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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

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**FORM S-3**  
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

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**Aqua Metals, Inc.**

*(Exact name of registrant as specified in its charter)*

**Delaware**  
*(State of incorporation)*

**47-1169572**  
*(I.R.S. Employer Identification No.)*

**1010 Atlantic Avenue  
Alameda, California 94501  
(510) 479-7635**  
*(Address and telephone number of registrant's principal executive offices)*

**Stephen R. Clarke  
Chief Executive Officer  
Aqua Metals, Inc.  
1010 Atlantic Avenue  
Alameda, California 94501  
(510) 479-7635**  
*(Name, address and telephone number of agent for service)*

*Copy to:*

**Daniel K. Donahue  
Greenberg Traurig, LLP  
3161 Michelson Drive, Suite 1000  
Irvine, California 92612  
(949) 732-6500**

**Approximate date of commencement of proposed sale to the public:**  
From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registrations statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

#### CALCULATION OF REGISTRATION FEE

<b>Title of each class of securities to be registered</b>	<b>Amount to be registered<sup>(1)</sup></b>	<b>Proposed Maximum Offering Price Per Unit<sup>(2)</sup></b>	<b>Proposed Maximum Aggregate Offering Price<sup>(2)</sup></b>	<b>Amount of registration fee</b>
Common Stock, par value \$0.001 per share	939,005 shares	\$ 17.61	\$ 16,535,878.00	\$ 1,916.51

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended, this Registration Statement shall also cover any additional shares of the Registrant's common stock that become issuable by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant's outstanding shares of common stock.
- (2) The proposed maximum offering price per share and the proposed maximum aggregate offering price is estimated solely for purposes of determining the registration fee pursuant to Rule 457(c) under the Securities Act, based on the average high and low prices per share of the common stock as reported on the NASDAQ Capital Market on February 21, 2017.

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**The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission acting pursuant to said Section 8(a), may determine.**

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**The information in this prospectus is not complete and may be changed without notice. The selling stockholders may not sell these securities until the registration statement relating to these securities has been declared effective by the Securities and Exchange Commission. This prospectus is neither an offer to sell nor a solicitation of an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED FEBRUARY 27, 2017**

**PROSPECTUS**

**AQUA METALS, INC.**

**939,005 Shares  
of  
Common Stock Offered by Selling Stockholders**

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The selling stockholders identified in this prospectus may from time to time sell up to 939,005 shares of common stock. These shares were issued in a private placement transaction consummated with a selling stockholder on February 7, 2017. We will not receive any proceeds from the sale, if any, of common stock by any selling stockholder. The selling stockholders will pay any underwriting discounts and commissions and transfer taxes incurred by the selling stockholder in disposing of the shares of common stock.

The selling stockholders may offer these securities in amounts, at prices and on terms determined at the time of offering. The securities may be sold directly to you, through agents, or through underwriters and dealers.

Our common stock is listed on The NASDAQ Capital Market under the symbol "AQMS". On February 21, 2017, the last reported sale price of our common stock on The NASDAQ Capital Market was \$17.81 per share.

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**Investing in these securities involves significant risks. See "Risk Factors" included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before deciding to purchase these securities.**

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**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

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The date of this prospectus is \_\_\_\_\_, 2017

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the “SEC,” utilizing a “shelf” registration process. Under this shelf registration process, the selling stockholders may from time to time sell up to 939,005 shares of our common stock described in this prospectus in one or more secondary offerings.

This prospectus provides you with a general description of the securities the selling stockholders may offer. From time to time, we may provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any accompanying prospectus supplement together with the additional information described under the heading “Where You Can Find More Information” beginning on page 9 of this prospectus.

We have not authorized anyone to provide you with information different from that contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We do not take any responsibility for, and cannot provide any assurance as to the reliability of, any information other than the information contained or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in the accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Unless the context otherwise indicates, references in this prospectus to “we,” “our” and “us” refer, collectively, to Aqua Metals, Inc., a Delaware corporation and its subsidiaries.

## ABOUT AQUA METALS, INC.

We are engaged in the business of recycling lead through a novel, proprietary and patent-pending process that we developed and named “AquaRefining”. Lead is a globally traded commodity with a worldwide market value in excess of \$20 billion. Lead acid batteries, or LABs, are the primary use of all lead produced in the world. Because the chemical properties of lead allow it to be recycled and reused indefinitely, LABs are also the primary source of all lead production. As such, LABs are almost 100% recycled for purposes of capturing the lead contained therein for re-use. We believe that our proprietary AquaRefining process will provide for the recycling of LABs and the production of a pure grade lead with a significantly lower cost of production, and with fewer environmental and regulatory issues, than conventional methods of lead production.

In recent years, many lead mines have become exhausted and recycled lead has become increasingly important to LAB production. Recycled lead surpassed mined lead in the 1990s and now represents more than 50% of the lead content in new LABs. Whether it is produced from lead ore or recycled LABs, lead has historically been produced by smelting. Smelting is a high-temperature, endothermic chemical reduction, making it inefficient, energy intensive and often a highly pollutive process. As a consequence of its environmental and health issues, lead smelting has become increasingly regulated in developed countries. In the US, regulatory non-compliance has forced the closure of large high-capacity lead smelters in Vernon, California, Frisco, Texas and Herculaneum, Missouri over the last three years. Herculaneum was the last remaining primary lead-mine operation (i.e., smelting lead from ore) in the US, though secondary lead smelters that process recycled lead continue to operate in the US. In response, there has been an expansion of LAB smelting capacity in Mexico and other less regulated countries. The resulting transportation of used LABs from where they originate in the US to smelters in Mexico, the Philippines and elsewhere is an increasingly significant logistical and global environmental cost.

AquaRefining uses an aqueous solvent and a novel electro-chemical process to produce pure lead (i.e., higher than 99.99% purity). We believe that AquaRefining can significantly reduce production costs as compared with alternative methods of producing pure lead. This cost reduction is partly because our novel electro-chemical process requires less energy than the endothermic high temperature (1400°C) chemical reduction that is at the core of smelting. It is also partly because our process does not generate toxic high temperature dust and gas, or the lead containing slag and dross that are unavoidable byproducts of smelting, and which require capital and energy intensive processes to meet environmental compliance. We also have the potential to locate multiple smaller recycling facilities in areas closer to the source of used LABs, thereby reducing transport costs and supply chain bottlenecks. AquaRefining is a water-based ambient temperature process. On this basis, we believe that it significantly reduces environmental emissions, health concerns and permitting needs as compared with lead smelting. We believe that the combined advantages offered by AquaRefining represent a potential step change in lead recycling technology, one that can deliver advantages in economics, footprint and logistics while greatly reducing the environmental impact of lead recycling.

The modular nature of AquaRefining makes it possible to start LAB recycling at a much smaller scale than is possible with smelters, thereby significantly reducing the investment risk associated with building a lead production facility. Our plan is to actively explore distributed recycling in the US by establishing our own initial recycling operation near Reno, Nevada. This plan is based on our belief that Reno has become a significant hub of the West Coast's LAB distribution infrastructure and yet is very poorly served by the LAB recycling industry. From our initial recycling facility near Reno, we intend to expand first throughout the US and then overseas. We will seek to own our own recycling facilities but will also evaluate joint ventures, licensing and direct sales.

Our principal executive offices are located at 1010 Atlantic Avenue, Alameda, California 94501, and our telephone number is (510) 479-7635.

## **RISK FACTORS**

Investing in our securities involves significant risks. You should carefully consider the risks and uncertainties described in this prospectus and any accompanying prospectus supplement, including the risk factors in our most recent Annual Report on Form 10-K, any subsequently filed Quarterly Report on Form 10-Q or Current Report on Form 8-K, together with all of the other information appearing in or incorporated by reference into this prospectus and any applicable prospectus supplement, before making an investment decision pursuant to this prospectus and any accompanying prospectus supplement relating to a specific offering.

Our business, financial condition and results of operations could be materially and adversely affected by any or all of these risks or by additional risks and uncertainties not presently known to us or that we currently deem immaterial that may adversely affect us in the future.

### **NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus contains, and any accompanying prospectus supplement will contain, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1993. Also, documents that we incorporate by reference into this prospectus, including documents that we subsequently file with the Commission, will contain forward-looking statements. Forward-looking statements are those that predict or describe future events or trends and that do not relate solely to historical matters. You can generally identify forward-looking statements as statements containing the words "may," "will," "could," "should," "expect," "anticipate," "intend," "estimate," "believe," "project," "plan," "assume" or other similar expressions, or negatives of those expressions, although not all forward-looking statements contain these identifying words. All statements contained or incorporated by reference in this prospectus and any prospectus supplement regarding our business strategy, future operations, projected financial position, potential strategic transactions, proposed participation or casino projects, projected sales growth, estimated future revenues, cash flows and profitability, projected costs, potential outcome of litigation, potential sources of additional capital, future prospects, future economic conditions, the future of our industry and results that might be obtained by pursuing management's current plans and objectives are forward-looking statements.

You should not place undue reliance on our forward-looking statements because the matters they describe are subject to certain risks, uncertainties and assumptions that are difficult to predict. Our forward-looking statements are based on the information currently available to us and speak only as of the date on the cover of this prospectus, the date of any prospectus supplement, or, in the case of forward-looking statements incorporated by reference, the date of the filing that includes the statement. Over time, our actual results, performance or achievements may differ from those expressed or implied by our forward-looking statements, and such difference might be significant and materially adverse to our security holders. Except as required by law, we undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

We have identified some of the important factors that could cause future events to differ from our current expectations and they are described in this prospectus and supplements to this prospectus under the caption "Risk Factors," as well as in our most recent Annual Report on Form 10-K, including under the captions "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in other documents that we may file with the Commission, all of which you should review carefully. Please consider our forward-looking statements in light of those risks as you read this prospectus and any prospectus supplement.

## **USE OF PROCEEDS**

We will not receive any proceeds from the sale of shares of our common stock by the selling stockholders. The selling stockholders will receive all the proceeds from this offering, if any.



## SELLING STOCKHOLDERS

### Tyco International Finance Transaction

On February 7, 2017, we entered into a stock purchase agreement with Tyco International Finance S.A., an indirect wholly-owned subsidiary of Johnson Controls International plc (“Tyco International”), that provided for the sale of 939,005 shares of our common stock at a price of \$11.33 per share for the gross proceeds of approximately \$10,638,926.

The stock purchase agreement includes customary representations, warranties, and covenants of Tyco International and us, and an indemnity from us in favor of Tyco International. In connection with the transaction, we entered into an investor rights agreement, dated February 7, 2017, with Tyco International, pursuant to which we agreed to register for resale by Tyco International the shares of common stock purchased by Tyco International. The investor rights agreement also provides for “piggyback” registration rights. We committed to file the registration statement upon demand from Tyco International by February 27, 2017. The investor rights agreement provides for liquidated damages upon the occurrence of certain events, including our failure to file the registration statement by February 27, 2017 in the amount of 1.5% of the aggregate amount invested by Tyco International for each 30-day period, or pro rata portion thereof, during which the default continues. The Tyco International shares are included in the registration statement, of which this prospectus is a part, filed with the SEC pursuant to the investor rights agreement.

### Selling Stockholder Table

The following table sets forth for each selling stockholder the selling stockholder’s name, the number and percentage of shares of common stock beneficially owned as of February 21, 2017, the maximum number of shares of common stock that may be offered pursuant to this prospectus and the number and percentage of shares of common stock that would be beneficially owned after the sale of the maximum number of shares of common stock, and is based upon information provided to us by the selling stockholders for use in this prospectus. The information presented in the table is based on 19,337,164 shares of our common stock outstanding on February 21, 2017.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. To our knowledge, and based on the information provided to us by the selling stockholders, the selling stockholders named in the table have sole voting and investment power with respect to all shares beneficially owned. We do not know when or in what amounts the selling stockholders may offer their shares for sale. Because the selling stockholders may offer all, some or none of their shares pursuant to this prospectus, no definitive estimate can be provided as to the number of shares that will be held, or percentage of shares beneficially owned, by the selling stockholders after completion of any offerings pursuant to this prospectus. Except as otherwise disclosed herein, the selling stockholders, to our knowledge, have not had a material relationship with us during the three years immediately prior to the date of this prospectus.

Name of Selling Stockholder	Shares Beneficially Owned Prior to the Offering		Maximum Number of Shares to be Sold Hereunder	Shares Beneficially Owned After the Sale of the Maximum Number of Shares	
	Number	Percentage		Number	Percentage
Tyco International Finance S.A. (1)	939,005	4.9%	939,005	—	—

(1) Peter Schieser is the managing director of the selling stockholder and, as such, exercises voting and investment authority over the shares beneficially owned by this selling stockholder.

## PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholders as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose (collectively, "dispositions") of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. The selling stockholders may sell all or a portion of the shares beneficially owned and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when selling or disposing of shares or interests therein:

- underwritten transactions on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this Prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

We will pay all expenses of the registration of the shares, including, without limitation, SEC filing fees and expenses of compliance with state securities or "blue sky" laws; provided, however, that the selling stockholders will pay all underwriting discounts and selling commissions, if any.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act of 1933, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be deemed to be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. "Underwriters" within the meaning of Section 2(11) of the Securities Act are subject to the prospectus delivery requirements of the Securities Act.

There can be no assurance that any selling stockholder will sell any or all of the shares registered pursuant to the registration statement of which this prospectus forms a part.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or (2) the date on which all of the shares are sold without restriction pursuant to Rule 144 of the Securities Act.

## LEGAL MATTERS

The validity of the issuance of the common stock offered by this prospectus has been passed upon for us by Greenberg Traurig, LLP, Irvine, California.

## EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2015 have been so incorporated in reliance on the report of Armanino LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

## WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room located at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. Our filings with the SEC also are available from the SEC's internet site at <http://www.sec.gov>, which contains reports, proxy and information statements, and other information regarding issuers that file electronically.

This prospectus is part of a registration statement that we filed with the SEC. As permitted by SEC rules, this prospectus and any accompanying prospectus supplement that we may file, which form a part of the registration statement, do not contain all of the information that is included in the registration statement. The registration statement contains more information regarding us and our securities, including certain exhibits. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's website.

## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC permits us to “incorporate by reference” the information and reports we file with it. This means that we can disclose important information to you by referring to another document. The information that we incorporate by reference is considered to be part of this prospectus, and later information that we file with the SEC automatically updates and supersedes this information. We incorporate by reference the documents listed below, except to the extent information in those documents is different from the information contained in this prospectus, and all future documents filed with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act (other than the portions thereof deemed to be furnished to the SEC pursuant to Item 9 or Item 12) until we terminate the offering of these securities:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, which was filed on March 28, 2016;
- Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016, which were filed on May 19, 2016, August 10, 2016, and November 7, 2016, respectively;
- Our Current Reports on Form 8-K, which were filed on March 25, 2016, May 24, 2016, November 16, 2016, December 21, 2016 and February 13, 2017;
- The description of our common stock in our Form 8-A12B, which was filed on July 24, 2015, and any amendments or reports filed for the purpose of updating this description; and
- All documents we file with the SEC under Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of this offering made by way of this prospectus.

To the extent that any statement in this prospectus is inconsistent with any statement that is incorporated by reference and that was made on or before the date of this prospectus, the statement in this prospectus shall supersede such incorporated statement. The incorporated statement shall not be deemed, except as modified or superseded, to constitute a part of this prospectus or the registration statement. Statements contained in this prospectus as to the contents of any contract or other document are not necessarily complete and, in each instance, we refer you to the copy of each contract or document filed as an exhibit to our various filings made with the SEC.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Aqua Metals, Inc.  
Attn: Investor Relations  
1010 Atlantic Avenue  
Alameda, California 94501  
(510) 479-7635

## PART II – INFORMATION NOT REQUIRED IN PROSPECTUS

### Item 14. Other Expenses of Issuance and Distribution

The estimated expenses in connection with the issuance and distribution of the securities being registered, all of which will be borne by us, are set forth in the following itemized table:

SEC Registration Fee	\$	1,916.51	
Printing Fees and Expenses			*
Legal Fees and Expenses			*
Accounting Fees and Expenses			*
Transfer Agent Fees and Expenses			*
Miscellaneous Fees and Expenses			*
<b>Total</b>	<b>\$</b>	<b>1,916.51</b>	

\* Fees and expenses (other than the SEC registration fee to be paid upon the filing of this registration statement) will depend on the number and nature of the offerings of common stock, and cannot be estimated at this time. An estimate of the aggregate expenses in connection with the distribution of common stock being offered will be included in any applicable prospectus supplement.

### Item 15. Indemnification of Officers and Directors

We are incorporated under the laws of the State of Delaware. Section 145 of the Delaware General Corporation Law, or DGCL, provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal. Section 145 of the DGCL further authorizes a corporation to purchase and maintain insurance on behalf of any indemnified person against any liability asserted against and incurred by such person in any indemnified capacity, or arising out of such person's status as such, regardless of whether the corporation would otherwise have the power to indemnify such person under the DGCL.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- breach of a director's duty of loyalty to the corporation or its stockholders;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares; or
- transaction from which the director derives an improper personal benefit.

Our amended and restated certificate of incorporation authorizes us to, and our amended and restated bylaws provide that we must, indemnify our directors and officers to the fullest extent authorized by the DGCL and also pay expenses incurred in defending any such proceeding in advance of its final disposition upon delivery of an undertaking, by or on behalf of an indemnified person, to repay all amounts so advanced if it should be determined ultimately that such person is not entitled to be indemnified under this section or otherwise.

As permitted by the DGCL, we have entered into indemnification agreements with each of our directors and certain of our officers. These agreements require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified.

We have an insurance policy covering our officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

Any underwriting agreement or similar agreement that we enter into in connection with an offer of securities pursuant to this registration statement may provide for indemnification by any underwriters of us, our directors, our officers who sign the registration statement and our controlling persons for some liabilities, including liabilities arising under the Securities Act of 1933.

Insofar as the forgoing provisions permit indemnification of directors, executive officers, or persons controlling us for liability arising under the Securities Act we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

#### **Item 16. Exhibits**

The exhibits to this registration statement are listed below in the Exhibit Index.

#### **Item 17. Undertakings**

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
  - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
  - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the “*Calculation of Registration Fee*” table in the effective registration statement; and
  - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (i), (ii) and (iii) do not apply if the registration statement is on Form S-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.



- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
- (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
  - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date, or
- (5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
  - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned Registrant;
  - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of an undersigned registrant; and
  - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (6) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(7) That (1) for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective, and (2) for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(8) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that, in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Alameda, California on February 27, 2017.

### Aqua Metals, Inc.

By: /s/ Stephen R. Clarke  
Stephen R. Clarke  
Chief Executive Officer

## POWER OF ATTORNEY

Each person whose signature appears below hereby constitutes and appoints Stephen R. Clarke and Thomas Murphy, and each of them, as such person's true and lawful attorney-in-fact and agent, each with full powers of substitution and re-substitution, for such person and in such person's name, place and stead, in any and all capacities, to sign any or all amendments (including post effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or his or her substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed on February 27, 2017 by the following persons in the capacities indicated.

<u>Signature</u>	<u>Title</u>
<u>/s/ Stephen R. Clarke</u> Stephen R. Clarke	President, Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ Thomas Murphy</u> Thomas Murphy	Chief Financial Officer and Director (Principal Financial and Accounting Officer)
<u>/s/ Vincent L. DiVito</u> Vincent L. DiVito	Director
<u>/s/ Mark Slade</u> Mark Slade	Director
<u>/s/ Mark Stevenson</u> Mark Stevenson	Director

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## EXHIBIT INDEX

<b>Exhibit No.</b>	<b>Description</b>
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 June 9, 2015)
3.2	Amended and Restated Bylaws of the Registrant (incorporated by reference from the Registrant's Registration Statement on Form S-1 filed on June 9, 2015)
4.1	Investor Rights Agreement between Aqua Metals, Inc. and Tyco International Finance S.A. dated February 7, 2017
5.1	Opinion and Consent of Greenberg Traurig, LLP
23.1	Consent of Armanino LLP
23.4	Consent of Greenberg Traurig, LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on the signature page to this registration statement)

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**INVESTOR RIGHTS AGREEMENT**

**by and between**

**AQUA METALS, INC.**

**and**

**TYCO INTERNATIONAL FINANCE S.A.**

**dated as of February 7, 2017**

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## INVESTOR RIGHTS AGREEMENT

This Investor Rights Agreement (this “**Agreement**”) is made, entered into and is effective as of February 7, 2017 (the “**Effective Date**”), by and among Aqua Metals, Inc., a Delaware corporation (the “**Company**”), and Tyco International Finance S.A., a company organized under the laws of Luxembourg (the “**Investor**”).

### **Recitals**

**WHEREAS**, pursuant to that certain Stock Purchase Agreement, dated as of the date hereof, by and between the Company and the Investor (the “**Stock Purchase Agreement**”), the Investor has purchased from the Company, and the Company has issued and sold to the Investor, shares of common stock, par value \$0.001 per share, of the Company (the “**Common Stock**”);

**WHEREAS**, the Company has agreed to provide the registration and other rights set forth in this Agreement for the benefit of Investor and any other Holder pursuant to the Stock Purchase Agreement; and

**WHEREAS**, it is a condition to the obligations of the Investor and the Company under the Purchase Agreement that this Agreement be executed and delivered.

**NOW, THEREFORE**, in consideration of the mutual covenants and agreements set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by each party hereto, the parties hereby agree as follows:

### **1. REGISTRATION RIGHTS.**

1 . 1 **Definitions.** Capitalized terms used herein without definition shall have the meanings given to them in the Stock Purchase Agreement. The terms set forth below are used herein as so defined:

( a ) Clarke Key Man Event. The term “**Clarke Key Man Event**” means Mr. Stephen Clarke ceases to (i) serve as Chief Executive Officer of the Company or (ii) devote substantially all of his business time and attention to the Company, whether as a result of resignation, death, disability or otherwise.

( b ) Commercial Agreements. The term “**Commercial Agreements**” means (i) that certain Tolling/Lead Purchase Agreement and (ii) that certain Equipment Supply Agreement, each dated the date hereof, between the Company and Johnson Controls Battery Group, Inc., as same may be amended from time to time.

( c ) Exchange Act. The term “**Exchange Act**” means the Securities Exchange Act of 1934, as amended (and any successor thereto) and the rules and regulations promulgated thereunder.

( d ) Excluded Registration. The term “**Excluded Registration**” means a registration statement relating solely to the sale of securities to participants in a Company employee benefit or stock incentive plan, a registration relating to a corporate reorganization or transaction under Rule 145 of the Securities Act, or a registration in which the only shares of Common Stock being registered are shares of Common Stock issuable upon conversion of debt securities which are also being registered.

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( e ) Filing Date. The term “**Filing Date**” means, with respect to the Registration Statement, the date on which such Registration Statement is filed with the SEC.

( f ) Holder. The term “**Holder**” means the Investor or any permitted assignees thereof in accordance with this Agreement.

( g ) Liquidated Damages Multiplier. The term “**Liquidated Damages Multiplier**” means the product of the Purchase Price times the number of Registrable Securities requested by Holder to be registered under the Securities Act pursuant to Section 1.2.

( h ) Mould Key Man Event. The term “**Mould Key Man Event**” means Mr. Selwyn Mould ceases to (i) serve as Chief Operating Officer of the Company or (ii) devote substantially all of his business time and attention to the Company, whether as a result of resignation, death, disability or otherwise.

( i ) Register, Registration and Registered. The terms “**register**,” “**registration**” and “**registered**” refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act, and the declaration or ordering of effectiveness of such registration statement.

( j ) Registrable Securities. The term “**Registrable Securities**” means (1) the Shares and the shares of Common Stock, and (2) any shares of Common Stock issued as (or issuable upon the conversion or exercise of any warrant, note, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, whether by merger, charter amendment, or otherwise, all such shares of Common Stock described in clause (1) of this Section 1.1(g); excluding in all cases, however, any Registrable Securities sold by a person in a transaction in which rights under this Section 1 are not assigned in accordance with this Agreement or any Registrable Securities that have been sold to the public or sold pursuant to Rule 144 promulgated under the Securities Act.

( k ) Registrable Securities Then Outstanding. The number of shares of “**Registrable Securities then outstanding**” shall mean the number of shares of Common Stock which are Registrable Securities and (1) are then issued and outstanding or (2) are then issuable pursuant to the exercise or conversion of then outstanding and then exercisable options, warrants, notes or convertible securities.

( l ) SEC. The term “**SEC**” or “**Commission**” means the U.S. Securities and Exchange Commission.

( m ) Securities Act. The term “**Securities Act**” means the Securities Act of 1933, as amended (and any successor thereto) and the rules and regulations promulgated thereunder.

( n ) Trading Day. The term “**Trading Day**” means any day on which shares of Common Stock are traded on the NASDAQ Capital Market (or the principal securities exchange on which shares of Common Stock are then traded).

(o) VWAP. The term “**VWAP**” means with respect to the shares of Common Stock on any Trading Day, the per share volume weighted average price as displayed under the heading “Bloomberg VWAP” on Bloomberg Page AQMS<equity>AQR (or its equivalent successor if such page is not available) in respect of the period from 9:30 a.m. to 4:00 p.m., New York City time, on such Trading Day or, if such VWAP is unavailable or such page or its equivalent is unavailable, the volume weighted average price of each trade in the shares of Common Stock during such Trading Day between 9:30 a.m. and 4:00 p.m., New York City time, on the Listing Exchange or, if the VWAP is unavailable from the above-referenced sources, as calculated by a nationally recognized independent investment banking firm retained for this purpose by a majority in interest of one or more Holders, such calculation to be made in a manner consistent with the manner in which “VWAP” would have been determined by Bloomberg.

## 1.2 Required Registration.

( a ) The Company Shall file a registration statement under the Securities Act covering the registration of all of the Registrable Securities (any such registration statement or successor registration statement, as may be amended or supplemented from time to time, hereinafter referred to as a “**Registration Statement**”) (including, but not limited to, registration statements relating to secondary offerings of securities of the Company) within twenty (20) days from the date of this Agreement (the “**Target Filing Date**”), so that all of the Registrable Securities are so registered. The Registration Statement filed pursuant to this Section 1.2(a) shall be on SEC form S-3 or such other appropriate registration form of the SEC as shall be selected by the Company so long as it permits the continuous offering of the Registrable Securities pursuant to Rule 415 of the Securities Act or such other rule as is then applicable at the then prevailing market prices and shall include the plan of distribution requested by the majority in interest of Holders, subject to SEC comments. The Company shall use its commercially reasonable efforts to cause the Registration Statement to become effective on or as soon as practicable after the Filing Date. Any Registration Statement shall provide for the resale pursuant to any method or combination of methods legally available to, and reasonably requested by, the Holders of any and all Registrable Securities covered by such Registration Statement. The Company shall use its commercially reasonable efforts to cause the Registration Statement filed pursuant to this Section 1.2(a) to be effective, supplemented and amended to the extent necessary to ensure that it is available for the resale of all Registrable Securities by the Holder and other Holders (if any) until all Registrable Securities covered by such Registration Statement have ceased to be Registrable Securities (the “**Effectiveness Period**”). The Registration Statement when effective (including the documents incorporated therein by reference) will comply as to form in all material respects with all applicable requirements of the Securities Act and the Exchange Act and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading (in the case of any prospectus contained in such Registration Statement, in the light of the circumstances under which a statement is made), other than any statements furnished in writing expressly for use in connection with such registration by the Holders. As soon as practicable following the date that the Registration Statement becomes effective, but in any event within two (2) Business Days of such date, the Company shall provide the Holders with written notice of the effectiveness of the Registration Statement.

( b ) If the Holder intends to distribute the Registrable Securities covered by the above-referenced Registration Statement by means of an underwriting, the Holder shall so advise the Company in writing within five (5) days from the date of this Agreement. The underwriter will be selected by the Company, which underwriter shall be reasonably acceptable to a majority in interest of the Holders whose Registrable Securities are to be included in the underwritten offering. In such event, the right of any Holder to include its Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting (unless otherwise mutually agreed by a majority in interest of the Holders whose Registrable Securities are to be included in the underwritten offering) to the extent provided herein. The Company and all Holders proposing to distribute their securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting. Notwithstanding any other provision of this Section 1.2, if the underwriter advises the Company in good faith that marketing factors require a limitation of the number of shares to be underwritten, then the Company shall so advise all Holders of Registrable Securities that would otherwise be underwritten pursuant hereto, and the number of shares of Registrable Securities that may be included in the underwriting shall be allocated among all participating Holders thereof in proportion (as nearly as practicable) to the respective amounts of Registrable Securities of the Company owned by the participating Holders. In no event shall any Registrable Securities be excluded from such underwriting unless all other securities are first excluded from such underwriting. Any Registrable Securities or other securities excluded from or withdrawn from such underwriting shall be withdrawn from registration.

(c) Notwithstanding the foregoing, if the Company shall furnish to the Holders a certificate signed by the President of the Company stating that in the good faith judgment of the Board of Directors of the Company (the "**Board**") it would be materially detrimental to the Company and its stockholders for such Registration Statement to either become effective or remain effective for as long as such Registration Statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature public disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing for a period of not more than forty (40) consecutive days from the date of this Agreement; provided, however, that the Company shall not register any securities for the account of itself or any other stockholder during such 40-day period (other than in an Excluded Registration). Upon disclosure of such information or the termination of the condition described above, the Company shall provide prompt notice to the Holders whose Registrable Securities are included in the Registration Statement, and shall promptly terminate any suspension of sales it has put into effect and shall take such other reasonable actions to permit registered sales of Registrable Securities as contemplated in this Agreement.

(d) In addition, the Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to this Section 1.2 after the Company has effected a registration pursuant to this Section 1.2; provided, however, that the Registration Statement relating to such effected registration has been declared or ordered effective and (i) either (A) the conditions of Section 1.5(a) have been satisfied, or (B) the Registration Statement remains effective and there are no stop orders in effect with respect to such Registration Statement; and (ii) the number of Registrable Securities included in such Registration Statement has not been limited pursuant to the exercise of any underwriter's cut-back as contemplated by Section 1.2(b) or Section 1.3(b).

(e) If the Registration Statement required by Section 1.2 is not filed by the Target Filing Date, then the Holders shall be entitled to a payment (with respect to Registrable Securities covered by such Registration Statement), as liquidated damages and not as a penalty, of 1.5% of the Liquidated Damage Multiplier for each 30-day period or pro rata for any portion thereof following the Target Filing Date for which no Registration Statement is filed with respect to the Registrable Securities (the "**Liquidated Damages**"). The Liquidated Damages payable pursuant to the immediately preceding sentence shall be payable within three (3) Business Days after the end of each such 30-day period. Any Liquidated Damages shall be paid to the Holders in immediately available funds; provided, however, if the Company certifies that it is unable to pay Liquidated Damages in cash because such payment would result in a breach under a credit facility or other debt instrument filed as exhibits to all forms, registration statements, reports, schedules and statements required to be filed by the Company with the SEC under the Exchange Act or the Securities Act, then the Company shall pay such Liquidated Damages using as much cash as permitted without breaching any such credit facility or other debt instrument and shall pay the balance of any such Liquidated Damages in kind in the form of the issuance of additional shares of Common Stock. Upon any issuance of shares of Common Stock as Liquidated Damages, the Company shall promptly (i) prepare and file an amendment to the Registration Statement prior to its effectiveness adding such shares of Common Stock to such Registration Statement as additional Registrable Securities and (ii) prepare and file a supplemental listing application with the NASDAQ Capital Market (or such other market on which the Registrable Securities are then listed and traded) (the "**Listing Exchange**") to list such additional shares of Common Stock. The determination of the number of shares of Common Stock to be issued as Liquidated Damages shall be equal to the amount of Liquidated Damages divided by the volume weighted average price of the shares of Common Stock on the Listing Exchange for the ten Trading Days immediately preceding the date on which the Liquidated Damages payment is due. The accrual of Liquidated Damages to a Holder shall cease at the earlier of (i) the Registration Statement becoming effective or (ii) when such Holder no longer holds Registrable Securities, and any payment of Liquidated Damages shall be prorated for any period of less than 30 days in which the payment of Liquidated Damages ceases. If the Company is unable to cause a Registration Statement to go effective within 40 days after the Filing Date as a result of an acquisition, merger, reorganization, disposition or other similar transaction, then the Company may request a waiver of the Liquidated Damages, and each Holder may individually grant or withhold its consent to such request in its discretion.

### 1.3 Piggyback Registrations.

( a ) The Company shall notify all Holders of Registrable Securities in writing at least twenty (20) days prior to filing any registration statement under the Securities Act for purposes of effecting a public offering of securities of the Company, other than an Excluded Registration, and will afford each such Holder an opportunity to include in such registration statement all or any part of the Registrable Securities then held by such Holder. Each Holder desiring to include in any such registration statement all or any part of the Registrable Securities held by such Holder shall within twenty (20) days after receipt of the above-described notice from the Company, so notify the Company in writing, and in such notice shall inform the Company of the number of Registrable Securities such Holder wishes to include in such Registration Statement. If a Holder decides not to include all of its Registrable Securities in any Registration Statement thereafter filed by the Company, such Holder shall nevertheless continue to have the right to include any Registrable Securities in any subsequent Registration Statement or Registration Statements as may be filed by the Company with respect to offerings of its securities, all upon the terms and conditions set forth herein.

( b ) Underwriting. If a Registration Statement for which the Company gives notice under this Section 1.3 is for an underwritten offering, then the Company shall so advise the Holders of Registrable Securities. In such event, the right of any such Holder to include its Registrable Securities in such registration pursuant to this Section 1.3 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their Registrable Securities through such underwriting shall enter into an underwriting agreement in customary form with the managing underwriter or underwriter(s) selected for such underwriting; provided that any such underwriting agreement shall not impair the indemnification rights of the Holders granted under Section 1.8. Notwithstanding any other provision of this Agreement, if the managing underwriter(s) determine(s) in good faith that marketing factors require a limitation of the number of shares to be underwritten, then the managing underwriter(s) may exclude shares (including Registrable Securities) from the registration and the underwriting, and the number of shares that may be included in the registration and the underwriting shall be allocated, first, to the Company, second, to each of the Holders, excluding employees, officers and directors of the Company, requesting inclusion of their Registrable Securities in such registration statement on a pro rata basis based on the total number of Registrable Securities then held by each such Holder and third to employees, officers and directors of the Company requesting inclusion of their Registrable Securities in such registration statement on a pro rata basis based on the total number of Registrable Securities then held by each such employee, officer or director. If any Holder disapproves of the terms of any such underwriting, such Holder may elect to withdraw therefrom by written notice to the Company and the underwriter, delivered at least twenty (20) days prior to the effective date of the Registration Statement. Any Registrable Securities excluded or withdrawn from such underwriting shall be excluded and withdrawn from the registration. For any Holder that is a partnership or corporation, the partners, retired partners and shareholders of such Holder, or the estates and family members of any such partners and retired partners and any trusts for the benefit of any of the foregoing persons shall be deemed to be a single "Holder," and any pro rata reduction with respect to such "Holder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "Holder," as defined in this sentence.

( c ) Rule 415; Cutback. If at any time the SEC takes the position that the offering of some or all of the Registrable Securities in a Registration Statement is not eligible to be made on a delayed or continuous basis under the provisions of Rule 415 under the Securities Act or requires any Holder to be named as an “underwriter”, the Company shall use its best efforts to persuade the SEC that the offering contemplated by a Registration Statement is a bona fide secondary offering and not an offering “by or on behalf of the issuer” as defined in Rule 415 and that none of the Holders is an “underwriter”. In the event that, despite the Company’s best efforts and compliance with the terms of this Section 1.3(c), the SEC refuses to alter its position, the Company shall (i) remove from the Registration Statement such portion of the Registrable Securities (the “**Cut Back Shares**”) and/or (ii) agree to such restrictions and limitations on the registration and resale of the Registrable Securities as the SEC may require to assure the Company’s compliance with the requirements of Rule 415 (collectively, the “**SEC Restrictions**”). Any cut-back imposed pursuant to this Section 1.3(c) shall be allocated among the Holders on a pro rata basis, unless the SEC Restrictions otherwise require or provide or the Holders otherwise agree. Any cut back imposed pursuant to a SEC comment shall be applied, first, to securities of the Company that are registered pursuant to an agreement subsequent to the date of this Agreement and, next, to the Registrable Securities and any securities registered pursuant to an agreement entered into prior to or contemporaneous with the date of this Agreement on a pro rata basis. No Liquidated Damages shall accrue as to any Cut Back Shares until such date as the Company is able to effect the registration of such Cut Back Shares in accordance with any SEC Restrictions (such date, the “**Restriction Termination Date**” of such Cut Back Shares). From and after the Restriction Termination Date applicable to any Cut Back Shares, all of the provisions of this Section 1.3 (including the Liquidated Damages provisions) shall again be applicable to such Cut Back Shares; provided, however, that (i) the Target Filing Date for the Registration Statement including such Cut Back Shares shall be ten (10) Business Days after such Restriction Termination Date, and (ii) the date by which the Company is required to obtain effectiveness with respect to such Cut Back Shares shall be the 60th day immediately after the Restriction Termination Date.

1 . 4 Expenses. All expenses incurred by the Company and the Holders in connection with a registration pursuant to Section 1.2 and Section 1.3 (excluding underwriters’ and brokers’ discounts and commissions on Registrable Securities included in such registration for the Holders (collectively, the “**Selling Expenses**”)), including, without limitation, all federal and “blue sky” registration and qualification fees, printers’ and accounting fees, Listing Exchange fees, fees of the Financial Industry Regulatory Authority, fees of transfer agents and registrars, fees and disbursements of counsel for the Company and reasonable fees and disbursements of one counsel for the selling Holders, shall be borne by the Company.

1 . 5 Obligations of the Company. Whenever required to effect the registration of any Registrable Securities under this Agreement, the Company shall, as expeditiously as reasonably possible:

( a ) Prepare and file with the SEC a Registration Statement with respect to such Registrable Securities and use reasonable, diligent efforts to cause such Registration Statement to become effective, and, keep such Registration Statement effective for a period ending on the date on which the Holders have completed the distribution described in such Registration Statement of all Registrable Securities included therein.

( b ) Prepare and file with the SEC such amendments and supplements to such Registration Statement and the prospectus used in connection with such Registration Statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such Registration Statement.

( c ) Furnish to the Holders such number of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act and such other documents as they may reasonably request in order to facilitate the disposition of the Registrable Securities owned by them that are included in such registration.

( d ) Use reasonable, diligent efforts to register and qualify the securities covered by such Registration Statement under such other securities or Blue Sky laws of such U.S. jurisdictions as shall be reasonably requested by the Holders, provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such jurisdictions.

( e ) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter(s) of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

( f ) Promptly notify each Holder, at any time when a prospectus relating thereto is required to be delivered under the Securities Act, of (i) the filing of the Registration Statement or any prospectus or prospectus supplement to be used in connection therewith, or any amendment or supplement thereto, and, with respect to such Registration Statement or any post-effective amendment thereto, when the same has become effective; and (ii) the receipt of any written comments from the SEC with respect to any filing referred to in clause (i) and any written request by the SEC for amendments or supplements to the Registration Statement or any prospectus or prospectus supplement thereto.

( g ) Immediately notify each Holder, at any time when a prospectus relating thereto is required to be delivered under the Securities Act, of (i) the happening of any event as a result of which the prospectus or prospectus supplement contained in the Registration Statement, as then in effect, includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading (in the case of any prospectus contained therein, in the light of the circumstances under which such statement is made); (ii) the issuance or threat of issuance by the SEC of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; or (iii) the receipt by the Company of any notification with respect to the suspension of the qualification of any Registrable Securities for sale under the applicable securities or blue sky laws of any jurisdiction. Following the provision of such notice, the Company agrees to as promptly as practicable amend or supplement the prospectus or prospectus supplement or take other appropriate action so that the prospectus or prospectus supplement does not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing and to take such other commercially reasonable action as is necessary to remove a stop order, suspension, threat thereof or proceedings related thereto.



(h) Upon request and subject to appropriate confidentiality obligations, furnish to each Holder copies of any and all transmittal letters or other correspondence with the SEC or any other governmental agency or self-regulatory body or other body having jurisdiction (including any domestic or foreign securities exchange) relating to such offering of Registrable Securities.

(i) Otherwise use its commercially reasonable efforts to comply with all applicable rules and regulations of the SEC, and make available to its security holders, as soon as reasonably practicable, an earnings statement, which earnings statement shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 promulgated thereunder.

(j) Cause all such Registrable Securities registered pursuant to this Agreement to be listed on each securities exchange or nationally recognized quotation system on which similar securities issued by the Company are then listed.

(k) Use its commercially reasonable efforts to cause the Registrable Securities to be registered with or approved by such other U.S. governmental agencies or authorities as may be necessary by virtue of the business and operations of the Company to enable the Holders to consummate the disposition of such Registrable Securities.

(l) Provide a transfer agent and registrar for all Registrable Securities covered by such registration statement not later than the effective date of such registration statement.

(m) Enter into customary agreements and take such other actions as are reasonably requested by the Holders in order to expedite or facilitate the disposition of such Registrable Securities.

(n) In the case of an underwritten offering, furnish upon request, (i) an opinion of counsel for the Company dated the date of the closing under the underwriting agreement and (ii) a “comfort” letter, dated the pricing date of such underwritten offering and a letter of like kind dated the date of the closing under the underwriting agreement, in each case, signed by the independent public accountants who have certified the Company’s financial statements included or incorporated by reference into the applicable registration statement, and each of the opinion and the “comfort” letter shall be in customary form and covering substantially the same matters with respect to such registration statement (and the prospectus and any prospectus supplement included therein) as have been customarily covered in opinions of issuer’s counsel and in accountants’ letters delivered to the underwriters in underwritten offerings of securities by the Company and such other matters as such underwriters and Holders may reasonably request;

(o) If requested by any Holder, (i) incorporate in a prospectus supplement or post-effective amendment such information as such Holder reasonably requests to be included therein relating to the sale and distribution of Registrable Securities, including information with respect to the number of Registrable Securities being offered or sold, the purchase price being paid therefor and any other terms of the offering of the Registrable Securities to be sold in such offering and (ii) make all required filings of such prospectus supplement or post-effective amendment after being notified of the matters to be incorporated in such prospectus supplement or post-effective amendment.

The Company will not name any Holder as an underwriter as defined in Section 2(a)(11) of the Securities Act in any Registration Statement without such Holder's consent. If the staff of the SEC requires the Company to name any Holder as an underwriter as defined in Section 2(a)(11) of the Securities Act, and such Holder does not consent thereto, then such Holder's Registrable Securities shall not be included on the Registration Statement, such Holders shall no longer be entitled to receive Liquidated Damages under this Agreement with respect thereto and the Company shall have no further obligations hereunder with respect to Registrable Securities held by such Holder.

Each Holder, upon receipt of notice from the Company of the happening of any event of the kind described in subsection (g) of this Section 1.5, shall forthwith discontinue offers and sales of the Registrable Securities by means of a prospectus or prospectus supplement until such Holder's receipt of the copies of the supplemented or amended prospectus contemplated by subsection (g) of this Section 1.5 and it is advised in writing by the Company that the use of the prospectus may be resumed, and has received copies of any additional or supplemental filings incorporated by reference in the prospectus, and, if so directed by the Company, each Holder will deliver to the Company (at the Company's expense) all copies in their possession or control, other than permanent file copies then in such Holder's possession, of the prospectus covering such Registrable Securities current at the time of receipt of such notice.

1.6 **Furnish Information.** It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 1 that the selling Holders shall furnish to the Company such information regarding themselves, the Registrable Securities held by them, and the intended method of disposition of such Registrable Securities as shall be required to timely effect the registration of their Registrable Securities.

1.7 **Rule 144 Reporting.** With a view to making available the benefits of certain rules and regulations of the SEC that may permit the sale of the Registrable Securities to the public without registration, the Company agrees to use its commercially reasonable efforts to:

(a) Make and keep public information regarding the Company available, as those terms are understood and defined in Rule 144 under the Securities Act, at all times from and after the date hereof;

( b ) File with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act at all times from and after the date hereof; and

( c ) So long as a Holder owns any Registrable Securities, furnish, unless otherwise available on EDGAR, to such Holder forthwith upon request a copy of the most recent annual or quarterly report of the Company, and such other reports and documents so filed as such Holder may reasonably request in availing itself of any rule or regulation of the SEC allowing such Holder to sell any such securities without registration.

(d) In the event that the Company fails to comply with the requirements of this Section 1.7 after the 180th day after the Effective Date, the Company will make pro rata payments to the Holders, as Liquidated Damages and not as a penalty, in an amount equal to 1.5% of the Liquidated Damage Multiplier for each 30-day period or pro rata for any portion thereof until such failure is cured; provided, however, that only Holders that have not sold or otherwise disposed of all of their Registrable Securities prior to such failure shall be entitled to receive Liquidated Damages pursuant to this Section 1.7. Such payments shall constitute the Holders' exclusive monetary remedy for such events, but shall not affect the right of the Holders to seek injunctive relief. Such payments shall be made to any such Holder in cash no later than three (3) Business Days after the end of each 30-day period.

1.8 **Indemnification.** In the event any Registrable Securities are included in a Registration Statement under this Section 1:

(a) **Indemnification by the Company.** To the extent permitted by law, the Company shall indemnify and hold harmless each Holder, the partners, officers and directors of each Holder, any underwriter (as defined in the Securities Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages, or liabilities (joint or several), and any actions, proceedings or settlements in respect thereof, to which they may become subject under the Securities Act, the Exchange Act or other federal or state law insofar as such losses, claims, damages or liabilities (or actions, proceedings or settlements in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively, "**Violations**" and, individually, a "**Violation**"):

- (1) any untrue statement or alleged untrue statement of a material fact contained in or incorporated by reference into such Registration Statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto;
- (2) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or
- (3) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any federal or state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any federal or state securities law in connection with the offering covered by such Registration Statement;

and the Company shall reimburse each such Holder, partner, officer or director, underwriter or controlling person for any legal or other expenses reasonably incurred by them, as incurred, in connection with investigating or defending any such loss, claim, damage, liability, action or proceeding or effecting any such settlement; provided, however, that the indemnity agreement contained in this Section 1.8(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, action or proceeding if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, claim, damage, liability, action or proceeding to the extent that it arises out of or is based upon a Violation that occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by such Holder, partner, officer, director, underwriter or controlling person of such Holder.

(b) Indemnification by Selling Holders. To the extent permitted by law, each selling Holder will indemnify and hold harmless the Company, each of its directors, each of its officers who have signed the Registration Statement, each person, if any, who controls the Company within the meaning of the Securities Act, any underwriter and any other Holder selling securities under such Registration Statement or any of such other Holder's partners, directors or officers or any person who controls such Holder within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages or liabilities (joint or several), and any actions, proceedings or settlements in respect thereof, to which the Company or any such director, officer, controlling person, underwriter or other such Holder, partner or director, officer or controlling person of such other Holder may become subject under the Securities Act, the Exchange Act or other federal or state law insofar as such losses, claims, damages or liabilities (or actions, proceedings or settlements in respect thereof) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder expressly for use in connection with such registration; and each such Holder will reimburse any legal or other expenses reasonably incurred by the Company or any such director, officer, controlling person, underwriter or other Holder, partner, officer, director or controlling person of such other Holder in connection with investigating or defending any such loss, claim, damage, liability, action or proceedings or effecting any such settlement; provided, however, that the indemnity agreement contained in this Section 1.8(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, action or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided, further, that the total amounts payable by a Holder under this Section 1.8(b) in respect of any Violations shall not exceed the net proceeds received by such Holder in the registered offering out of which such Violations arise.

(c) Notice. Promptly after receipt by an indemnified party under this Section 1.8 of notice of the commencement of any action or proceeding (including any governmental action), such indemnified party shall, if a claim in respect thereof is to be made against any indemnifying party under this Section 1.8, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party shall have the right to retain its own counsel, with the fees and expenses to be paid by the indemnifying party, if (i) representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to an actual or potential conflict of interests between such indemnified party and any other party represented by such counsel in such action or proceeding or (ii) there are available to the indemnified party in such action or proceeding any defenses or counterclaims that are not available to another party represented by such counsel in such action or proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if materially prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 1.8, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 1.8.

( d ) Defect Eliminated Final Prospectus. The foregoing indemnity agreements of the Company and Holders are subject to the condition that, insofar as they relate to any Violation made in a preliminary prospectus but eliminated or remedied in an amended prospectus on file with the SEC at the time the Registration Statement in question becomes effective or the amended prospectus filed with the SEC pursuant to SEC Rule 424(b) (the “**Final Prospectus**”), such indemnity agreement shall not inure to the benefit of any person if a copy of the Final Prospectus was furnished to the indemnified party and was not furnished to the person asserting the loss, liability, claim or damage at or prior to the time such action is required by the Securities Act.

(e) Contribution. In order to provide for just and equitable contribution to joint liability under the Securities Act, in any case in which any Holder exercising rights under this Agreement, or any controlling person of any such Holder, makes a claim for indemnification pursuant to this Section 1.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the time to appeal has expired or the last right of appeal has been denied) that such indemnification may not be enforced in such case notwithstanding the fact that this Section 1.8 provides for indemnification in such case; then, and in each such case, the Company and such Holder will contribute to the aggregate losses, claims, damages or liabilities to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of such indemnified party on the other in connection with the statements or omissions that resulted in such aggregate losses, claims, damages or liabilities, as well as any other relevant equitable considerations; provided, however, that, in any such case, (A) no such Holder shall be required to contribute an aggregate amount in excess of the dollar amount of proceeds (net of Selling Expenses) received by such Holder from the sale of Registrable Securities giving rise to such indemnification; and (B) no person or entity guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any person or entity who was not guilty of such fraudulent misrepresentation.

(f) Survival. The obligations of the Company and Holders under this Section 1.8 shall survive the completion of any offering of Registrable Securities in a Registration Statement, and otherwise.

1 . 9 Termination of the Company’s Obligations. The Company shall have no obligations pursuant to this Section 1 with respect to any Registrable Securities proposed to be sold by a Holder in a registration pursuant to Section 1.2 or Section 1.3 if, in the opinion of counsel to the Company, all such Registrable Securities proposed to be sold by a Holder may be sold in a three-month period without registration under Rule 144 under the Securities Act and without the need for current public information pursuant to any section of Rule 144 (or any similar provision then in effect) under the Securities Act, assuming the Holders of such Registrable Security are not affiliates (as defined in Rule 144(a)(1)) of the Company).

## 2. RIGHT OF FIRST OFFER.

2.1 **General.** Subject to Section 2.6 below, each Holder and any party to whom such Holder's rights under this Section 2.1 have been duly assigned in accordance with this Agreement (each such Holder or assignee being hereinafter referred to as a "**Rights Holder**") shall have the right of first offer to purchase such Rights Holder's Pro Rata Share (as defined below), of all (or any part) of any "**New Securities**" (as defined in Section 2.2) that the Company may from time to time issue after the date of this Agreement. This right of first offer shall be subject to the provisions in this Section 2.1. A Rights Holder's "**Pro Rata Share**" for purposes of this right of first offer is the ratio of (a) the number of Registrable Securities as to which such Rights Holder is the Holder to (b) the total number of shares of Common Stock then outstanding.

2.2 **New Securities.** "**New Securities**" shall mean any common or preferred shares of the Company, whether now authorized or not, and rights, options or warrants to purchase such common or preferred shares, and securities of any type whatsoever that are, or may become, convertible or exchangeable into such common or preferred shares; provided, however, that the term "**New Securities**" does not include:

( a ) any shares of Common Stock issued or issuable upon conversion of any outstanding option, warranty, right or other security;

( b ) any shares of Common Stock (or options, warrants or rights therefor) granted or issued hereafter to employees, officers, directors, contractors, consultants or advisers of, the Company or any subsidiary pursuant to incentive agreements, share purchase or share option plans, share bonuses or awards, warrants, contracts or other arrangements that are approved by the Board;

( c ) any common or preferred shares of the Company (and/or options or warrants therefor) issued or issuable to parties providing the Company with equipment leases, real property leases, loans, credit lines, guaranties of indebtedness, cash price reductions or similar financing, under arrangements approved by the Board;

( d ) any common or preferred shares issued pursuant to the acquisition of another corporation or entity by the Company by consolidation, merger, purchase of all or substantially all of the assets, or other reorganization in which the Company acquires, in a single transaction or series of related transactions, all or substantially all of the assets of such other corporation or entity or fifty percent (50%) or more of the voting power of such other corporation or entity or fifty percent (50%) or more of the equity ownership of such other entity;

( e ) any common or preferred shares of the Company issued in connection with any share split or share dividend; or

( f ) any securities offered by the Company to the public pursuant to a Registration Statement filed under the Securities Act.

2.3 **Procedures.** In the event that the Company proposes to undertake an issuance of New Securities, it shall give to each Rights Holder written notice of its intention to issue New Securities (the "**Notice**"), describing the type of New Securities and the price and the general terms upon which the Company proposes to issue such New Securities. Each Rights Holder shall have ten (10) days from the date of mailing of any such Notice to agree in writing to purchase all or any portion of such Rights Holder's Pro Rata Share of such New Securities for the price and upon the terms specified in the Notice by giving written notice to the Company and stating therein the quantity of New Securities to be purchased (not to exceed such Rights Holder's Pro Rata Share). If any Rights Holder fails to so agree in writing within such ten (10)-day period to purchase such Rights Holder's full Pro Rata Share of an offering of New Securities (a "**Non-Purchasing Holder**"), then such Non-Purchasing Holder shall forfeit the right hereunder to purchase that part of its Pro Rata Share of such New Securities that it did not so agree to purchase.

2.4 **Failure to Exercise.** In the event that the Rights Holders fail to exercise in full the right of first refusal within such ten (10)-day period, then the Company shall have sixty (60) days after the expiration of such ten (10)-day period to sell the New Securities with respect to which the Rights Holders' rights of first offer hereunder were not exercised, at a price and upon terms not more favorable to the purchasers thereof than specified in the Company's Notice to the Rights Holders. In the event that the Company has not issued and sold the New Securities within such sixty (60)-day period, then the Company shall not thereafter issue or sell any New Securities without again first offering such New Securities to the Rights Holders pursuant to this Section 2.

2.5 **Assignment.** This right of first offer may not be assigned or transferred, except that (a) such right is assignable by each Rights Holder to any of its direct or indirect wholly-owned subsidiaries, and (b) such right is assignable between and among any of the Holders.

2.6 **Termination.** The right of first offer shall terminate on the earlier of (i) such time as the Holders no longer own 50% of the Shares acquired by the Investor pursuant to the Stock Purchase Agreement, or (ii) the date on which (A) both of the Commercial Agreements have expired or been terminated, and (B) the parties to the expired or terminated Commercial Agreements are no longer providing any material services to each other pursuant to any sort of post-expiration or post-termination "tail" or similar provision in accordance with the terms of the Commercial Agreements.

### 3. BOARD OBSERVATION RIGHTS.

3.1 **Appointment of Observer.** The Investor shall have the right to designate a non-voting observer (the "**Board Observer**") to receive notice of and attend all meetings (whether in person, telephonic or electronic) of the Board for the purposes of permitting the Board Observer to have current information with respect to the affairs of the Company and the actions taken by the Board. The Board Observer shall be an employee of the Investor or its Affiliates, and the initial Board Observer shall be Thomas R. Parmenter. The Board Observer appointed pursuant to this Section 3.1 shall have the right to receive advance copies of all agenda materials and other documents distributed to directors in connection with any meeting and all matters proposed to the Board for their unanimous consent, and all minutes of the proceedings of the Company, subject to Section 3.2. In no event shall the Board Observer: (i) be deemed to be a member of the Board; (ii) have the right to vote on any matter under consideration by the Board or otherwise have any power to cause the Company to take, or not to take, any action; or (iii) except as expressly set forth in this Agreement, have or be deemed to have, or otherwise be subject to, any duties (fiduciary or otherwise) to the Company or its stockholders or any duties (fiduciary or otherwise) otherwise applicable to the directors of the Company. The Investor shall designate the Board Observer in writing, who shall be an officer or employee of Investor, and shall not change the Board Observer more than once during any 12 month period except with the Board's consent or the discontinuation of such Board Observer's employment with the Investor. To the extent that the Investor's Board Observer is no longer employed by the Investor or its Affiliates, or if the Investor wishes to replace the Board Observer and designate a different employee of the Investor or its Affiliates to be the Board Observer, Investor shall consult with the Company and the parties agree to work together in good faith to find a mutually acceptable replacement; provided, however, that Investor shall ultimately have the discretion to name such replacement.

3.2 **Right to Exclude.** Notwithstanding Section 3.1, the Chairman of the Board (the “**Chairman**”) shall have the right (in his reasonable discretion) to exclude any Board Observer from a portion of a meeting of the Board and withhold information pertaining to such portion of a meeting, if the Chairman determines in good faith that (i) such portion of the meeting relates to conflict of interest matters between the Company and the Investor, or (ii) the attendance of such Board Observer would violate any obligation of the Company to maintain the confidentiality of information discussed at such meeting, or could cause the Company to lose the protection of the attorney-client privilege or any other privilege that the Company would otherwise be entitled to assert. In the event the Chairman determines to exclude a Board Observer from a Board meeting, the Board shall provide notice to such Board Observer of such meeting, the portions thereof during which the Board Observer will be excluded, and the basis and reason the Chairman determined to exclude such Board Observer.

3.3 **Termination of Observer Rights.** The observation rights shall terminate on the earlier of (i) such time as the Holders no longer own 50% of the Shares acquired by the Investor pursuant to the Stock Purchase Agreement, or (ii) the date on which (A) both of the Commercial Agreements have expired or been terminated, and (B) the parties to the expired or terminated Commercial Agreements are no longer providing any material services to each other pursuant to any sort of post-expiration or post-termination “tail” or similar provision in accordance with the terms of the Commercial Agreements.

3.4 **D&O Policy.** Within twenty (20) Business Days following the Effective Date, the Company shall bind primary Director and Officer (D&O) coverages for the Board Observer, and such coverage shall extend for the duration of the Board Observer’s appointment as a Board Observer of the Company and thereafter for the duration of the applicable statute of limitations; provided, however, that such coverage be at a minimum in the amount of five million dollars (\$5,000,000).

#### 4. **KEY MAN EVENTS.**

##### 4.1 **Penalties.**

( a ) Upon the occurrence of either a Clarke Key Man Event or a Mould Key Man Event during the eighteen (18) months following the Effective Date, the Company shall be required to pay to the Investor, as a penalty, \$1,000,000 per such occurrence, payable, at the Company’s election, by wire transfer of immediately available funds to the Investor’s account or shares of Common Stock at a price per share equal to the VWAP of shares of Common Stock for the thirty (30) consecutive full Trading Days immediately preceding, but excluding, such date.

(b) Upon the occurrence of either or both a Clarke Key Man Event and a Mould Key Man Event after that date which is eighteen (18) months following the Effective Date and prior to that date which is thirty (30) months following the Effective Date, the Company shall be required to pay to the Investor, as a penalty, \$1,000,000 total, payable, at the Company’s election, by wire transfer of immediately available funds to the Investor’s account or shares of Common Stock at a price per share equal to the VWAP of shares of Common Stock for the thirty (30) consecutive full Trading Days immediately preceding, but excluding, such date.



4.2 **Waiver of Penalties.** If the Investor, 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 penalties set forth in Section 4.1 shall be deemed waived by the Investor.

## 5. GENERAL PROVISIONS.

5.1 **Notices.** Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient upon delivery, when delivered personally or by overnight courier or sent by fax (upon customary confirmation of receipt), or forty-eight (48) hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, addressed to the party to be notified at such party's address as set forth on the signature page hereto, or as subsequently modified or provided by written notice, and (a) if to the Company to Stephen R. Clarke, Chief Executive Officer, Aqua Metals, Inc., 1010 Atlantic Avenue, Alameda, CA 94501, with a copy to Daniel K. Donahue, (email: donahued@gtlaw.com), Greenberg Traurig, LLP, 3161 Michelson Drive, Suite 1000, Irvine, CA 92612 (which copy shall not constitute notice), or (b) if to the Investor to General Counsel (email: CO-General.Counsel@jci.com), Tyco International Finance S.A., c/o Johnson Controls International plc, 5757 N. Green Bay Avenue, Milwaukee, WI 53209, with a copy to J. Hovey Kemp (email: hkemp@goodwinlaw.com), Goodwin Procter LLP, 3 Embarcadero Center, San Francisco, CA 94111, (which copy shall not constitute notice).

5.2 **Expenses.** The parties hereby agree that, (i) prior to the execution and delivery of each of this Agreement and the other Transaction Documents (as defined in the Stock Purchase Agreement), each party will bear its own costs and expenses, including, without limitation, costs incurred for due diligence, except to the extent as otherwise provided herein or therein; and (ii) upon the execution and delivery of this Agreement and the other Transaction Documents, the Company shall reimburse the Investor (and any Affiliate that is a party to the Transaction Documents for all expenses incurred in connection with the transactions contemplated therein and thereby, including without limitation the reimbursement of all reasonable and documented costs and expenses incurred by the Investor's Board Observer in attending Board meetings of the Company; provided, however, that notwithstanding the foregoing, the Company's reimbursement obligation for the expenses incurred by the Investor in connection with the transactions contemplated herein shall be capped at \$100,000.

5.3 **Entire Agreement.** This Agreement constitutes and contains the entire agreement among the Company and the Investor with respect to the subject matter hereof and supersedes all previous agreements and understandings, written or oral, concerning the subject matter hereof.

5.4 **Amendments and Waivers.** This Agreement may not be amended or modified in any manner nor may any of its provisions be waived except by written amendment executed by the parties. A waiver, modification or amendment by a party shall only be effective against a party if (a) it is in writing and signed by such party, (b) it specifically refers to this Agreement and (c) it specifically states that the party, as the case may be, is waiving, modifying or amending its rights hereunder. Any such amendment, modification or waiver shall be effective only in the specific instance and for the specific purpose for which it was given. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each party to this Agreement and each future Holder of all Registrable Securities, and the Company.

5 . 5 **Severability.** If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision or provisions shall be excluded from this Agreement and the remainder of this Agreement shall be interpreted as if such provision or provisions were so excluded from the Agreement as originally executed and shall be enforceable in accordance with its terms.

5 . 6 **Governing Law.** This Agreement shall be governed in all respects by the laws of the State of Delaware applicable to contracts entered into and wholly to be performed within the State of Delaware by Delaware residents.

5.7 **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. A signed copy of this Agreement delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

5 . 8 **Successors And Assigns.** Neither this Agreement nor any of the Investor's rights hereunder may be assigned by the Investor without the prior written consent of the Company, which may be withheld by the Company in its absolute discretion, provided that Investor may assign its rights hereunder to any of its direct or indirect wholly-owned subsidiaries without the consent of the Company, in which case such assignee shall be referred to herein as the Investor. Neither this Agreement nor any of the Company's rights or obligations hereunder may be assigned by the Company without the prior written consent of the Investor, which may be withheld by the Investor in its absolute discretion. Any change of control of either party or a permitted assignee hereunder shall constitute an attempted assignment of this Agreement and such attempted assignment shall be permitted only to the extent it complies with this Section 5.8. Any attempted assignment of this Agreement by Investor or the Company, or any of its rights or obligations herein, as the case may be, not in compliance with this Section 5.8 shall be void ab initio. Subject to the exceptions specifically set forth in this Section 5.8, the terms and conditions of this Agreement shall inure to the benefit of, and be binding upon, the respective heirs, successors, administrators, executors and assigns of the parties hereto (subject to the limitations on assignment contained in this Section 5.8).

5 . 9 **Counsel Fees.** If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

5.10 **Delays or Omissions.** No delay or omission to exercise any right, power or remedy accruing to the Investor, upon any breach or default by any other party under this Agreement, shall impair any such right, power or remedy of the Investor, nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies either under this Agreement, or by law or otherwise afforded to any Holder, shall be cumulative and not alternative or exclusive.

*[Signature Page Follows]*

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the Effective Date.

**THE COMPANY:**

AQUA METALS, INC.

By: /s/ Stephen R. Clarke

Stephen R. Clarke  
Chief Executive Officer

**THE INVESTOR:**

TYCO INTERNATIONAL FINANCE S.A.

By: /s/ Peter Schieser

Peter Schieser  
Managing Director

*[SIGNATURE PAGE TO INVESTOR RIGHTS AGREEMENT]*

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**GREENBERG TRAURIG, LLP**  
**3161 Michelson Drive, Suite 1000**  
**Irvine, California 92612**

February 27, 2017

Aqua Metals, Inc.  
1010 Atlantic Avenue  
Alameda, California 94501

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Aqua Metals, Inc., a Delaware corporation (the “**Company**”), in connection with the Registration Statement on Form S-3 (the “**Registration Statement**”) to be filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended, relating to the sale from time to time by certain selling stockholders of an aggregate of 939,005 shares (the “**Shares**”) of the Company’s \$0.001 par value common stock (“**Common Stock**”). The Shares may be sold or delivered from time to time as set forth in the Registration Statement, any amendment thereto, the prospectus contained therein (the “**Prospectus**”) and supplements to the Prospectus and pursuant to Rule 415 under the Securities Act.

You have requested our opinion as to the matters set forth below in connection with the Registration Statement. For purposes of rendering this opinion, we have examined the Registration Statement and we have made such other investigation as we have deemed appropriate. We have examined and relied upon certificates of public officials and, as to certain matters of fact that are material to our opinion, we have also relied on a certificate of an officer of the Company. We have not independently verified the matters set forth in such certificates.

We express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware and the federal laws of the United States of America.

Based upon and subject to the foregoing, it is our opinion that the Shares have been duly authorized and are validly issued, fully paid and non-assessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to our name under the caption “Legal Matters” in the prospectus made part of the Registration Statement.

Very truly yours,

/s/ GREENBERG TRAURIG, LLP

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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement of Aqua Metals, Inc. on Form S-3 of our report dated March 28, 2016, with respect to our audit of the consolidated financial statements of Aqua Metals, Inc. as of December 31, 2015. We also consent to the reference to our Firm under the heading "Experts" in such Prospectus.

/s/ Armanino LLP

San Ramon, California  
February 27, 2017

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