery International, Inc. and its wholly-owned subsidiary ("Interstate Battery"), including an amendment to the Investor Rights Agreement dated May 18, 2016 with Interstate Battery pursuant to which, among other things, we agreed to compensate Interstate Battery should either Stephen Clarke, our former chief executive officer, or Selwyn Mould, our current chief operating officer, no longer hold such positions or no longer devote substantially all of their business time and attention to our company, whether as a result of resignation, death, disability or otherwise (such an event referred to as a "key-man event"). Pursuant to the Investor Rights Agreement, we agreed to pay Interstate Battery \$2,000,000, per occurrence, if either officer was subject to a key-man event during the two years following May 18, 2016. We also agreed to pay Interstate Battery \$2,000,000 if either or both officers are subject to a key-man event during the third year following May 18, 2016. Pursuant to the amendment to the Investor Rights Agreement, Interstate Battery agreed to waive all payments under the key-man provisions of the Investor Rights Agreement with respect to the resignation of our former chief executive officer, Stephen Clarke. In addition, the parties agreed that we, at our option, can elect to eliminate the key-man event and all related key-man payments associated with Mr. Mould by (i) paying Interstate Battery a one-time fee of \$0.5 million, payable by us in cash and (ii) agreeing to pay Interstate Battery \$2.0 million, payable at our election in cash or shares of our common stock, should our current president, Stephen Cotton no longer serve as our president during the period ending May 18, 2019. Additionally:

- With respect to a Credit Agreement dated May 18, 2016 between us and Interstate Battery, Interstate Battery waived the alleged breach of the Credit Agreement based on our acquisition of Ebonex IPR, Ltd.;
- We adjusted the terms of a warrant to purchase 702,247 shares of its common stock issued to Interstate Battery in May 2016, pursuant to which the exercise price of the warrant was decreased from \$7.12 per share to \$3.33 per share and the expiration date of the warrant was extended to June 23, 2020; and
- Interstate Battery agreed to provide us with more favorable pricing and payment terms under the Supply Agreement dated May 18, 2016 pursuant to which we buy used lead acid batteries from Interstate Battery.

Public Offering. On June 18, 2018, we completed a public offering of 10,085,500 shares of our common stock, at the price of \$2.85 per share, for gross proceeds of \$28.7 million. After the payment of underwriter discounts and offering expenses we received net proceeds of approximately \$26.6 million.

In January 2018, we issued 1,072,500 shares of common stock upon exercise of the overallotment option related to the December 2017 public offering, netting proceeds to us of \$2.1 million.

Plan of Operations

Our plan of operations for the 12-month period following the date of this report, in the event that we achieve positive contribution margin, is to complete the commercial roll-out of all 16 AquaRefining modules installed at TRIC and to ramp up the production of AquaRefined lead.

We expect to achieve the full previously negotiated premium value for ongoing shipments of AquaRefined lead from our partner Johnson Controls in the near future and, as previously announced in October, we have our ingot casting line in production, which enables us to ship our key product in final ingot form directly to battery manufacturing facilities and be compatible with the equipment in those facilities. We are also working with other prospective buyers in the lead industry who are seeking ultra-pure lead for both offtake diversity and an average higher premium than we've negotiated with Johnson Controls. In 2019, in addition to batteries being made from AquaRefined lead, we are also exploring non-battery products such as radiation mitigation and structural isolation systems to be made incorporating AquaRefined lead which could improve performance of such products and possibly further improve the brand value of AquaRefined lead and AquaRefining technologies.

Additionally, we plan to further improve the plant economics by processing a growing proportion of the metallic lead we recover from breaking batteries within the AquaRefinery and have begun to commission the remaining 4 of our 6 kettles in the refining area. We anticipate the success of this planned program will unlock additional contribution margin in early 2019 by enabling us to finish a growing proportion of these materials in house, thus realizing a continually improving margin and positioning us for earning a premium later in 2019 by refining alloys in house. We are in the process of commissioning three to four of the already purchased kettles as a key part of our project to enable our capability to process this material. We are also developing what we believe to be industry leading know how and other intellectual property that we are making every effort to secure and add to our suite of smelting-free lead recycling technologies that we believe we can in turn monetize by licensing.



In parallel with our efforts to commercialize our existing AquaRefining operations and test further the premiums we can receive for our ultra-pure AquaRefined lead, our 12-month plan of operations also includes our proposal to license our technology, either through a co-processing arrangement whereby we operate our technology in conjunction with an existing smelter or our licensee operates directly utilizing our technology, and provide planning, engineering, technical assistance, equipment and other services in support of the addition of an AquaRefining facility to a battery recycling facility owned by Johnson Controls. This proposed work is expected to produce a blueprint for further additions of AquaRefining facilities under a proposed definitive development agreement with Johnson Controls pursuant to which we will collaborate with Johnson Controls for the deployment of AquaRefining technologies within Johnson Controls' and certain strategic partners of Johnson Controls existing lead smelters to a lead recycling process utilizing our proprietary AquaRefining technology and equipment, know-how and services. However, there can be no assurance that we will be able to conclude a definitive development agreement with Johnson Controls on terms that benefit us, if at all.

Our 12-month plan of operations includes the pursuit and evaluation of additional strategic relationships and the licensing of our technology and the provision of equipment and services to other potential strategic partners. There can be no assurance that we will be able to acquire the necessary funding, if necessary, on commercially reasonable terms or at all to effect any of these additional partnerships in the future. There can also be no assurance we will be able to conclude the proposed development agreement with Johnson Controls by April 2019.

Results of Operations

During the second quarter of 2017, we began shipments of lead compounds and plastics to customers. During the second quarter of 2018, we began shipments of lead bullion in addition to lead compounds and plastics to customers. The following table summarizes results of operations with respect to the items set forth below for the three and nine months ended September 30, 2018 and 2017 together with the percentage change in those items (in thousands).

	Three months ended September 30,				Nine months ended September 30,			
	2018	2017	Favorable (Unfavorable)	% Change	2018	2017	Favorable (Unfavorable)	% Change
Product sales	\$ 1,169	<u>\$ 589</u>	<u>\$ 580</u>	<u>98.5</u> %	\$ 3,378	\$ 1,192	\$ 2,186	<u>183.4</u> %
Cost of product sales	6,453	3,140	(3,313)	105.5%	16,489	5,671	(10,818)	190.8%
Research and development cost	967	1,367	400	29.3%	3,645	6,538	2,893	44.2%
General and administrative expense	2,174	1,925	(249)	12.9%	7,862	4,897	(2,965)	60.5%
Impairment charge	-	-	-	0.0%	-	2,411	2,411	0.0%
Total operating expense	\$ 9,594	\$ 6,432	\$ (3,162)	49.2%	\$27,996	\$19,517	\$ (8,479)	43.4%

As mentioned above, product sales, consisting of lead compounds and plastics, began in April 2017. Cost of product sales consists of all operating costs incurred at our TRIC facility following the commencement of product sales. Costs incurred at the TRIC facility prior to commencement of sales were included in research and development costs. Cost of product sales includes raw materials, supplies and related costs, salaries and benefits, consulting and outside services costs, depreciation and amortization costs and insurance, travel and overhead costs. Sales during the nine months ended September 30, 2017 included five-month's worth of operations whereas 2018 included the entire three and nine-month periods at a higher level of operations. At September 30, 2017, we had 35 employees in the TRIC facility as we focused on starting commercial operations. At September 30, 2018, we had 66 employees at TRIC and are focused on our recycling lead operations, hiring for multiple shifts as well as continuing to commission various processes within the plant, all of which is included in cost of product sales.

Revenue for the three months ended September 30, 2018 nearly doubled compared to the three months ended June 30, 2017. Revenue during the nine months ended September 30, 2018 nearly tripled compared to the nine months ended September 30, 2017. These increases are due to the shift of our focus to introduce and grow production and sales of AquaRefined lead into our product mix. AquaRefined lead sales comprised 21% and 7% of total revenue during the three and nine months ended September 30, 2018, respectively. At full capacity, we expect AquaRefined lead sales to reach approximately 50% of total revenue. Prior to the shift, including during the three months ended March 31, 2018, we ran the balance of the plant at a high level to pressure test the non-AquaRefining infrastructure and sold the constituent components of LABs with little or no additional processing.

Cost of product sales remains high and can be attributed to a number of items, including but not limited to the cost of filling the AquaRefining system with electrolyte for our AquaRefining process, greater loss of electrolyte in the process than we expect to achieve following certain process improvements expected to be brought online over the next 3-12 months, increase in maintenance costs as we continue to adjust the modules as we increase operating time and hiring and training of personnel to run continuous operations of all 16 modules in advance of reaching continuous operations.

Research and development cost included TRIC operating cost prior to the commencement of product sales, including cost incurred to prepare our TRIC plant for operations. During the three and nine months ended September 30, 2018, research and development costs decreased by 29% and 44%, respectively, over the comparable period in 2017. The decline in research and development expense in the three and nine-month periods ended September 30, 2018 as compared to the prior year period is primarily associated with the cost of the TRIC facility being included in cost of product sales rather than research and development subsequent to the commencement of product sales during the second quarter of 2017 as well as an overall shift to production and commercial activities by the Company.

General and administrative expense has increased for the nine-month period ended September 30, 2018 versus September 30, 2017, primarily due to \$0.4 million increased legal fees associated with shareholder lawsuits, \$0.9 million in legal, proxy and solicitation fees associated with the efforts to address activist investors, \$0.3 million in patent related legal fees, \$0.9 million severance for our former chief executive officer, a net \$0.4 million noncash charge associated with modifying a warrant for 702,247 shares of common stock in connection with our settlement agreement with Interstate Battery (see Note 9 in the condensed consolidated financial statements for a more detailed description) as well as other increases in other professional fees. The increase for the three-month period ended September 30, 2018 is primarily due to increased legal fees associated with shareholder lawsuits. General and administrative expense during the three and nine-month period ended September 30, 2017 included a \$0.6 million accrual for estimated costs to resolve a claim of breach of a negative covenant in our convertible loan agreement with Interstate Battery.

In April 2017, we acquired all of the capital shares of Ebonex IPR Limited for consideration of \$2.5 million, consisting of cash, transaction costs and 123,776 shares of our common stock. The principal asset of Ebonex IPR Limited consisted of a patent portfolio with an independent fair value of \$0.1 million. Included in the purchase were certain fixed assets that have been determined by management to have no immediate value and were not considered in the valuation of Ebonex IPR. Due to the fair value of the patent portfolio being significantly less than total consideration, the early development stage of the technology acquired and the uncertainties inherent in research and development, we recorded a non-cash impairment charge of \$2.4 million for the period ended June 30, 2017.

The following table summarizes our other income and interest expense for the three and nine months ended September 30, 2018 and 2017 together with the percentage change in those items (in thousands).

	Three months ended September 30,				Nine months ended September 30,				
	2018	2017	Favora (Unfavor		% Change	2018	2017	Favorable (Unfavorable)	% Change
Other (expense) income				<u> </u>				·	
Interest expense	(919)	(454)	\$	(465)	102.4%	(2,225)	(1,250)	\$ (975)	78.0%
Interest and other income	81	7	\$	74	1057.1%	123	28	\$ 95	339.3%

Interest during the three and nine months ended September 30, 2018 relates primarily to the \$5.0 million Interstate Battery convertible note and the \$10.0 million notes payable, amortization of debt issuance costs incurred in connection with both of these notes, as well as an accrual for the USDA guarantee fee on the \$10.0 million note to Green Bank.

The note discount associated with the Interstate Battery convertible note is being amortized using the effective interest method over the three-year term of the note, maturing on May 24, 2019. Using the effective interest method results in higher expense in later periods. Thus, non-cash interest expense associated with the note discount amortization will be \$2.0 million in 2018 and \$2.6 million in 2019.

Liquidity and Capital Resources

As of September 30, 2018, we had total assets of \$80.3 million and working capital of \$23.6 million.

The following table summarizes our cash used in operating, investing and financing activities (in thousands):

	Nine months ended September 30,		
	2018	2017	
Net cash used in operating activities	(19,390)	(13,326)	
Net cash used in investing activities	(3,067)	(7,054)	
Net cash provided by financing activities	28,436	11,321	

Net cash used in operating activities

Net cash used in operating activities for the nine months ended September 30, 2018 and 2017 was \$19.4 million and \$13.3 million, respectively. Net cash used in operating activities during each of these periods consisted primarily of our net loss adjusted for noncash items such as depreciation, amortization, stock-based compensation charges, and the impairment charge as well as net changes in working capital.

Net cash used in investing activities

Net cash used in investing activities for the nine months ended September 30, 2018 and 2017 was \$3.1 million and \$7.1 million, respectively. Net cash used in investing activities during each of these periods consists primarily of purchases of fixed assets related to the build-out of our TRIC recycling facility in Nevada.

Net cash provided by financing activities

Net cash provided by financing activities for the nine months ended September 30, 2018 consisted of \$26.6 million net proceeds from our June 2018 public offering and \$2.1 million net proceeds from underwriters' exercise, in January 2018, of their overallotment option related to our December 2017 public offering. Net cash provided by financing activities for the nine months ended September 30, 2017 consists of \$10.5 million net proceeds from the issuance of common stock to Johnson Controls and \$1.1 million proceeds from the exercise of stock options. These increases are partially offset by principle payments against our capital leases and debt repayments.



As of the date of this report, we believe that our working capital is sufficient to fund our current plan of operations at TRIC over the next twelve months. However, we will require additional capital in order to increase production of AquaRefined lead at TRIC beyond that planned for 16 modules, and to fund our continued losses from operations until such time as we are able to achieve positive cash flow from operations. We intend to seek additional funds through various financing sources, including the sale of our equity and debt securities, licensing fees for our technology, joint ventures with capital partners and/or project financing of our recycling facilities. However, there can be no guarantees that such funds will be available on commercially reasonable terms, if at all. If such financing is not available on satisfactory terms, we may be unable to further pursue our business plan and we may be unable to continue operations. Additionally, Aqua Metals Reno, or AMR, was not in compliance with its the minimum debt service coverage ratio covenant on its load from Green Bank as of the fiscal quarter ends between March 31, and September 30, 2018. AMR received a waiver for the minimum debt service coverage ratio covenant for those periods. While we expect to continue to receive waivers from Green Bank for non-compliance with such covenant, there is no guarantee that we will receive such waivers. If Green Bank determines not to grant us a waiver for non-compliance in the future, we would be in default of the loan and Green Bank would be able to accelerate the payment of all amounts under the loan. In addition, a failure by Green Bank to provide us with the required waiver could also constitute a default under our \$5 million loan with Interstate Battery and allow Interstate Battery to accelerate the payment of all amounts thereunder.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet financing arrangements.

Item 3. Quantitative and Qualitative Disclosures about Market Risks

We do not enter into financial instruments for trading or speculative purpose. Our primary exposure to market risk is interest expense related to our debt with Green Bank. The interest rate on this loan adjusts on the first day of each calendar quarter equal to the greater of six percent (6%) or two percent (2%) per annum above the minimum prime lending rate charged by large U.S. money center commercial banks as published by the Wall Street Journal. We experience market risk with respect to the volatility of lead commodity prices. The purchase price of our primary raw material, used lead acid batteries (used LABs), and the sales price of our lead-based finished products are based on commodity pricing. Due to the relatively short turnaround between the purchase of used LABs and the sale of our finished goods, we believe the risk is minimized.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our president and vice president finance, has evaluated the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15 of the Securities Exchange Act of 1934. Based on this evaluation, management concluded that our disclosure controls and procedures were effective as of September 30, 2018.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the three-month period ended September 30, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

Beginning on December 15, 2017, three purported class action lawsuits were filed in the United Stated District Court for the Northern District California against us, Stephen Clarke, Thomas Murphy and Mark Weinswig. On March 23, 2018, the cases were consolidated under the caption In Re: Aqua Metals, Inc. Securities Litigation Case No 3:17-cv-07142. . On May 23, 2018, the Court appointed lead plaintiffs and approved counsel for the lead plaintiffs. On July 20, 2018, the lead plaintiffs filed a consolidated amended complaint ("Amended Complaint"), on behalf of a class of persons who purchased our securities between May 19, 2016 and November 9, 2017, against us. Stephen Clarke, Thomas Murphy and Selwyn Mould. The Amended Complaint alleges the defendants made false and misleading statements concerning our lead recycling operations in violation of Section 10(b) of the Securities Exchange Act of 1934 ("Exchange Act") and Rule 10b-5 promulgated thereunder and seeks to hold the individual defendants as control persons pursuant to Section 20(a) of the Exchange Act. The Amended Complaint also alleges a violation of Section 11 of the Securities Act of 1933 ("Securities Act") based on alleged false and misleading statements concerning our lead recycling operations contained in, or incorporated by reference in, our Registration Statement on Form S-3 filed in connection with our November 2016 public offering. That claim is asserted on behalf of a class of persons who purchased shares pursuant to, or that are traceable to, that Registration Statement. The Amended Complaint seeks to hold the individual defendants liable as control persons pursuant to Section 15 of the Securities Act. The Amended Complaint seeks unspecified damages and plaintiffs' attorneys' fees and costs. On September 18, 2018, the defendants filed a motion to dismiss the Amended Complaint in its entirety. The plaintiff has not yet filed its opposition to the motion. We deny that the claims in the Amended Complaint have any merit and we intend to vigorously defend the action.

Beginning on February 2, 2018, five purported shareholder derivative actions were filed in the United States District Court for the District of Delaware against us and certain of our current and former executive officers and directors, Stephen R. Clarke, Selwyn Mould, Thomas Murphy, Mark Weinswig, Vincent DiVito, Mark Slade and Mark Stevenson. On May 3, 2018, the cases were consolidated under the caption *In re Aqua Metals, Inc. Stockholder Derivative Litigation*, Case No. 1:18-cv-00201-LPS (D. Del.). The complaints were filed by persons claiming to be stockholders of Aqua Metals and generally allege that certain of our officers and directors breached their fiduciary duties to us by violating the federal securities laws and exposing us to possible financial liability. The complaints seek unspecified damages and plaintiffs' attorneys' fees and costs. The parties have entered into a stipulation staying the action until 30 days after a decision on our motion to dismiss the Amended Complaint in the class action described above. We deny that the claims in the shareholder derivative action have any merit and we intend to vigorously defend the action.

We are not party to any other legal proceedings. We may, from time to time, be party to litigation and subject to claims incident to the ordinary course of business. As our growth continues, we may become party to an increasing number of litigation matters and claims. The outcome of litigation and claims cannot be predicted with certainty, and the resolution of any future matters could materially affect our future financial position, results of operations or cash flows.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. Before purchasing our common stock, you should read and consider carefully the following risk factors as well as all other information contained in this report, including our consolidated financial statements and the related notes. Each of these risk factors, either alone or taken together, could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our common stock. There may be additional risks that we do not presently know of or that we currently believe are immaterial, which could also impair our business and financial position. If any of the events described below were to occur, our financial condition, our ability to access capital resources, our results of operations and/or our future growth prospects could be materially and adversely affected and the market price of our common stock could decline. As a result, you could lose some or all of any investment you may make in our common stock.

Risks Relating to Our Business

Since we have a limited operating history and have only recently commenced revenue producing operations, it is difficult for potential investors to evaluate our business. We formed our corporation in June 2014 and only commenced revenue producing operations in the first quarter of 2017. From inception through September 30, 2018, we generated a total of \$4.6 million of revenue, all of which was derived from the sale of lead compounds, plastics and a minor amount of lead bullion (including Aqua Refined lead). To date, our operations have consisted of the development and testing of our AquaRefining process, the construction of our initial LAB recycling facility at TRIC, the continuing development of our LAB recycling operations at TRIC and limited revenue producing operations as we bring those LAB recycling operations online. Our limited operating history makes it difficult for potential investors to evaluate our technology or prospective operations. As an early stage company, we are subject to all the risks inherent in the initial organization, financing, expenditures, complications and delays in a new business, including, without limitation:

- the timing and success of our plan of commercialization and the fact that we continue to experience delays in completing our LAB recycling operations at TRIC;
- our ability to bring modules online and ramp up production on a commercial scale and the fact that we continue to experience performance and production issues that prevent us from running our initial modules on a continuous basis;
- our ability to profitably operate our AquaRefining process on a commercial scale;
- our ability to realize the expected benefits of our strategic partnership with Johnson Controls;
- our ability to procure LABs in sufficient quantities at competitive prices; and
- our ability to receive proper certification from and meet the requirements of our customers regarding the purity of our AquaRefined lead.

Investors should evaluate an investment in us in light of the uncertainties encountered by developing companies in a competitive environment. There can be no assurance that our efforts will be successful or that we will ultimately be able to attain profitability.

Our business is dependent upon on our successful implementation of novel and unproven technologies and processes and there can be no assurance that we will be able to implement such technologies and processes in a manner that supports the successful commercial roll-out of our business model. While much of the technology and processes involved in our lead recycling operations are widely used and proven, the AquaRefining component of our lead recycling operations is largely novel and unproven. While we have shown that our proprietary technology can produce AquaRefined lead on a small scale, we have only recently completed, and put into limited operation, the processes that we believe will support the production of AquaRefined lead on a commercial scale. Further, as we complete our AquaRefining production line, we continue to encounter unforeseen complications that have delayed the installation and commissioning of our AquaRefining modules and the integration of our AquaRefining process with the traditional lead recycling operations. For example, we most recently had to develop special processes and equipment to deal with an unexpected development in the form of "sticky lead," whereby the AquaRefined lead produced by our electrolyzers stuck to the AquaRefining modules' exit chute and failed to exit without manual intervention. As of the date of this report, we have substantially completed the retrofit of all 16 modules for this particular issue and have begun to bring modules into commercial operation, however we continue to experience performance and production issues that prevent us from running the initial four modules on a continuous basis. There can be no assurance that we will be able to overcome these production and performance issues in a timely manner or that we will not encounter additional unforeseen complications that will cause further delays in our planned commercial roll-out of all 16 AquaRefining modules installed at TRIC and to ramp up the production of AquaRefined lead.

We will need additional financing to execute our business plan and fund operations, which additional financing may not be available on reasonable terms or at all. As of September 30, 2018, we had total cash of \$28.8 million and working capital of \$23.6 million. As of the date of this report, we believe that we have working capital sufficient to fund our current plan of operations at TRIC over the next twelve months. However, we will require additional capital in order to increase production of AquaRefined lead at TRIC beyond that planned for 16 modules, to work with Johnson Controls on equipment integration and licensing to third parties, to fund working capital needs related to the ramp-up of our operations and to fund our continued losses from operations until such time as we are able to achieve positive cash flow from operations. There can be no assurance that we will be able to acquire the necessary funding on commercially reasonable terms or at all. There can also be no assurance we will be able to conclude the proposed development agreement with Johnson Controls. We intend to seek additional funds through various financing sources, including the sale of our equity and debt securities, licensing fees for our technology, joint ventures with capital partners and/or project financing of our recycling facilities. However, there can be no assurance that such funds will be available on commercially reasonable terms, if at all. If such funding is not available on satisfactory terms, we may be unable to further pursue our business plan and we may be unable to continue operations, in which case you may lose your entire investment.

We are subject to restrictive debt covenants that may limit our ability to run our business, finance our capital needs and pursue business opportunities and activities. As of the date of this report, we are indebted to Green Bank for approximately \$9.6 million and Interstate Battery for approximately \$6.5 million, all of which is secured by liens on substantially all of our assets. The credit agreements governing such indebtedness contain covenants that limit our ability to take certain actions. These covenants could limit our ability to finance our future operations and capital needs and our ability to pursue business opportunities and activities that may be in our interest. If we breach any of these covenants, the debt holder could declare a default under the credit agreement, in which case all of the indebtedness may then become immediately due and payable. In addition, any default under one credit agreement could lead to an acceleration of debt under the other credit agreement pursuant to cross-acceleration or cross-default provisions. If the debt under either credit agreement is accelerated, we may not have, or be able to obtain, sufficient funds to make these accelerated payments. In addition, since all of the indebtedness to Green Bank and Interstate Battery is secured by substantially all of our assets, a default under either credit facility could enable the debtholder to foreclose on its security interest and attempt to seize our assets. The affirmative and negative debt covenants could materially adversely impact our ability to operate and finance our business. In addition, our default under any of these covenants could materially adversely impact our ability to operate and finance our business. In addition, our default under any of these covenants could materially adversely impact our ability to operate and finance our business. In addition, our default under any of these covenants could materially adversely impact our ability to operate and finance our business. In addition, our default under any of

In the event of the acceleration of either the Interstate Battery or Green Bank loans, we will need additional financing to satisfy our obligations under the loans, which additional financing may not be available on reasonable terms or at all. As noted above, as of the date of this report, we are indebted to Green Bank for approximately \$9.6 million and Interstate Battery for approximately \$6.5 million. The credit agreements governing such indebtedness contain various affirmative and negative covenants and if we breach any of these covenants, the debt holder could declare a default under the credit agreement, in which case all of the indebtedness may then become immediately due and payable. In addition, any default under one credit agreement could lead to an acceleration of debt under the other credit agreement pursuant to cross-acceleration or cross-default provisions. If the debt under either credit agreement is accelerated, we may not have sufficient funds to make the accelerated payments, in which case we would be required to seek additional funds through various financing sources, most likely through the sale of our equity or debt securities. However, there can be no assurance that such funds will be available on commercially reasonable terms, if at all. Further, any sale of our equity or equity-linked securities will result in additional dilution to our stockholders.

Our outstanding debt may make it difficult for us obtain additional financing using our future operating cash flow. We currently have a substantial amount of indebtedness, including approximately \$9.6 million owed to Green Bank and approximately \$6.5 million owed to Interstate Battery as of the date of this report. Such indebtedness could limit our ability to borrow additional funds to fund operations or expansion or increase the cost of any such borrowing, or both. Our inability to conduct additional debt financing could:

- limit our flexibility in developing our business operations and planning for, or reacting to, changes in our business;
- increase our vulnerability to, and reduce our flexibility to respond to, general adverse economic and industry conditions; and
- place us at a competitive disadvantage as compared to our competitors that are not as highly leveraged.

Any of these or other consequences or events could have a material adverse effect on our ability to finance our business and our operations.

Our business model is new and has not been proven by us or anyone else. We are engaged in the business of producing recycled lead through a novel and unproven technology. While the production of recycled lead is an established business, to date all recycled lead in commercial quantities other than by way of smelting processes. To our knowledge, no one has successfully produced recycled lead in commercial quantities other than by way of smelting. In addition, our lead recycling production line at TRIC is the first-of-its-kind and neither we nor anyone else has ever successfully built a production line that commercially recycles LABs without smelting. While we have commenced limited lead recycling operations at our TRIC facility, through March 31, 2018 all of our revenues have been derived from the sale of lead compounds and plastics. We began shipments of lead bullion, which included AquaRefined lead in April 2018. In addition to the general risks associated with a novel and unproven technology, our business model is subject to a number of related risks, including:

- our ability to acquire sufficient quantities of used LABs at competitive prices;
- our ability to produce AquaRefined lead that is priced competitively with lead produced by traditional smelting;
- our ability to produce AquaRefined lead on a commercial scale and at an adequate gross profit; and
- our ability to sell our AquaRefined lead at prices and in quantities that provide an adequate net profit from operations.

Further, there can be no assurance that we will be able to produce AquaRefined lead in commercial quantities at a cost of production that will provide us with an adequate profit margin. The uniqueness of our AquaRefining process and our production line at TRIC presents potential risks associated with the development of a business model that is untried and unproven. As of the date of this report, we have begun to bring our AquaRefining modules into commercial operation, however we continue to experience performance and production issues. There can be no assurance that we will be able to overcome these production and performance issues in a timely manner or that we will not encounter additional unforeseen complications that will cause further delays in our planned commercial roll-out of our AquaRefining modules and the ramp up the production of AquaRefined lead.

Certain industry participants may have the ability to restrict our access to used LABs and otherwise focus significant competitive pressure on us. We believe that our primary competition will come from operators of existing smelters and other parties invested in the existing supply chain for smelting, both of which may resist the change presented by our AquaRefining process. Competition from such incumbents may come in the form of restricted access to used LABs. We believe that LAB manufacturers who also maintain their own smelting operations control a significant part of the market for used LABs. We will require access to used LABs at market prices in order to carry out our business plan. If those LAB manufacturers and others involved in the reverse supply chain for used LABs attempt to restrict our access to used LABs, that may adversely affect our prospects and future growth. There can be no assurance that we will be able to effectively withstand the pressures applied by our competition.

Even if we are successful in recycling lead using our processes, there can be no assurance that the AquaRefined lead will meet the certification and purity requirements of our potential customers. A key component of our business plan is to produce recycled lead through our AquaRefining process of the highest purity (at least 99.99% pure lead), which we refer to as AquaRefined lead. We believe that our AquaRefined lead will provide us with the revenue premium over the market price of lead on the London Metal Exchange, or LME, and, more importantly, our ability to produce AquaRefined lead will be vital to confirming the efficacy and relevancy of our proprietary technology. Our customers will require that our AquaRefined lead meet certain minimum purity standards and, in all likelihood, require independent assays to confirm the lead's purity. As of the date of this report, we have produced limited quantities of AquaRefined lead in commercial quantities and there can be no assurance that we will be able to do so or, if we are able to produce AquaRefined lead in commercial quantities, that such lead will meet the required purity standards of our customers. If we are unable to commercially produce AquaRefined lead that meets the purity standards established by our customers, our entire business plan may be invalidated and you may suffer the loss of your entire investment.

While we have been successful in producing AquaRefined lead in small volumes, there can be no assurance that we will be able to replicate the process, along with all of the expected economic advantages, on a large commercial scale either for us or our prospective licensees. As of the date of this report, our commercial operations have primarily involved the production of lead compounds and plastics from recycled LABs and we have only recently commenced the limited production of lead bullion, which included AquaRefined lead in April 2018. While we believe that our development, testing and limited production to date has validated the concept of our AquaRefining process, the limited nature of our operations to date are not sufficient to confirm the economic returns on our production of recycled lead. There can be no assurance that the commencement of commercial production of AquaRefined lead at our TRIC facility will not incur unexpected costs or setbacks that might restrict the desired scale of our intended operations or that we will be to produce AquaRefined lead in commercial quantities at a cost of production that will provide us with an adequate profit margin.

We have completed the construction of our initial LAB recycling facility at TRIC, however we have been delayed in the completion of our lead recycling operations at TRIC and we may encounter further delays. We completed the construction of our initial LAB recycling facility at TRIC in August 2016 and commenced the limited production of recycled lead in the first quarter of 2017. However, as of the date of this report, our commercial operations have primarily involved the production of lead compounds and plastics from recycled LABs and we only recently commenced the limited commercial production of AquaRefined lead. As of December 2017, we had installed 16 AquaRefining modules. However, we encountered an issue which required the retrofitting of all 16 modules. As of the date of this report, we have substantially completed the retrofit of all 16 modules for this particular issue and have brought the first four modules into commercial operation, however we continue to experience performance and production issues that prevent us from running the initial four modules on a continuous basis. There can be no assurance that we will be able to overcome these production and performance issues in a timely manner. In addition, since our lead recycling production line at TRIC is the first-of-its-kind, neither we nor anyone else has ever built a facility of this nature and there can be no assurance that we will not experience additional operational delays and issues, including significant downtime from time to time, as we progress into the commercial production of AquaRefined lead. There can be no assurance that we will not incur unexpected costs or hurdles that might restrict the desired scale of our intended operations or negatively impact our projected gross profit margin.

Our business may be negatively affected by labor issues and higher labor costs. Our ability to maintain our workforce depends on our ability to attract and retain new and existing employees. As of the date of this report, none of our employees are covered by collective bargaining agreements and we consider are labor relations to be acceptable. However, we could experience workforce dissatisfaction which could trigger bargaining issues, employment discrimination liability issues as well as wage and benefit consequences, especially during critical operation periods. We could also experience a work stoppage or other disputes which could disrupt our operations and could harm our operating results. In addition, legislation or changes in regulations could result in labor shortages and higher labor costs. There can be no assurance that we may not experience labor issues that negatively impact our operations or results of operations.

Our intellectual property rights may not be adequate to protect our business. As of the date of this report, we have secured one US patent (US 9837689) and international patents in Korea (Korea Patent No. 10-1739414), Japan (Japan Patent No. 6173595), China (CN 105981212), Australia (Australia Patent No. AU2014353227), Canada (CA 2930945), African Intellectual Property Organization (OA 17808), Mexico (MX357027), and South Africa (ZA 2016.04083). We also have received further allowances for a patent in Australia, Europe, Ukraine, and Korea, and have further patent applications pending in the United States and numerous corresponding patent applications pending in 20 additional jurisdictions relating to certain elements of the technology underlying our AquaRefining process and related apparatus and chemical formulations. However, no assurances can be given that any patent issued, or any patents issued on our current and any future patent applications, will be sufficiently broad to adequately protect our technology. In addition, we cannot assure you that any patents issued now or in the future will not be challenged, invalidated, or circumvented.

Even patents issued to us may not stop a competitor from illegally using our patented processes and materials. In such event, we would incur substantial costs and expenses, including lost time of management in addressing and litigating, if necessary, such matters. Additionally, we rely upon a combination of trade secret laws and nondisclosure agreements with third parties and employees having access to confidential information or receiving unpatented proprietary know-how, trade secrets and technology to protect our proprietary rights and technology. These laws and agreements provide only limited protection. We can give no assurance that these measures will adequately protect us from misappropriation of proprietary information.

Our processes may infringe on the intellectual property rights of others, which could lead to costly disputes or disruptions. The applied science industry is characterized by frequent allegations of intellectual property infringement. Though we do not expect to be subject to any of these allegations, any allegation of infringement could be time consuming and expensive to defend or resolve, result in substantial diversion of management resources, cause suspension of operations or force us to enter into royalty, license, or other agreements rather than dispute the merits of such allegation. If patent holders or other holders of intellectual property initiate legal proceedings, we may be forced into protracted and costly litigation. We may not be successful in defending such litigation and may not be able to procure any required royalty or license agreements on acceptable terms or at all.

Our business strategy includes licensing arrangements and entering into joint ventures and strategic alliances, however as of the date of this report we have no such agreements in place and there can be no assurance we will be able to do so. Failure to successfully integrate such licensing arrangements, joint ventures, or strategic alliances into our operations could adversely affect our business. We propose to commercially exploit our AquaRefining process, in part, by licensing our technology to third parties and entering into joint ventures and strategic relationships with parties involved in the manufacture and recycling of LABs, including Johnson Controls, among others. However, as of the date of this report, we have not entered into any such licensing, joint venture or strategic alliance agreements, apart from our equipment supply agreement with Johnson Controls, and there can be no assurance that we will be able to do so on terms that benefit us, if at all. In addition, licensing programs, joint ventures and strategic alliances may involve significant other risks and uncertainties, including distraction of management's attention away from normal business operations, insufficient revenue generation to offset liabilities assumed and expenses associated with the transaction, and unidentified issues not discovered in our due diligence process, such as product quality, technology issues and legal contingencies. In addition, we may be unable to effectively integrate any such programs and ventures into our operations. Our operating results could be adversely affected by any problems arising during or from any licenses, joint ventures or strategic alliances.

There can be no assurance that we will be able to negotiate our key agreement with Johnson Controls on commercially reasonable terms, or at all. In February 2017, we entered into a series of agreements with Johnson Controls, including an equipment supply agreement pursuant to which, among other things, we agreed to work with Johnson Controls on the development of a program for the conversion of Johnson Controls and certain strategic partners of Johnson Controls' existing lead smelters throughout North America, China and Europe to a lead recycling process utilizing our AquaRefining technology and equipment, know-how and services. The equipment supply agreement discusses the development of the conversion program in general terms and contemplates that the parties will enter into a definitive development program agreement that is based on the general terms set forth in the equipment supply agreed not to license our AquaRefining technology and equipment supply agreed not to license our AquaRefining technology and equipment to third parties in the aforementioned regions until such time as we and Johnson Controls have agreed on certain matters relating to the initial conversion of a Johnson Controls facility. Johnson Controls and we have agreed to use good faith, commercial best-efforts to conclude the discussion and negotiation of the development program agreement may be terminated by either party upon 60 days' prior written notice if the parties have not entered into the development program agreement by June 30, 2019. There can be no assurance that we will be able to negotiate and conclude a definitive development program agreement with Johnson Controls on commercially reasonable terms, or at all.

We are dependent on a limited number of suppliers of certain materials used in our AquaRefining process and our inability to obtain these materials as and when needed could cause a material disruption in our operations. Our AquaRefining process involves a significant number of elements, chemicals, solvents and other materials, in addition to used LABs. There are a limited number of suppliers of certain materials used in our AquaRefining process and we have no agreements in place for our supply of such materials. Our ability to conduct our AquaRefining process on a commercial scale will depend significantly on obtaining timely and adequate supply of these materials on competitive terms. Our inability to source these materials on a timely and cost-efficient manner could interrupt our operations, significantly limit our revenue sales and increase our costs. This factor could also impair our ability to meet our commitments to supply our customers. Our inability to obtain these materials as and when needed could cause a material disruption in our operations.

If we are unable to manage future expansion effectively, our business, operations and financial condition may suffer significantly, resulting in decreased productivity. If our AquaRefining process proves to be commercially viable, growth and expansion activities could place a significant strain on our managerial, administrative, technical, operational and financial resources. Our organization, procedures and management may not be adequate to fully support the expansion of our operations or the efficient execution of our business strategy. If we are unable to manage future expansion effectively, our business, operations and financial condition may suffer significantly, resulting in decreased productivity.

We may experience significant fluctuations in raw material prices and the price of our principal product, either of which could have a material adverse effect on our liquidity, growth prospects and results of operations. Used LABs are our primary raw material and we believe that in recent years the cost of used LABs has been volatile at times. In addition, we believe that the cost of used LABs can be seasonal, with prices trending lower in the winter months (as automobile owners increase their purchase of new LABs, thereby putting a greater number of used LABs on the market) and trend higher in the spring (as the purchase of new LABs, and supply of used LABs, decreases). Our principal product, recycled lead, has also experienced price volatility from time to time as well. For example, the market price of lead on the LME during 2017 ranged from approximately \$2,000 to \$2,600 per tonne. While we intend to pursue supply and tolling arrangements as appropriate to offset any price volatility, the volatile nature of prices for used LABs and recycled lead could have an adverse impact on our liquidity, growth prospects and results of operations.

Global economic conditions could negatively affect our prospects for growth and operating results. Our prospects for growth and operating results will be directly affected by the general global economic conditions of the industries in which our suppliers, partners and customer groups operate. We believe that the market price of our principal product, recycled lead, is relatively volatile and reacts to general global economic conditions. Lead prices decreased from \$2,139 per tonne on May 5, 2015 to a low of \$1,554 per tonne on November 23, 2015 because of fluctuations in the market. A month later, the price per tonne increased back up to \$1,801 per tonne; the price per tonne was \$2,005 on September 28, 2018. Our business will be highly dependent on the economic and market conditions in each of the geographic areas in which we operate. These conditions affect our business by reducing the demand for LABs and decreasing the price of lead in times of economic down turn and increasing the price of used LABs in times of increasing demand of LABs and recycled lead. There can be no assurance that global economic conditions will not negatively impact our liquidity, growth prospects and results of operations.

We are subject to the risks of conducting business outside the United States. A part of our strategy involves our pursuit of growth opportunities in certain international market locations. We intend to pursue licensing or joint venture arrangements with local partners who will be primarily responsible for the day-to-day operations. Any expansion outside of the US will require significant management attention and financial resources to successfully develop and operate any such facilities, including the sales, supply and support channels, and we cannot assure you that we will be successful or that our expenditures in this effort will not exceed the amount of any resulting revenues. Our international operations expose us to risks and challenges that we would otherwise not face if we conducted our business only in the United States, such as:

- increased cost of enforcing our intellectual property rights;
- heightened price sensitivities from customers in emerging markets;
- our ability to establish or contract for local manufacturing, support and service functions;
- localization of our LABs and components, including translation into foreign languages and the associated expenses;

- compliance with multiple, conflicting and changing governmental laws and regulations;
- foreign currency fluctuations;
- laws favoring local competitors;
- weaker legal protections of contract terms, enforcement on collection of receivables and intellectual property rights and mechanisms for enforcing those rights;
- market disruptions created by public health crises in regions outside the United States;
- difficulties in staffing and managing foreign operations, including challenges presented by relationships with workers' councils and labor unions;
- issues related to differences in cultures and practices; and
- changing regional economic, political and regulatory conditions.

U.S. Government regulation and environmental, health and safety concerns may adversely affect our business. Our operations in the United States will be subject to the Federal, State and local environmental, health and safety laws applicable to the reclamation of lead acid batteries. Our facilities will have to obtain environmental permits or approvals to operate, including those associated with air emissions, water discharges, and waste management and storage. We may face opposition from local residents or public interest groups to the installation and operation of our facilities. In addition to permitting requirements, our operations are subject to environmental health, safety and transportation laws and regulations that govern the management of and exposure to hazardous materials such as the lead and acids involved in battery reclamation. These include hazard communication and other occupational safety requirements for employees, which may mandate industrial hygiene monitoring of employees for potential exposure to lead. Failure to comply with these requirements could subject our business to significant penalties (civil or criminal) and other sanctions that could adversely affect our business.

In the event we are unable to present and operate our AquaRefining process and operations as safe and environmentally responsible, we may face opposition from local governments, residents or public interest groups to the installation and operation of our facilities.

The development of new AquaRefining facilities by us or our partners or licensees, and the expansion of our operations at TRIC, will depend on our ability to acquire necessary permits and approvals, of which there can be no assurance. As noted above, our AquaRefining facilities will have to obtain environmental permits or approvals to operate, including those associated with air emissions, water discharges, and waste management and storage. In addition, we expect that our planned expansion of AquaRefining operations at TRIC will require additional permitting and approvals. Failure to secure (or significant delays in securing) the necessary permits and approvals could prevent us and our partners and licensees from pursuing additional AquaRefining facilities or expanding operations at TRIC, and otherwise adversely affect our business, financial results and growth prospects. Further, the loss of any necessary permit or approval could result in the closure of an AquaRefining facility and the loss of our investment associated with such facility.



Our business involves the handling of hazardous materials and we may become subject to significant fines and other liabilities in the event we mishandle those materials. The nature of our operations involves risks, including the potential for exposure to hazardous materials such as lead, that could result in personal injury and property damage claims from third parties, including employees and neighbors, which claims could result in significant costs or other environmental liability. Our operations also pose a risk of releases of hazardous substances, such as lead or acids, into the environment, which can result in liabilities for the removal or remediation of such hazardous substances from the properties at which they have been released, liabilities which can be imposed regardless of fault, and our business could be held liable for the entire cost of cleanup even if we were only partially responsible. We are also subject to the possibility that we may receive notices of potential liability in connection with materials that were sent to third-party recycling, treatment, and/or disposal facilities under the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), and comparable state statutes, which impose liability for investigation and remediation of contamination without regard to fault or the legality of the conduct that contributed to the contamination, and for damages to natural resources. Liability under CERCLA is retroactive, and, under certain circumstances, liability for the entire cost of a cleanup can be imposed on any responsible party. Any such liability could result in judgments or settlements that restrict our operations in a manner that materially adversely effects our operations and could result in fines, penalties or awards that could materially impair our financial condition and even threaten our continued operation as a going concern.

We will be subject to foreign government regulation and environmental, health and safety concerns that may adversely affect our business. As our business expands outside of the United States, our operations will be subject to the environmental, health and safety laws of the countries where we do business, including permitting and compliance requirements that address the similar risks as do the laws in the United States, as well as international legal requirements such as those applicable to the transportation of hazardous materials. Depending on the countries in which we are interested in expanding our business, such as Mexico and China, the relevant environmental regulatory and enforcement frameworks are in flux and subject to change. Compliance with these requirements will cause our business to incur costs, and failure to comply with these requirements could adversely affect our business.

In the event we are unable to present and operate our AquaRefining process and operations as safe and environmentally responsible, we may face opposition from local governments, residents or public interest groups to the installation and operation of our facilities.

Risks Related to Owning Our Common Stock

A securities class action lawsuit and shareholder derivative lawsuit are pending against us and could have a material adverse effect on our business, results of operations and financial condition. A putative consolidated class action lawsuit and shareholder derivative lawsuit are pending against us and certain of our directors and officers. These lawsuits may divert financial and management resources that would otherwise be used to benefit our operations. Although we deny the material allegations in the lawsuits and intend to defend ourselves vigorously, defending the lawsuits could result in substantial costs. No assurances can be given that the results of these matters will be favorable to us. An adverse resolution of any of these lawsuits could have a material adverse effect on our results of operations and financial condition. In addition, we may be the target of securities-related litigation in the future, both related and unrelated to the existing class action and shareholder derivative lawsuits. Such litigation could divert our management's attention and resources, result in substantial costs, and have an adverse effect on our business, results of operations and financial condition.

We maintain director and officer insurance that we regard as reasonably adequate to protect us from potential claims; however, we are responsible for meeting certain deductibles under the policies and, in any event, we cannot assure you that the insurance coverage will adequately protect us from claims made. Further, as a result of the pending litigation the costs of insurance may increase and the availability of coverage may decrease. As a result, we may not be able to maintain our current levels of insurance at a reasonable cost, or at all, which might make it more difficult to attract qualified candidates to serve as executive officers or directors.

Our common stock is thinly traded and our share price has been volatile. Our common stock has traded on the Nasdaq Capital Market, under the symbol "AQMS", since July 31, 2015. Since that date, our common stock has at times been relatively thinly traded and subject to price volatility. There can be no assurance that we will be able to successfully maintain a liquid market for our common shares. The stock market in general, and early stage public companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of such companies. If we are unable to develop and maintain a liquid market for our common shares, you may not be able to sell your common shares at prices you consider to be fair or at times that are convenient for you, or at all. In addition, following periods of volatility in the market price of a company's securities, litigation has often been brought against that company and we may become the target of litigation as a result of price volatility. Litigation could result in substantial costs and divert our management's attention and resources from our business. This could have a material adverse effect on our business, results of operations and financial condition.

We are an "emerging growth company" under the JOBS Act of 2012 and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors. We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012 ("JOBS Act"), and we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies" including, but not limited to:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act;
- reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements;
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments; and
- extended transition periods available for complying with new or revised accounting standards.

We have chosen to "opt out" of the extended transition periods available for complying with new or revised accounting standards, but we intend to take advantage of all of the other benefits available under the JOBS Act, including the exemptions discussed above. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

We will remain an "emerging growth company until 2020, although we will lose that status sooner if our revenues exceed \$1.07 billion, if we issue more than \$1.07 billion in non-convertible debt in a three-year period, or if the market value of our common stock that is held by non-affiliates exceeds \$700 million as of any June 30.

Our status as an "emerging growth company" under the JOBS Act may make it more difficult to raise capital as and when we need it. Because of the exemptions from various reporting requirements provided to us as an "emerging growth company," we may be less attractive to investors and it may be difficult for us to raise additional capital as and when we need it. Investors may be unable to compare our business with other companies in our industry if they believe that our reporting is not as transparent as other companies in our industry. If we are unable to raise additional capital as and when we need it, our financial condition and results of operations may be materially and adversely affected.

We have not paid dividends in the past and have no plans to pay dividends. We plan to reinvest all of our earnings, to the extent we have earnings, in order to develop our recycling centers and cover operating costs and to otherwise become and remain competitive. We do not plan to pay any cash dividends with respect to our securities in the foreseeable future. We cannot assure you that we would, at any time, generate sufficient surplus cash that would be available for distribution to the holders of our common stock as a dividend. Therefore, you should not expect to receive cash dividends on our common stock.

Shares eligible for future sale may adversely affect the market for our common stock. Of the 38,932,437 shares of our common stock outstanding as of the date of this report, approximately 35,092,396 shares are held by "non-affiliates" and are freely tradable without restriction pursuant to Rule 144. In addition, in August 2016, we filed with the SEC a Registration Statement on Form S-3 for purposes of registering the resale of 3,711,872 shares of restricted common stock sold to Interstate Battery in May 2016, including 3,009,625 shares of common stock issuable to Interstate Battery upon exercise of its warrants and conversion of its convertible note, and in February 2017, we filed with the SEC a Registration Statement on Form S-3 for purposes of registering the resale of the 939,005 shares of restricted common stock we sold to Johnson Controls in February 2017. Both registration statements were declared effective by the SEC and the shares registered thereunder are eligible for sale without restriction. Any substantial sale of our common stock pursuant to Rule 144 or pursuant to any resale prospectus may have a material adverse effect on the market price of our common stock.

Our charter documents and Delaware law may inhibit a takeover that stockholders consider favorable. Provisions of our certificate of incorporation and bylaws and applicable provisions of Delaware law may delay or discourage transactions involving an actual or potential change in control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. The provisions in our certificate of incorporation and bylaws:

- limit who may call stockholder meetings;
- do not permit stockholders to act by written consent;
- do not provide for cumulative voting rights; and
- provide that all vacancies may be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum.

In addition, Section 203 of the Delaware General Corporation Law may limit our ability to engage in any business combination with a person who beneficially owns 15% or more of our outstanding voting stock unless certain conditions are satisfied. This restriction lasts for a period of three years following the share acquisition. These provisions may have the effect of entrenching our management team and may deprive you of the opportunity to sell your shares to potential acquirers at a premium over prevailing prices. This potential inability to obtain a control premium could reduce the price of our common stock.

Our bylaws designate the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with the Company. Our bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim against us or any our directors, officers or other employees arising pursuant to any provision of the Delaware General Corporation Law or our certificate of incorporation or bylaws, or (iv) any action asserting a claim against us or any our directors, officers or other employees governed by the internal affairs doctrine. This forum selection provision in our bylaws may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or any our directors, officers or other employees.



Item 6. Exhibits

Exhibit No.	Description	Method of Filing
3.1	First Amended and Restated Certificate of Incorporation of the Registrant	Incorporated by reference from the Registrant's Registration Statement on Form S-1 filed on July 22, 2015.
3.2	Second Amended and Restated Bylaws of the Registrant	Incorporated by reference from the Registrant's Current Report on Form 8-K filed on September 27. 2018.
3.3	<u>Certificate of Amendment to First Amended and Restated Certificate of</u> <u>Incorporation of the Registrant</u>	Incorporated by reference from the Registrant's Registration Statement on Form S-1 filed on June 9, 2015.
10.1	Amendment No. 1 to Omnibus Amendment Agreement dated August 6, 2018 between the Registrant and Interstate Batteries Recycling, LLC	Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q filed on August 8, 2018
31.1	Certifications Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed electronically herewith
31.2	Certifications Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed electronically herewith
32.1	<u>Certification of Principal Executive Officer and Principal Financial</u> <u>Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18</u> <u>U.S.C. Section 1350).</u>	Filed electronically herewith
101.INS	XBRL Instance Document	Filed electronically herewith
101.SCH	XBRL Taxonomy Extension Schema Document	Filed electronically herewith
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	Filed electronically herewith
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	Filed electronically herewith
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	Filed electronically herewith
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	Filed electronically herewith
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SIGNATURES

In accordance with the requirements of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AQUA METALS, INC.

Date: November 7, 2018	By: /s/ Stephen Cotton Stephen Cotton, President (Principal Executive Officer)	
Date: November 7, 2018	By: <u>/s/ Kathleen Dotson</u> Kathleen Dotson, Vice President Finance (Principal Financial Officer)	
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CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

Section 302 Certification

I, Stephen Cotton, certify that:

- 1) I have reviewed this quarterly report on Form 10-Q of Aqua Metals, Inc.;
- Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3) Based on my knowledge, the financial statements and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
- a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
- b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
- c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
- d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fiscal quarter presented in this report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial data information; and
- b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2018

By: /s/ Stephen Cotton

Stephen Cotton, President (Principal Executive Officer)

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

Section 302 Certification

I, Kathleen Dotson, certify that:

- 1) I have reviewed this quarterly report on Form 10-Q of Aqua Metals, Inc.;
- Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3) Based on my knowledge, the financial statements and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
- a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
- b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles
- c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report based on such evaluation; and
- d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fiscal quarter presented in this report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial data information; and
- b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2018

By: /s/ Kathleen Dotson

Kathleen Dotson Vice President Finance (Principal Financial Officer)

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Aqua Metals, Inc. (the "Company") on Form 10-Q for the quarterly period ended September 30, 2018, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Stephen Cotton, President, and Kathleen Dotson, Vice President Finance, of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- 1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2. The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

By:	/s/ Stephen Cotton
	Stephen Cotton
Title:	President (Principal Executive Officer)

Dated: November 7, 2018

By: /s/ Kathleen Dotson Kathleen Dotson Title: Vice President Finance (Principal Financial Officer) Dated: November 7, 2018

This certification is made solely for the purposes of 18 U.S.C. Section 1350, subject to the knowledge standard contained therein, and not for any other purpose.