

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

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2023

or
 TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____
Commission file number: 001-37515

Aqua Metals, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

47-1169572
(I.R.S. Employer Identification
Number)

5370 Kietzke Lane, Suite 201.
Reno, Nevada 89511
(Address of principal executive offices)

(775) 446-4418
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act

Title of each class of stock:
Common Stock

Trading symbol
AQMS

Name of each exchange on which registered:
The Nasdaq Capital Market

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. Yes No

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

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging Growth Company

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

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

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

State the aggregate market value of voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter: \$92,731,305.

The number of shares of the registrant's common stock outstanding as of March 22, 2024 was 111,953,875.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the registrant's 2024 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A within 120 days of the registrant's year ended December 31, 2023 are incorporated herein by reference into Part III of this Annual Report on Form 10-K.

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CAUTIONARY NOTICE

This annual report on Form 10-K contains 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. Those forward-looking statements include our expectations, beliefs, intentions and strategies regarding the future. Such forward-looking statements relate to, among other things,

- our ability to have our Aqua Refining solutions gain market acceptance;
- our ability to acquire additional working capital on reasonable terms, as needed and on a timely basis.
- our intentions, expectations and beliefs regarding anticipated growth, market penetration and trends in our business;
- the timing and success of our plan of commercialization;
- our ability to demonstrate the operation of our AquaRefining process on a commercial scale;
- our ability to successfully apply our AquaRefining technology to the recycling of lithium-ion batteries;
- the effects of market conditions on our stock price and operating results;
- our ability to maintain our competitive technological advantages against competitors in our industry;
- our ability to maintain, protect and enhance our intellectual property;
- the effects of increased competition in our market and our ability to compete effectively;
- costs associated with defending intellectual property infringement and other claims;
- our expectations concerning our relationships with suppliers, partners and other third parties; and
- our ability to comply with evolving legal standards and regulations, particularly concerning requirements for being a public company and environmental regulations;

These and other factors that may affect our financial results are discussed more fully in “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in this report. Market data used throughout this report is based on published third party reports or the good faith estimates of management, which estimates are presumably based upon their review of internal surveys, independent industry publications and other publicly available information. Although we believe that such sources are reliable, we do not guarantee the accuracy or completeness of this information, and we have not independently verified such information. We caution readers not to place undue reliance on any forward-looking statements. We do not undertake, and specifically disclaim any obligation, to update or revise such statements to reflect new circumstances or unanticipated events as they occur, and we urge readers to review and consider disclosures we make in this and other reports that discuss factors germane to our business. See in particular our reports on Forms 10-K, 10-Q, and 8-K subsequently filed from time to time with the Securities and Exchange Commission.

PART I

Item 1. Business

Background

We were formed as a Delaware corporation on June 20, 2014, for the purpose of engaging in the business of recycling metals through a novel, proprietary and patent-pending process that we developed and named “AquaRefining.” In 2015, Aqua Metals developed a breakthrough metal recycling technology that utilizes a clean, closed-loop process that can produce high-purity metal. We believe this innovative approach can deliver raw materials back into the manufacturing supply chain while reducing emissions and toxic byproducts and creating a safer work environment. In particular, the modular AquaRefining systems have already demonstrated the ability to recover critical minerals from both lead acid batteries and lithium-ion batteries and can reduce the cost and environmental impact of battery recycling.

Aqua Metals has a history of battery recycling, having first owned and operated a pilot lead acid battery recycling facility between 2017 and 2019. This breakthrough technology was initially applied in the lead acid battery (LAB) recycling industry, building the first integrated recycling system for breaking LAB and recovering pure metal. In 2019, we operated our demonstration AquaRefinery at commercial quantity production levels and produced over 35,000 ‘AquaRefined’ ingots operating twenty-four hours a day, seven days a week for sustained periods of time.

In February 2021, we announced our entry into the lithium-ion battery (LiB) recycling market through a key provisional patent we filed that applies the same innovative AquaRefining approach. In August 2021, we announced we had established our Innovation Center in the Tahoe-Reno Industrial Center (TRIC) focused on applying our proven technology to LiB recycling research, development and prototyping. Our strategic decision to apply our proven clean, closed-loop hydrometallurgical and electrochemical recycling experience to lithium-ion battery recycling is designed to meet the growing demand for critical metals driven by the global transition to electric vehicles; growth in Internet data centers; and alternative energy applications including solar, wind, and grid-scale storage.

During the first half of 2022, we announced our ability to recover copper, lithium hydroxide, nickel, cobalt and manganese dioxide from lithium-ion battery ‘black mass’ at bench scale at the Company’s Innovation Center. During 2022, we built our fully-integrated pilot system, located within the Company’s Innovation Center, which is designed to enable Aqua Metals to be the first company in North America to recycle battery minerals from black mass, sell them in the U.S. and position the Company as the first sustainable LiB recycler in North America to align with the U.S. government’s goal of retaining strategic battery minerals within the domestic supply chain.

During 2022, we conducted environmental comparisons based on Argonne National Lab’s modeling of lithium battery supply chains – called EverBatt. The initial results indicate that AquaRefining is a cleaner and more sustainable approach to LiB recycling, producing far less CO2 waste streams than smelting or chemical-driven hydrometallurgical processes currently on the market. In December 2022, we completed equipment installation and began to operate our first-of-a-kind LiB recycling facility, utilizing renewable electricity as the reagent to recycle instead of intensive chemical processes, fossil fuels, or high-temperature furnaces. In January of 2023, Aqua Metals recovered its first metals from recycling lithium batteries using the patent-pending Li AquaRefining process.

In February 2023, we acquired a five-acre recycling campus at the Tahoe Reno Industrial Center (TRIC). When fully developed, the facility we envision is designed to process up to 10,000 tonnes of lithium-ion battery material each year using our proprietary Li AquaRefining technology. Subject to our receipt of the required additional capital, we expect to complete development of phase one, including all equipment installation, by mid-2024 and to commence the commissioning and operation at the new campus in the second half of 2024. The Company is planning for a phased development of the campus, beginning with the already commenced redevelopment of an existing building on-site into the first commercial-scale Li AquaRefinery, targeting 3,000 tons per annum (tpa) capacity in phase one. In January through March of 2024, we have made significant progress on the construction of the planned first phase of the commercial Li AquaRefinery.

Unless otherwise indicated, the terms “Aqua Metals,” “Company,” “we,” “us,” and “our” refer to Aqua Metals, Inc. and its wholly owned subsidiaries.

All references in this report to “ton” or “tonne” refer to a metric ton, which is equal to approximately 2,204.6 pounds.

Overview

Aqua Metals is seeking to reinvent metal recycling with its patented and patent-pending AquaRefining™ technologies. Aqua Metals is focused on developing cleaner and safer metals recycling through innovation. We believe Aqua Metals can expand the development of breakthrough technologies for sustainable metal recycling and deliver high-value critical minerals back into the manufacturing supply chain while reducing emissions and toxic byproducts and creating much safer work environments.

Aqua Metals has invested in breakthrough metals recycling methodologies that we believe are environmentally responsible, economically competitive, and will help retain critical strategic metals within the U.S. while enabling domestically produced, sustainably produced, recycled metals to enter the supply chain and lower sole reliance on unsafe and toxic mining operations. Since 2015, Aqua Metals has developed breakthrough metal recycling technologies that utilize a clean, closed-loop process that can produce ultra-high purity metals. AquaRefining is designed to deliver raw materials back into the manufacturing supply chain, and replaces the need for polluting furnaces and hazardous chemicals with electricity-powered electroplating to recover valuable metals and materials from spent batteries with higher purity, lower emissions, and minimal waste.

We believe Aqua Metals' regenerative electro-hydrometallurgical recycling method potentially offers a substantial improvement over traditional pyrometallurgical and hydrometallurgical recycling techniques, which produce much higher emissions, lower recovery rates, and significant landfill waste. We believe the AquaRefining process has the potential to vastly reduce the environmental impact of recycling lithium batteries as compared to other processes while providing a higher yield of high-purity metals essential for the burgeoning US battery manufacturing industry.

We are in the process of demonstrating that Li AquaRefining can create the highest quality and highest yields of recovered minerals from lithium-ion batteries, with lower waste streams and lower costs than alternatives. With the proven ability to recover valuable metals from lithium-ion batteries at our pilot facility in the TRIC, our goal is to demonstrate our ability to process commercial quantities of high-purity lithium hydroxide and/or carbonate, nickel, cobalt, manganese dioxide, and copper in pure forms that can be sold to the general metals and superalloy markets, and can be made into battery precursor compound materials with proven processes that are already used in the battery industry.

The Company is also exploring additional novel applications of AquaRefining across metals recycling industries at our Innovation Center, including recycling emerging battery chemistries and opportunities to develop additional products for sale to customer specifications.

Our Markets

Aqua Metals' AquaRefining process produces high purity metals and alloys that can be returned into the battery manufacturing supply chain or sold into metals markets for use across various advanced manufacturing industries. This combination of approaches and the broad applicability of the end products we aim to produce enables Aqua Metals to create low-emissions inputs for the battery supply chain or to help decarbonize other sectors that utilize these critical metals and superalloys – creating a more resilient and adaptable business model for the Company as a whole.

Metals Markets

Most of the minerals and metals that can be recovered in the recycling of batteries of various chemistries are also globally traded commodities. Lead, copper, cobalt, nickel, and other metals can be recovered and sold in pure metal form into these markets at the prevailing price or sold directly to a customer at a price set relative to the current market price.

For example, battery metals are globally traded metal commodities. Metals such as lead for LABs and nickel, cobalt, copper and lithium for LIBs are the essential components for the world's rechargeable batteries. These metals are globally traded primarily on the London Metals Exchange (LME) and the Shanghai Metals Exchange (SHME) in China also trades these elements. In their pure forms, the other minerals that Aqua Metals intends to recover from spent batteries can be sold into these global markets. Unlike lead markets where recycled mineral content achieves up to 90% of new LAB batteries in a mature industry, lithium and related metals recycling currently achieves only 1-3% recycled mineral content of new LiB batteries, relying almost entirely on newly mined ore and refining to meet global demand.

As noted above, although metals are traded as a commodity on the various global exchanges, the major sales are directly between producers/traders and users (whom are typically battery manufacturers). The LME daily price is used as the benchmark in forming the basis of physical trades, forward contracts, and hedge strategies for both primary and secondary metals, in metal form. Based on market and product knowledge with buyers of metals in the U.S. and global metals markets, different grades (termed alloys) of metal are traded at a premium to the base LME price. Metal alloys, which are typically designed specifically for the customer, are also sold at a premium above the base LME, whereas byproducts (generally lower purity, compounds, or scrap) are traded at a discount to the LME as they are based on the underlying metals content and its form.

Lead Acid Batteries

According to Grand View Research, annual lead acid battery sales are expected to grow to \$84 billion by 2025, driving demand for lead. Similar prospects for healthy growth in the lead industry continue to be published and support continued growth in demand for lead for at least the next 15 years. We believe that grid storage and other energy storage applications linked to renewable energy (solar and wind) will also generate increased demand for LABs, where low cost, safety and reliability will make them attractive options.

The increase in LAB manufacturing in general and particularly in China, India, and Southeast Asia, has increased demand for lead, putting pressure on global recycling networks to meet this demand. At present, we believe that much of the LAB recycling performed outside of the U.S., Canada, the EU, Japan, and Australia is carried out in outdated facilities with poor environmental standards and insufficient enforcement. China, India, Pakistan, and South America appear to be moving toward tougher regulation and enforcement. Even the cleanest incumbent lead recycling operations produce more pollution and worker safety challenges than our lead AquaRefining alternative. We believe that further aging of incumbent facilities coupled with ever tightening pollution and worker safety regulations will drive a demand in all markets for less polluting LAB recycling processes.

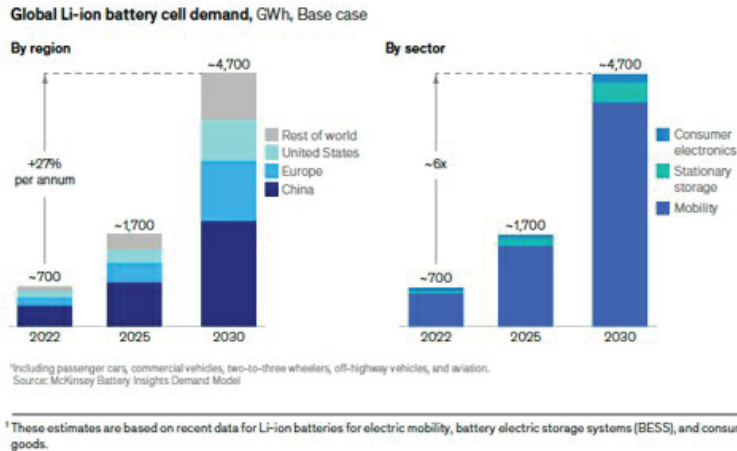
The Lithium Battery Market

Global demand for Li-ion batteries is expected to soar over the next decade, with the number of GWh required increasing from about 700 GWh in 2022 to around 4.7 TWh by 2030 (Figure 1 below). Batteries for mobility applications, such as electric vehicles (EVs), will account for the vast bulk of demand in 2030—about 4,300 GWh; an unsurprising trend seeing that mobility is growing rapidly. This is largely driven by three major drivers:

- A regulatory shift toward sustainability, which includes new net-zero targets and guidelines, including Europe’s “Fit for 55” program, the US Inflation Reduction Act, the 2035 ban of internal combustion engine (ICE) vehicles in the EU and in the State of California in the U.S., and India’s Faster Adoption and Manufacture of Hybrid and Electric Vehicles Scheme.
- Greater customer adoption rates and increased consumer demand for greener technologies (up to 90 percent of total passenger car sales will involve EVs in selected countries by 2030).
- Announcements by 13 of the top 15 OEMs to discontinue production of ICE vehicles and achieve new emission-reduction targets.

Figure 1: Growth of the Li-ion Battery Market Battery

Li-ion battery demand is expected to grow by about 33 percent annually to reach around 4,700 GWh by 2030.

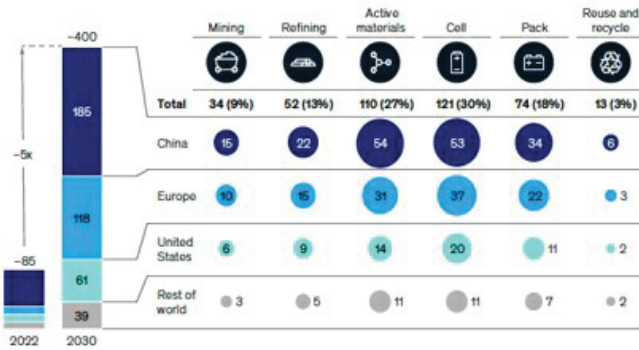


Battery energy storage systems (BESS) are expected to have a CAGR of 30 percent, and the GWh required to power these applications in 2030 will be comparable to the GWh needed for all applications today. China could account for 45 percent of total Li-ion demand in 2025 and 40 percent in 2030—most battery-chain segments are already mature in that country. Nevertheless, growth is expected to be highest globally in the EU and the United States, driven by recent regulatory changes, as well as a general trend toward localization of supply chains. In total, at least 120 to 150 new battery factories will need to be built between now and 2030 globally to have sufficient capacity to meet predicted demand. In line with the surging demand for Li-ion batteries across industries, it is projected that revenues along the entire value chain will increase 5-fold, from about \$85 billion in 2022 to over \$400 billion in 2030 (Figure 2). Active materials and cell manufacturing may have the largest revenue pools. Mining is not the only option for sourcing battery materials since recycling is also an option. Although the recycling segment is expected to be relatively small in 2030, it is projected to grow more than three-fold in the following decade, when more batteries reach their end-of-life and greater quantities of manufacturing scrap material become available for recycling.

Figure 2: Li-ion Revenue Opportunities through 2030

Our model projects that the Li-ion battery value chain will provide revenue opportunities of over \$400 billion by 2030.

Revenues, base case 2030, \$ billion



Source: McKinsey Battery Insights, 2022

Lithium Batteries

EV batteries are powered by a battery pack made up of individual cells. Each cell has 4 components: the cathode, anode, separator, and electrolyte. Lithium-ion batteries use different raw materials for each of the components. The most common material used for the anode is graphite. The most widely used metals for the cathode is metal oxides that are combinations of lithium, cobalt, nickel, manganese, and aluminum. The electrolyte is generally made using acidic salts and solvents such as sulfuric acid and there are also solid-state silicon-based alternatives under development and early deployments have begun. The separator is usually created using a porous, polyolefin material like polyethylene or polypropylene.

Lithium-ion battery recycling is the method of taking EV batteries and splitting it into its components, ultimately into the original raw materials (lithium, nickel, cobalt, etc.) that can be reused in new batteries. While making lithium-ion batteries for EVs is important to address climate change, the batteries themselves are harmful to the environment if left in landfills or burned. Currently, only a small fraction of lithium-ion batteries are recycled and that must get close to 100% both to avoid environmental issues and to recapture the critical minerals in those spent batteries to feed the massive demand growth curve. Battery recycling helps address this problem, but current pyro-based battery recycling technology (smelting) also creates harmful emissions, potentially creating new climate problems faster than they are being solved. There are alternative hydro-based technologies available and rely on older methodologies that are known to create significant waste streams, potentially with more waste than product recovered, which have their own negative environmental and economic impacts.

Black Mass

Lithium-ion batteries are comprised of valuable metals such as lithium, copper, manganese, cobalt, and nickel. Once a battery is retired, the batteries can be collected, fully discharged, then shredded and base metals are separated to prepare them for recycling. This shiny, metallic mixture is what is called ‘black mass’—and it contains all the valuable metals that make up battery anodes and cathodes, the most expensive parts of a battery and the companies that collect and process batteries into black mass are referred to as ‘shredders’. The typical black color is due to the high concentrations of graphite contained in the anodes of batteries, which has a very dark black color. Black mass makes up about 40-50% of the total weight of an EV battery. Materials like the binder, copper, electrolytes, plastics, aluminum, and steel have been physically separated out by shredders before being recycled.

There are two main processes to producing black mass:

1. Pyrometallurgy: some black mass producers will use high temperatures to burn off unwanted materials like plastics and remaining electrolyte. This can create hazardous emissions and waste that must be captured or mitigated, and result in less recovered material.
2. Hydrometallurgy: many producers use solution-based techniques—using water, chemicals and electricity to crush and separate the materials from a battery. This eliminates the need for polluting furnaces and energy intensive processing, creating a lower-carbon black mass.

Aqua Metals specifically partners with producers that use non-pyro processes in order to create black mass to meet their own objectives for creating low-carbon recycled materials. The exact composition of black mass can vary considerably based on a number of factors. To start, there are many different types of lithium-ion batteries and manufacturing scrap forms, which will revert back to a mix of different elements and different ratios, including lithium, nickel, iron, titanium, copper, cobalt, manganese, and others (their use of lithium is the commonality).

Each manufacturer also has their own specific ‘recipe’ for their cathodes, cell type/form factors, as well as module type and pack assembly for different applications (cell phones, laptops, electric vehicles, etc.). Currently, the most popular types of lithium-ion batteries in the world incorporate significant amounts of nickel, cobalt, lithium, and manganese—so black mass produced today will typically have varying concentrations of each.

AquaRefining Process

We developed AquaRefining to be a cleaner and modular alternative to smelting and chemical-based recycling methods. Our process has two key elements, both of which are integral to our issued patents and pending-patent applications. The first is our use of proprietary, non-toxic solvents that dissolves metal compounds. The second is a proprietary electrochemical process and our modular Aqualyzer cells that selectively target each critical element and converts the dissolved metal compounds into high purity metals and/or salts.

The AquaRefining process begins with the processing of crushed used batteries either in the form of paste (for LAB) or, black mass (for LIB). The active materials are first processed to remove sulfur and then dissolved in our solvent. Metals are plated from the solvent using our patented and patent-pending process allowing the solvent to be reused.

We have demonstrated at bench scale and subsequently in our pilot facility that our lithium battery AquaRefining process can generate cobalt, lithium hydroxide or carbonate, copper, nickel, and manganese dioxide from lithium-ion battery black mass. A significant benefit of our AquaRefining process is that it can produce higher yields of higher purity, and thus higher value product than that derived from primary smelters with product from secondary sources.

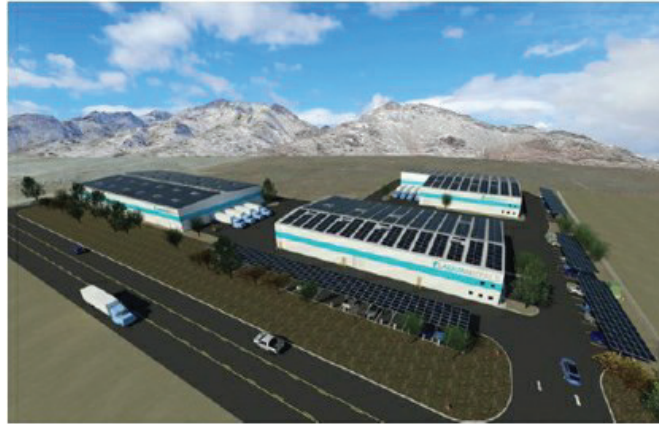
Another significant benefit of our process is that we designed our AquaRefining equipment to be manufactured on a purpose-built production line in standard sized Aqualyzers. This is not possible with the smelting process, as smelters need to be constructed on site. This gives us the ability to provide AquaRefining systems with varying capacities to meet the specific needs of potential customers and suppliers. We have also developed an integrated software and portal called PureMetrics that keeps track of production and key operating metrics.

Recycling is subject to a variety of domestic and international regulations related to hazardous materials, emissions, employee safety and other matters. While our operations will be subject to these regulations, we believe that one of our potential advantages will be our ability to conduct battery recycling operations with less regulatory cost and burden than smelting operators due to the nature of our process. One of our key initiatives is and will continue to be, to educate regulators and the public as to the environmental benefits of AquaRefining. We believe that we have the potential to develop a business model that offers the opportunity to conduct, in an environmentally friendly manner, an important recycling activity that historically has been conducted in an often highly polluting manner.

Project Site

Aqua Metals is in the process of building a new lithium-ion battery recycling facility to be located within Storey County, Nevada (the “Project”). The Project is located at 2955 & 2999 Waltham Way, McCarran, NV 89434 (the “Commercial Facility”). Aqua Metals operates a demonstration scale facility at 60 Denmark Drive, McCarran, NV 89434 (the “Innovation Center”) which utilizes the equivalent equipment and technology as is expected to be constructed and operated in the Project.

Figure 3: Aqua Metals Site Rendering



Highlights include:

- Five-acre campus designed to ultimately process more than 20 million pounds of lithium-ion battery material annually (10,000tpa)
- Tahoe-Reno Industrial Center campus at the heart of Nevada’s lithium battery supply chain
- Foreign Trade Zone designation
- Rendering of existing building and additional land available for future expansion

Black mass materials secured to reach commercial scale in 2024, and operate into 2025.

Our Business Model

Aqua Metals is engaged in the business of applying its commercialized clean, water-based recycling technology principles to develop the clean and cost-efficient recycling solutions for both lead and lithium-ion (“Li”) batteries. Our recycling process is a patented hydrometallurgical and electrochemical technology that is a novel, proprietary and patented process we developed and named AquaRefining. AquaRefining is a low-emissions, closed-loop recycling technology that replaces polluting furnaces and hazardous chemicals with electricity-powered electroplating to recover valuable metals and materials from spent batteries with higher purity, lower emissions, and with minimal waste. The “Aqualyzers” cleanly generate ultra-pure metal one atom at a time, closing the sustainability loop for the rapidly growing energy storage economy.

We are applying our sustainable recycling technology principles with the goal of developing the cleanest and most cost-efficient recycling solution for lithium-ion batteries. We believe our process has the potential to produce higher quality products at a lower operating cost without the damaging effects of furnaces and greenhouse emissions. We expect to recover lithium hydroxide or lithium carbonate, copper, nickel, cobalt, and other compounds in a salable form to either be sold directly to lithium battery CAM manufactures or the commodities market. Aqua Metals estimates the total addressable market for lithium-ion battery recycling will be approximately \$9 billion by 2025 and grow to exceed lead battery recycling by the end of the decade. Unlike the mature lead recycling market, the deployed lithium-ion battery recycling infrastructure to serve market growth does not exist today.

Our business strategy is based on the pursuit of building and operating Li AquaRefining recycling capacity to meet the growing demand for critical metals in lithium-ion batteries driven by innovations in automobile batteries, growth in internet data centers, and alternative energy applications, including solar, wind, and grid-scale storage.

We are in the process of demonstrating that Li AquaRefining, which is fundamentally non-polluting, can create the highest quality and highest yields of recovered minerals from lithium-ion batteries with lower waste streams and lower costs than existing alternatives. Throughout 2023 and now into 2024, we have demonstrated at our pilot facility our ability to recover key valuable minerals in lithium-ion batteries, such as lithium hydroxide or lithium carbonate, copper, nickel, cobalt, and other compounds. Our goal is to process commercial quantities of nickel, cobalt, and copper in a pure metal form that can be sold to the general metals and superalloy markets and can be made into battery precursor compound materials with known processes already used in the mining industry. We have operated the first Li AquaRefining pilot plant throughout 2023. The location for the pilot demonstration facility is currently the Innovation Center with expansion to happen at our new 5-acre recycling campus to commercial quantities. Once fully completed, our commercial facility is designed to process ~10,000 tonnes / year or more of battery materials, with our first phase, which would be enough material to build ~100,000 average EVs or ~400,000 average home energy storage systems. We are proceeding with a phased development approach, and commenced phase one of our campus in 2023, with a target capacity of 3,000 tonnes per year.

Our focus for the lithium market includes operating our first-of-a-kind lithium battery recycling facility, utilizing electricity to recycle instead of intensive chemical processes, fossil fuels, or high-temperature furnaces. We are also exploring partnership and/or joint venture agreements, particularly as our Li AquaRefining matures. We believe that Aqua Metals is in a position to become one of the few critical minerals recovery players for which our environmental and economic value proposition should generate both great commercial wins and potentially government grants to accelerate our expansion and progress.

The market for lithium-ion batteries is global in scale but local in nature and execution, with large differences in local regulation, custom and practice, and access to transportation and electricity costs. In some regions, it is highly regulated, and in others it is not. Consequently, we are evolving our business model to commercialize our technology optimally across multiple locations.

Competition

Our development of recycling technology for lithium-ion batteries is a unique approach to extracting the high-value metals compared to the array of other potential solutions under development. Currently, smelting is the only commercially proven process for recycling lithium-ion batteries. The smelting process utilizes multiple high emissions steps with low yields to produce materials that typically require further refining before being utilized to manufacture new batteries. Over the next decade and beyond, when the volume of used batteries becomes significant, smelting will likely not be a viable solution due to the negative environmental impact and likelihood of regulatory restrictions on emissions. The other technologies currently under development utilize a predominately hydrometallurgical approach that consumes significant amounts of chemicals to extract the metals resulting in high cost and excessive waste streams. Our approach is a hybrid of hydrometallurgical and electrometallurgical processes like the process we have commercialized for lead, we call it “Li AquaRefining.” We believe, and our lab scale and then bench scale and now pilot scale R&D supports, that Li AquaRefining requires less chemicals, produces less waste streams, and creates higher purity products at a lower cost as compared to both smelting and standard hydrometallurgy.

The lithium-ion battery recycling market is significantly different from that of the lead recycling market in that it is a nascent industry. With no predominant technology to displace, our goal is to enable new and existing recyclers across the globe with Li AquaRefining as a best-in-class solution for meeting the supply chain demands of the lithium-ion battery industry as well as meeting the environmental needs of the planet and the corporations seeking to achieve net zero emissions.

The competitive advantages of the Aqua Metals project include:

- Replaces furnaces and heavy chemical use with 100% electricity-powered and closed-loop recycling, creating fundamentally non polluting, cost-efficient solution that generates minimal waste
- AquaRefining recovers all valuable materials, including Lithium Hydroxide, Lithium Carbonate, and Manganese Dioxide, which are not recovered by competing methods
- Recovers the high-value metals lost in smelting (like lithium and manganese), and produces high purity products
- Only Li-ion recycling method with pathway to net-zero operations
- Strong IP protection: 73 global patents; 43 patents pending
- Only electro-hydrometallurgy recycler in North America
- Safer work environment, less hazardous materials, eliminates constant trainloads of chemicals
- Massive and growing global addressable market
- Greenfield opportunity for partnerships and strategic alliances

Intellectual Property Rights

We regard the protection of our technologies and intellectual property rights as an important element of our business operations and crucial to our success. We endeavor to generate and protect our intellectual property assets through a series of patents, trademarks, internal and external policy and procedures and contractual provisions.

Patent Portfolio

Currently, we have secured 3 US patents, 32 international patents, and 3 allowances (international). In addition to the US patents, we have international patents/allowances in the African Regional Intellectual Property Organization, African Intellectual Property Organization, Australia, Brazil, Canada, Chile, China, the Eurasian Patent Organization, European Union, Honduras, India, Indonesia, Japan, Malaysia, Mexico, Peru, South Korea, South Africa, Ukraine, and Vietnam. We also have 32 US and foreign patent applications pending with patent applications pending in 16 additional non-US jurisdictions, across six distinct patent applications relating to certain elements of the technology underlying our AquaRefining process and related apparatus and chemical formulations. The claims of the granted patents substantially address the same subject matter and are drawn to various aspects of processing lead or lithium materials using an aqua refining process. Differences in the claim number and scope are due to local rules and practice as well as the target metal.

We intend to continue to prepare and file domestic and foreign patent applications covering expanding aspects and applications of our technology, as circumstances warrant.

There can be no assurance that any patents will issue from any of our current or any future applications. Also, any patents that may issue may not survive a legal challenge to their scope, validity, or enforceability, or provide significant protection for us. Competitors may work around our patents, so they are not infringing. Our patent portfolio and our existing policy and procedures safeguarding our trade secrets nonetheless may face challenges so that our competitors can copy our AquaRefining process.

Trademark Portfolio

We have filed for trademark registration in the US and foreign countries for the following trademarks:

- AQUA METALS (11 foreign countries)
- SQUAREFINING (10 foreign countries)
- AQMS (US only)
- SQUAREFINERY (9 foreign countries)

Trade Secrets and Contract Protection

We have developed our internal policy and procedures in safeguarding our trade secrets and proprietary information. Our procedures generally require our employees, consultants, and advisors to enter into confidentiality agreements. These agreements provide that all confidential information developed or made known to the individual during the course of the individual’s relationship with us is to be kept confidential and not disclosed to third parties except under specific circumstances. In the case of our employees, the agreements provide that all of the technology that is conceived by the individual during the course of employment is our exclusive property. The development of our technology and many of our processes are dependent upon the knowledge, experience, and skills of key scientific and technical personnel.

Government Regulation

Our operations and the operations of our licensees in the United States will be subject to the federal, state, and local environmental, health and safety laws applicable to the reclamation of LABs and lithium based batteries. While the reclamation process itself is generally not subject to federal permitting requirements, depending on how any particular operation is structured, our facilities and the facilities of our licensees may have to obtain environmental permits or approvals from federal, state or local regulators to operate, including permits or regulatory approvals related to air emissions, water discharges, waste management, and the storage of batteries on-site should that become necessary. We may face opposition from local residents or public interest groups to the installation and operation of our or our licensee's facilities. Failure to secure (or significant delays in securing) the necessary approvals could prevent us from pursuing some of our planned operations and adversely affect our business, financial results, and growth prospects.

In addition to permitting requirements, our operations and the operations of our licensees are subject to environmental health, safety and transportation laws and regulations that govern the management of and exposure to hazardous materials such as the lead, acids, and other metals involved in reclamation. These include hazard communication and other occupational safety requirements for employees, which may mandate industrial hygiene monitoring of employees for potential exposure to lead. Failure to comply with these requirements could subject our business to significant penalties (civil or criminal) and other sanctions that could adversely affect our business. Changes to these regulatory requirements in the future could also increase our costs, require changes in or cessation of certain activities, and adversely affect the business.

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

As our business expands outside of the United States, our licensed operations will be subject to the environmental, health and safety laws of the countries where we do business, including permitting and compliance requirements that address the similar risks as do the laws in the United States, as well as international legal requirements such as those applicable to the transportation of hazardous materials. Depending on the country or region, these laws could be as stringent as those in the US, or they could be less stringent or not as strictly enforced. In some countries in which we are interested in expanding our business, such as South America, Taiwan and China, the relevant environmental regulatory and enforcement frameworks are in flux and subject to change. Therefore, while compliance with these requirements will cause our business to incur costs, and failure to comply with these requirements could adversely affect our business, it is difficult to evaluate such potential costs or adverse impacts until such time as we decide to initiate operations in particular countries outside the United States.

Employees

As of the date of this report, we employ 53 people on a full-time basis. None of our employees are represented by a labor union.

Financial and Segment Information

We operate our business as a single segment, as defined by generally accepted accounting principles. Our financial information is included in the consolidated financial statements and the related notes.

Available Information

Our website is located at www.aquametals.com and our investor relations website is located at <https://ir.aquametals.com/>. Copies of our Annual Report on Form 10-K, Quarterly Report on Form 10-Q, Current Reports on Form 8-K, and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, are available, free of charge, on our investor relations website as soon as reasonably practicable after we file such material electronically with or furnish it to the Securities and Exchange Commission, or the SEC. The SEC also maintains a website that contains our SEC filings. The address of the site is www.sec.gov. The contents of our website are not intended to be incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the SEC, and any references to our websites are intended to be inactive textual references only.

Item 1A. Risk Factors

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

Risks Relating to Our Business and Operations

We have a limited operating history and limited revenue producing operations and are currently undertaking a reset of our business strategy. Therefore, it is difficult for potential investors to evaluate our business. We formed our corporation in June 2014. From inception through December 31, 2023, we generated a total of \$11.7 million of revenue, all of which was derived primarily from the sale of lead compounds and plastics and, to a lesser extent, the sale of lead bullion and AquaRefined lead, and all but approximately \$310,000 of which was derived prior to January 1, 2020 at our former LAB recycling facility. In the last two years, the business has been focused on completing the research and development of the application of our AquaRefining technology to the recycling of lithium-ion batteries and operating a lithium-ion recycling pilot plant. Based upon our success to date in recovering high value metals from lithium-ion batteries using our AquaRefining technology, we have commenced the development of a five-acre recycling campus designed to process up to 10,000 tonnes of lithium-ion battery material annually. While we intend to continue to pursue our licensing business model, the development of our lithium-ion battery recycling facility represents a significant change in our business strategy and course of operations. As of the date of this report, we estimate that we will begin to realize revenues from lithium-ion battery recycling in 2024, however we are unable to estimate when we expect to commence any meaningful commercial or revenue producing operations from either our licensing model or our lithium-ion battery recycling facility. Our limited operating history makes it difficult for potential investors to evaluate our technology or prospective operations and we are, for all practical purposes, an early-stage company subject to all the risks inherent in the initial organization, financing, expenditures, complications, and delays in a new business, including, without limitation:

- our ability to successfully apply, and realize the expected benefits of applying, our AquaRefining technology to the plating of high value metals found in lithium-ion batteries, including cobalt, nickel, and copper;
- the timing and success of our plan of commercialization and the fact that we have not entered into a commercial license for our AquaRefining technology and only have recently commenced the build out of our lithium-ion recycling facility;
- our ability to successfully develop our proposed lithium-ion recycling facility;
- our ability to demonstrate that our AquaRefining technology can recycle either LABs or lithium-ion batteries on a commercial scale; and
- our ability to license our AquaRefining process and sell our AquaRefining equipment to recyclers of LABs and lithium-ion batteries.

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

We will need additional financing to execute our business plan and fund operations, which additional financing may not be available on reasonable terms or at all. As of December 31, 2023, we had total cash of \$16.5 million and working capital of \$13.7 million. As of the date of this report, we believe that we will require additional capital in order to fund our current level of ongoing costs and our proposed business plan over the next 12 months as we move forward with our business strategy. We intend to acquire the necessary capital through debt financing or through the sale of equity. Funding that includes the sale of our equity may be dilutive. If such funding is not available on satisfactory terms, we may be unable to further pursue our business plan and we may be unable to continue operations, in which case you may lose your entire investment.

The report of our independent registered public accounting firm for the year ended December 31, 2023 states that there is substantial doubt about our ability to continue as a going concern within one year after the date that the financial statements are issued.

We recently commenced the development of a lithium-ion recycling facility, however we are in the early stages of developing the facility and there can be no assurance that we will be able to successfully develop the facility or, if we do, realize the expected benefits of the facility. In January 2023, we announced our plans to conduct the phased development of a five-acre recycling campus in the Tahoe-Reno Industrial Center, or TRIC, in McCarran, Nevada. The facility is designed, when fully developed, to process up to 10,000 tonnes of lithium-ion battery material each year using our proprietary AquaRefining technology. On February 1, 2023, we closed on the acquisition financing and purchased the five-acre site, plus the existing 21,000 square foot building, and as noted elsewhere, in third quarter of 2023 we raised a net of \$22.9 million from the sale of our common stock. We believe the net proceeds will allow us to commence the Phase One build-out of the facility. However, we will need additional financing to complete the build-out of Phase One, which we intend to pursue through conventional non-dilutive loans, potential government backed debt offerings, government grants or through the sale of our common stock via our current at-the-market offering. Subject to our receipt of development financing on a timely basis, we expect to complete development of Phase One, including all equipment installation, by the end of first half of 2024 and to commence operations at the new campus in the second half of 2024. However, there can be no assurance we will be able to do so.

Our business is dependent upon our successful implementation of novel technologies and processes and there can be no assurance that we will be able to implement such technologies and processes in a manner that supports the successful commercial roll-out of our business model. While much of the technology and processes involved in battery recycling operations are widely used and proven, our AquaRefining process is largely novel and, to date, has been demonstrated on a modest scale of operations. While we have shown that our proprietary technology can produce AquaRefined metals from batteries on a small scale, we have not processed recycled batteries on a commercial scale. We recently commenced the development of a five-acre recycling campus designed to process lithium-ion batteries, however there can be no assurance that we will be able to complete the development of the recycling facility or, if we are able to do so, that we will be able to successfully process lithium-ion batteries on a commercial scale. In this regard, as we developed our LAB recycling facility at TRIC during 2018 and 2019, there can be no assurance that we will not encounter unforeseen complications as we pursue our revised business model.

Our business model is new and has not been proven by us or anyone else. We are engaged in the business of producing recycled lead from LABs and high value metals from lithium-ion batteries through a novel, and proven on a modest scale, technology. While the production of recycled batteries is an established business, to date virtually all recycled metals have been produced by way of traditional smelting processes. To our knowledge, no one has successfully produced recycled batteries in commercial quantities other than by way of smelting. In addition, neither we nor anyone else has ever successfully built a production line that commercially recycles batteries without smelting. Further, there can be no assurance that either we will be able to produce AquaRefined metals from batteries in commercial quantities at a cost of production that will provide us with an adequate profit margin. The uniqueness of our AquaRefining process presents potential risks associated with the development of a business model that is untried and unproven.

We have initiated the research and development of the application of our AquaRefining technology to the recycling and recovery of lithium-ion batteries, however there can be no assurance that our efforts will be successful. In September 2021, we announced the establishment of our Innovation Center, in McCarran, Nevada, focused on applying our AquaRefining technology to lithium-ion battery recycling research and development and prototype system activities. In 2021, we filed a provisional patent for recovering high-value metals from recycled lithium-ion batteries to complement the patents for AquaRefining. At the end of 2022 and throughout 2023, we successfully recovered all valuable materials from spent lithium batteries at production scale using our AquaRefining technology: lithium hydroxide, copper, nickel, cobalt, and manganese dioxide. We also operated our pilot plant throughout 2023. We are continuing our efforts to improve our Li AquaRefining process; however, there can be no assurance that our efforts will be successful or that we will be able to conduct the recycling and recovery of the high value metals from lithium-ion batteries on a commercial scale.

Our business strategy includes licensing arrangements and entering into joint ventures and strategic alliances, however as of the date of this report we have no such agreements in place and there can be no assurance we will be able to do so. Failure to successfully integrate such licensing arrangements, joint ventures, or strategic alliances into our operations could adversely affect our business. We propose, as one of our business strategies, to commercially exploit our AquaRefining process by licensing our technology to third parties and entering into joint ventures and strategic relationships with parties involved in the manufacture and recycling of batteries. We are also currently seeking to negotiate agreements with others. However, there can be no assurance we will be able to conclude a licensing agreement with any partners, or that we will be able to do so on terms that benefit us. In 2023, we exited our proposed collaboration with LINICO by way of the sale of our LINICO common stock to LINICO's parent, Comstock Inc., and we ceased the development of recycling operations at the Taiwan facilities of ACME Metals. Our ability to enter into licensing, joint ventures and strategic relationships with third parties will depend on our ability to demonstrate the technological and commercial advantages of our AquaRefining process, of which there can be no assurance. Also, even if we are able to enter into licensing, joint venture or strategic alliance agreements, there can be no assurance that we will be able to obtain the expected benefits of any such arrangements. In addition, licensing programs, joint ventures and strategic alliances may involve significant other risks and uncertainties, insufficient revenue generation to offset liabilities assumed and expenses associated with the transaction, potential additional challenges in protecting our intellectual property, and unidentified issues not discovered in our due diligence process, such as product quality, technology issues and legal contingencies. In addition, we may be unable to effectively integrate any such programs and ventures into our operations. Our operating results could be adversely affected by any problems arising during or from any licenses, joint ventures or strategic alliances.

Even if our licensees are successful in recycling batteries using our processes, there can be no assurance that the AquaRefined recycled metals will meet the certification and purity requirements of the potential customers. A key component of our business plan is the production of recycled metals through our AquaRefining process. Our customers will require that our AquaRefined metals meet certain minimum purity standards and, in all likelihood, require independent assays to confirm the metal's purity. As of the date of this report, we have produced limited quantities of AquaRefined metals. We have not produced AquaRefined metals in significant commercial quantities and there can be no assurance that we will be able to do so or, that such metals will meet the required purity standards of our customers. Further, while we have recently commenced the application of our AquaRefining process towards the recovery of high value metals found in lithium-ion batteries, such as cobalt, nickel, lithium hydroxide, lithium carbonate, copper, and manganese dioxide, we have only recently begun the development of recycling of lithium-ion batteries, and there can be no assurance that our efforts will be successful or that we will be able to conduct the recycling and recovery of the high value metals from lithium-ion batteries on a commercial scale.

While we have been successful in producing AquaRefined metals in small volumes, there can be no assurance that either we or our licensees will be able to replicate the process, along with all of the expected economic advantages, on a large commercial scale either for us or our prospective licensees. Our initial commercial operations involved the production of lead compounds and plastics from recycled LABs, and the sale of lead bullion and AquaRefined lead. While we believe that our development, testing and limited production to date has validated the concept of our AquaRefining process, the limited nature of our operations to date are not sufficient to confirm the economic returns on our production of recycled metals. Further, we have only recently commenced commercial operations in the area of recycling of lithium-ion batteries. There can be no assurance that either us or our licensees will be able to produce AquaRefined metals from batteries in commercial quantities at a cost of production that will provide us and our proposed licensees with an adequate profit margin.

Our intellectual property rights may not be adequate to protect our business. As of the date of this report, we have 3 issued US patents, 32 international patents, and 3 international allowances related to our AquaRefining process.

We also have further patent applications pending in the United States and numerous corresponding patent applications pending in 16 additional jurisdictions relating to certain elements of the technology underlying our AquaRefining process and related apparatus and chemical formulations. However, no assurances can be given that any patent issued, or any patents issued on our current and any future patent applications, will be sufficiently broad to adequately protect our technology. In addition, we cannot assure you that any patents issued now or in the future will not be challenged, invalidated, or circumvented.

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

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

Our internal computer systems, or those of our collaborators or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our product development programs. Our internal computer systems and those of our current and any future customers, vendors, licensees, collaborators and other contractors or consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any such material system failure, accident or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a disruption of our research and development and our business operations, whether due to a loss of our trade secrets or other proprietary information or other similar disruptions. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, our competitive position could be harmed and the further development and commercialization of our recycling technologies could be delayed.

We could be subject to risks caused by misappropriation, misuse, leakage, falsification or intentional or accidental release or loss of information maintained in the information systems and networks of our company and our customers, vendors, licensees, collaborators and other contractors or consultants, including personal information of our employees and others, and company and third-party confidential data. In addition, outside parties may attempt to penetrate our systems or those of our customers, vendors, licensees, collaborators and other contractors or consultants or fraudulently induce our personnel or the personnel of third parties to disclose sensitive information in order to gain access to our data and/or systems. We may experience threats to our data and systems, including malicious codes and viruses, phishing and other cyberattack. The number and complexity of these threats continue to increase over time. If a material breach of, or accidental or intentional loss of data from, our information technology systems or those of our customers, vendors, licensees, collaborators and other contractors or consultants occurs, the market perception of the effectiveness of our security measures could be harmed and our reputation and credibility could be damaged. We could be required to expend significant amounts of money and other resources to repair or replace information systems or networks. In addition, we could be subject to regulatory actions and/or claims made by individuals and groups in private litigation involving privacy issues related to data collection and use practices and other data privacy laws and regulations, including claims for misuse or inappropriate disclosure of data, as well as unfair or deceptive practices.

Although we develop and maintain systems and controls designed to prevent these events from occurring, and we have a process to identify and mitigate threats, the development and maintenance of these systems, controls and processes is costly and requires ongoing monitoring and updating as technologies change and efforts to overcome security measures become increasingly sophisticated. Moreover, despite our efforts, the possibility of these events occurring cannot be eliminated entirely. As we outsource more of our information systems to vendors, engage in more electronic transactions with third parties, and rely more on cloud-based information systems, the related security risks will increase and we will need to expend additional resources to protect our technology and information systems. In addition, there can be no assurance that our internal information technology systems or those of our customers, vendors, licensees, collaborators and other contractors or consultants will be sufficient to protect us against breakdowns, service disruption, data deterioration or loss in the event of a system malfunction, or prevent data from being stolen or corrupted in the event of a cyberattack, security breach, industrial espionage attacks or insider threat attacks which could result in financial, legal, business or reputational harm.

Risks Relating to Geopolitical, Macroeconomic and Industry Factors

Unfavorable geopolitical and macroeconomic developments could adversely affect our business, financial condition or results of operations. Our business could be adversely affected by conditions in the U.S. and global economies, the United States and global financial markets and adverse geopolitical and macroeconomic developments, including rising inflation rates, the continuing adverse impact of the COVID-19 pandemic, the Ukrainian/Russian and Israeli/Palestinian conflicts and related sanctions, bank failures, and economic uncertainties related to these conditions. While the COVID-19 pandemic has abated, many of the consequences of the COVID-19 pandemic continue to cause disruption and increased costs for businesses. We believe there continue to be, among other things, supply chain disruptions that are causing delays in the delivery of equipment and inventory and staffing shortages.

Additionally, inflation rates, particularly in the United States, have increased to levels not seen in years, and increased inflation may result in increases in our operating costs (including our labor costs), reduced liquidity and limits on our ability to access credit or otherwise raise capital on acceptable terms, if at all. In response to rising inflation, the U.S. Federal Reserve has raised, and may again raise, interest rates, which, coupled with reduced government spending and volatility in financial markets, may have the effect of further increasing economic uncertainty and heightening these risks.

Further, financial markets around the world experienced volatility following the invasion of Ukraine by Russia in February 2022 and the eruption of the Israeli/Palestinian conflict in October 2023, including as a result of economic sanctions and export controls against Russia and countermeasures taken by Russia. The full economic and social impact of these sanctions and countermeasures, in addition to the ongoing military conflicts in Ukraine and Gaza, which could conceivably expand, remains uncertain; however, both the conflicts and related sanctions have resulted and could continue to result in disruptions to trade, commerce, pricing stability, credit availability, and/or supply chain continuity, in both Europe and globally, and has introduced significant uncertainty into global markets. While we do not currently operate in Russia, Ukraine or the Middle East, as the adverse effects of these conflicts continue to develop our business and results of operations may be adversely affected.

Any of the foregoing could harm our business. Any resulting financial impact cannot be reasonably estimated at this time but may materially affect our business and financial condition. The extent to which the foregoing impacts our results will depend on future developments, which are highly uncertain and cannot be predicted.

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

Global economic conditions could negatively affect our prospects for growth and operating results. Our prospects for growth and operating results will be directly affected by the general global economic conditions of the industries in which our suppliers, partners and customer groups operate. We believe that the market price of battery metal is relatively volatile and reacts to general global economic conditions. Our business will be highly dependent on the economic and market conditions in each of the geographic areas in which we operate. These conditions affect our business by reducing the demand for recyclable batteries and decreasing the price of battery metals in times of economic downturn and increasing the price of used batteries in times of increasing demand of recyclable batteries. There can be no assurance that global economic conditions will not negatively impact our liquidity, growth prospects and results of operations.

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

- increased cost of enforcing our intellectual property rights;
- diminished ability to protect our intellectual property rights;
- heightened price sensitivities from customers in emerging markets;
- our ability to establish or contract for local manufacturing, support and service functions;
- localization of our LABs and components, including translation into foreign languages and the associated expenses;
- compliance with multiple, conflicting and changing governmental laws and regulations;
- compliance with the Federal Corrupt Practices Act and other anti-corruption laws;
- foreign currency fluctuations;
- laws favoring local competitors;
- weaker legal protections of contract terms, enforcement on collection of receivables and intellectual property rights and mechanisms for enforcing those rights;
- market disruptions created by public health crises in regions outside the United States;
- difficulties in staffing and managing foreign operations, including challenges presented by relationships with workers' councils and labor unions;
- issues related to differences in cultures and practices; and
- changing regional economic, political and regulatory conditions.

Risks Relating to Government Law and Environmental Regulations

U.S. government regulation and environmental, health and safety concerns may adversely affect our business. Our operations and the operations of our licensees in the United States will be subject to the federal, state and local environmental, health and safety laws applicable to the reclamation of batteries including the Occupational Safety and Health Act ("OSHA") of 1970 and comparable state statutes. Our facilities and the facilities of our licensees will have to obtain environmental permits or approvals to expand, including those associated with air emissions, water discharges, and waste management and storage. We and our licensees may face opposition from local residents or public interest groups to the installation and operation of our respective facilities. In addition to permitting requirements, our operations and the operations of our licensees are subject to environmental health, safety and transportation laws and regulations that govern the management of and exposure to hazardous materials such as the acids involved in battery reclamation. These include hazard communication and other occupational safety requirements for employees, which may mandate industrial hygiene monitoring of employees for potential exposure.

We and our licensees are also subject to inspection from time to time by various federal, state and local environmental, health and safety regulatory agencies and, as a result of these inspections, we and our licensees may be cited for certain items of non-compliance. Failure to comply with the requirements of federal, state and local environmental, health and safety laws could subject our business and the businesses of our licensees to significant penalties (civil or criminal) and other sanctions that could adversely affect our business. In addition, in the event we are unable to operate and expand our AquaRefining process and operations as safe and environmentally responsible, we and our licensees may face opposition from local governments, residents or public interest groups to the installation and operation of our facilities.

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

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

We will be subject to foreign government regulation and environmental, health and safety concerns that may adversely affect our business. As our business expands outside of the United States, our operations will be subject to the environmental, health and safety laws of the countries where we do business, including permitting and compliance requirements that address the similar risks as do the laws in the United States, as well as international legal requirements such as those applicable to the transportation of hazardous materials. Depending on the country or region, these laws could be as stringent as those in the U.S., or they could be less stringent or not as strictly enforced. In some countries in which we are interested in expanding our business, such as Mexico and China, the relevant environmental regulatory and enforcement frameworks are in flux and subject to change. Compliance with these requirements will cause our business to incur costs, and failure to comply with these requirements could adversely affect our business.

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

Risks Related to Owning Our Common Stock

The market price of our shares may be subject to fluctuation and volatility. You could lose all or part of your investment. The market price of our common stock is subject to wide fluctuations in response to various factors, some of which are beyond our control. Since January 1, 2023, the reported high and low sales prices of our common stock have ranged from \$1.69 to \$0.47 through March 22, 2024. The market price of our shares on the NASDAQ Capital Market may fluctuate as a result of a number of factors, some of which are beyond our control, including, but not limited to:

- actual or anticipated variations in our and our competitors' results of operations and financial condition;
- changes in earnings estimates or recommendations by securities analysts, if our shares are covered by analysts;
- development of technological innovations or new competitive products by others;
- regulatory developments and the decisions of regulatory authorities as to the approval or rejection of new or modified products;
- our sale or proposed sale, or the sale by our significant stockholders, of our shares or other securities in the future;
- changes in key personnel;
- success or failure of our research and development projects or those of our competitors;
- the trading volume of our shares; and
- general economic and market conditions and other factors, including factors unrelated to our operating performance.

These factors and any corresponding price fluctuations may materially and adversely affect the market price of our shares and result in substantial losses being incurred by our investors. In the past, following periods of market volatility, public company stockholders have often instituted securities class action litigation. If we were involved in securities litigation, it could impose a substantial cost upon us and divert the resources and attention of our management from our business.

We have received a notice of delisting or failure to satisfy a continued listing rule from the Nasdaq. On November 24, 2023, we received a letter (from the Nasdaq Stock Market, LLC, or Nasdaq, notifying us we had fallen below compliance with respect to the continued listing standard set forth in Rule 5550(a)(2) of the Nasdaq Listing Rules because the closing bid price of our common stock over the previous 30 consecutive trading-day period had fallen below \$1.00 per share.

Pursuant to the Nasdaq's letter and Rule 5810(c)(3)(A) of the Nasdaq Listing Rules, we have 180 days from the date of the letter, or until May 22, 2024, to regain compliance with the minimum bid price requirement in Rule 5550(a)(2) by achieving a closing bid price for our common stock of at least \$1.00 per share over a minimum of 10 consecutive business days. If we do not regain compliance with Rule 5550(a)(2) during the initial 180-day period, we may be eligible for additional time to regain compliance, subject to our compliance with the Nasdaq's continued listing requirement for market value of publicly-held shares and all other initial listing standards for The Nasdaq Capital Market, with the exception of the bid price requirement, and our provision of certain undertakings to the Nasdaq. However, there can be no assurance that we will be afforded additional time to regain compliance with the minimum bid price requirement following the initial 180-day period. If we are unable to regain compliance with Nasdaq Listing Rule 5550(a)(2) in a timely manner, the Nasdaq will commence suspension and delisting procedures.

These factors and any corresponding price fluctuations may materially and adversely affect the market price of our shares and result in substantial losses being incurred by our investors. In the past, following periods of market volatility, public company stockholders have often instituted securities class action litigation. If we were involved in securities litigation, it could impose a substantial cost upon us and divert the resources and attention of our management from our business.

If securities or industry analysts do not continue to publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline. The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. If industry analysts cease coverage of us, the trading price for our common stock would be negatively affected. If one or more of the analysts who cover us downgrade our common stock or publish inaccurate or unfavorable research about our business, our common stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our common stock could decrease, which might cause our common stock price and trading volume to decline. In addition, independent industry analysts may provide reviews of our AquaRefining technology, as well as competitive technologies, and perception of our offerings in the marketplace may be significantly influenced by these reviews. We have no control over what these industry analysts report, and because industry analysts may influence current and potential customers, our brand could be harmed if they do not provide a positive review of our products and platform capabilities or view us as a market leader.

We may be at an increased risk of securities class action litigation. Historically, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because early-stage companies have experienced significant stock price volatility in recent years. If we were to be sued, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business. In 2017, a securities class action lawsuit and shareholder derivative lawsuit were filed against us. In 2021, we were able to settle both actions through our issuance of \$500,000 of our common shares and our adoption of limited corporate governance reforms, however we incurred significant legal costs in defending both actions and our management was required to devote significant time in managing the defense of the actions.

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

Future sales of substantial amounts of our common stock, or the possibility that such sales could occur, could adversely affect the market price of our common stock. We cannot predict the effect, if any, that future issuances or sales of our securities or the availability of our securities for future issuance or sale, will have on the market price of our common stock. Issuances or sales of substantial amounts of our securities, or the perception that such issuances or sales might occur, could negatively impact the market price of our common stock and the terms upon which we may obtain additional equity financing in the future.

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

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

- limit who may call stockholder meetings;
- do not provide for cumulative voting rights;
- establish an advance notice procedure for stockholders' proposals to be brought before an annual meeting, including proposed nominations of persons for election to our board of directors, and
- provide that all vacancies may be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum.

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

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

Item 1B. Unresolved Staff Comments

None.

Item 1C. Cybersecurity

At Aqua Metals, Inc., we are committed to protecting our information systems, data, and sensitive information from unauthorized access, breaches, and cyberattacks. In this section, we provide an overview of our cybersecurity practices and the measures we have implemented to mitigate cybersecurity risks. We have established comprehensive cybersecurity policies and procedures that outline the standards and guidelines for safeguarding our digital assets. These policies cover areas such as access controls, data encryption, network security, incident response, and employee awareness training. We regularly conduct thorough assessments to identify and evaluate potential cybersecurity risks. These assessments help us understand our vulnerabilities and prioritize our efforts to mitigate those risks. We have implemented risk management strategies that include proactive monitoring, and vulnerability scanning. Due to evolving cybersecurity threats, it has and will continue to be difficult to prevent, detect, mitigate, and remediate cybersecurity incidents. While we have not experienced any material cybersecurity threats or incidents as of the date of this Report, our cybersecurity program might not be able to prevent or mitigate future successful attacks, threats or incidents.

To prevent cyber threats, we have implemented a multi-layered approach to security. This includes firewalls, intrusion detection and prevention systems, and regular software patching. We also enforce strong password policies and implement two-factor authentication for sensitive systems. In the event of a cybersecurity incident, we have a well-defined incident response plan in place. This plan includes procedures for containment, investigation, and recovery. We also maintain backups of critical data to ensure business continuity in case of a breach or system failure.

We believe that cybersecurity is a shared responsibility. We provide regular training and awareness programs to educate our employees about best practices, potential threats, and their role in maintaining a secure environment. This includes phishing awareness, social engineering training, and ongoing communication about emerging threats.

Governance

Cybersecurity holds a critical position within our risk management framework, drawing significant attention from both our Board and management. Oversight of cybersecurity risks is vested in our Audit Committee, which regularly receives updates from senior management. These updates, provided as needed, feature insights from our leaders in information security. Topics covered include the identification of existing and emerging cybersecurity threats, progress reports on risk mitigation efforts, disclosure of cybersecurity incidents, and updates on key information security initiatives. Furthermore, our Board members engage in informal discussions with management regarding cybersecurity news and assess any revisions made to our cybersecurity risk management strategies.

Item 2. Properties

Our executive offices are presently located in 4,183 square feet of class A office space in Reno, Nevada. We lease this facility at a lease rate of approximately \$11,000 per month. The lease term began in September, 2021 and expires September 30, 2024.

We have developed and lease an Innovation Center focused on applying Aqua Metals technology to lithium-ion battery recycling. We lease this facility at a lease rate of approximately \$11,000 per month. The original lease term expired on December 31, 2021, but was renewed for a three year period which commenced on January 1, 2022 and expires on December 31, 2024.

Our executive offices were previously located in 21,697 square feet of office and industrial space in a multi-building commercial project known as “Marina Village” located in Alameda, California. This lease was terminated in February 2022.

We owned a 136,750 square foot recycling facility on 11.73 acres of land located in TRIC, a 107,000-acre park located nine miles east of Reno, Nevada on I-80. As noted in Note 4, on April 26, 2023, the Company sold the real property to Comstock Inc. for \$15.25 million. As noted in Note 13, after paying the note payable, the Company received the net proceeds of approximately \$5.7 million.

In February 2023, we purchased a property located in TRIC. The property includes both the land and an existing building. The land totals approximately five acres and the building is approximately 21,000 square feet. The Company is currently redeveloping the existing facility and installing our first commercial-scale Li AquaRefining system, which will process an estimated 3,000 tonnes of materials annually. The Company is also exploring plans to develop the remaining land on the property to expand capacity and operations.

Item 3. Legal Proceedings

For a description of our material pending legal proceedings, please see Note 15, Commitments and Contingencies, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock is traded on the NASDAQ Capital Market under the symbol “AQMS.”

Holders of Record

As of March 22, 2024, there were eleven holders of record of our common stock.

Dividend Policy

We have never declared or paid cash dividends on our common stock. We presently intend to retain earnings, if any, to finance the operation and expansion of our business.

Equity Compensation Plan Information

We have adopted the Aqua Metals, Inc. 2014 Stock Incentive Plan providing for the grant of non-qualified stock options and incentive stock options to purchase shares of our common stock and for the grant of restricted and unrestricted share grants. We have reserved 2,127,306 shares of our common stock under the plan. All of our officers, directors, employees and consultants are eligible to participate under the plan. The purpose of the plan is to provide eligible participants with an opportunity to acquire an ownership interest in our company.

In 2019, our board of directors adopted the Aqua Metals, Inc. 2019 Stock Incentive Plan (the “2019 Plan”). A total of 18,500,000 shares of common stock was authorized for issuance pursuant to the 2019 Plan. The 2019 Plan provides for the following types of stock-based awards: incentive stock options; non-statutory stock options; restricted stock; and performance stock. The 2019 Plan, under which equity incentives may be granted to employees and directors under incentive and non-statutory agreements, requires that the option price may not be less than the fair value of the stock at the date the option is granted. Option awards are exercisable until their expiration, which may not exceed 10 years from the grant date.

The following table sets forth the number and weighted-average exercise price of securities to be issued upon exercise of outstanding options and warrants, and the number of securities remaining available for future issuance, under our equity compensation plan at December 31, 2023.

	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted- Average Exercise Price of Outstanding Options and Warrants	Number of Securities Remaining Available for Future Issuance Under Equity compensation Plans
Equity compensation plans approved by stockholders	8,654,491 (1)	\$ —	1,420,454
Equity compensation plans not approved by stockholders	575,993 (2)	\$ 1.34	

(1) Includes 8,654,491 relating to restricted stock units under our stock-based compensation plans.

(2) Consists of warrants issued in connection with financing activities.

Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 6. Reserved

None.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

General

Aqua Metals is engaged in the business of applying its commercialized clean, water-based recycling technology principles to develop the clean and cost-efficient recycling solutions for both lead and lithium-ion (“Li”) batteries. Our recycling process is a patented hydro- and electrometallurgical technology that is a novel, proprietary and patented process we developed and named AquaRefining. AquaRefining is a low-emissions, closed-loop recycling technology that replaces polluting furnaces and hazardous chemicals with electricity-powered electroplating to recover valuable metals and materials from spent batteries with higher purity, lower emissions, and with minimal waste. The modular “Aqualyzers” cleanly generate ultra-pure metal one atom at a time, closing the sustainability loop for the rapidly growing energy storage economy.

Our process was originally designed for lead recycling. Lead is a globally traded commodity with a worldwide market value in excess of \$20 billion. We are also applying our commercialized clean, water-based recycling technology principles with the goal of developing the cleanest and most cost-efficient recycling solution for lithium-ion batteries. We believe our process has the potential to produce higher quality products at a lower operating cost without the damaging effects of furnaces and greenhouse emissions. Aqua Metals estimates the total addressable market for lithium-ion battery recycling will be approximately \$9 billion by 2025 and grow to exceed lead battery recycling by the end of the decade.

In February 2021, we announced our entry into the lithium-ion battery (LiB) recycling market through a key provisional patent we filed that applies the same innovative AquaRefining approach. In August 2021, we announced we had established our Innovation Center in TRIC focused on applying our proven technology to LiB recycling research and development and prototyping. Our strategic decision to apply our proven clean, closed-loop hydrometallurgical and electrochemical recycling experience to lithium-ion battery recycling is designed to meet the growing demand for critical metals driven by the global transition to electric vehicles; growth in internet data centers; and alternative energy applications including solar, wind, and grid-scale storage.

During the first half of 2022, we announced our ability to recover copper, lithium hydroxide, nickel and cobalt from lithium-ion battery black mass at the Company’s Innovation Center. During 2022, we built our fully-integrated pilot system, located within the company’s Innovation Center, which is designed to allow Aqua Metals to be the first company in North America to recycle battery minerals from black mass and sell them in the U.S. and position the Company as the first LiB recycler in North America to align with the U.S. government’s goal of retaining strategic battery minerals within the domestic supply chain.

During 2022, we conducted environmental comparisons based on Argonne National Lab’s modeling of lithium battery supply chains – called EverBatt. The initial results indicate that AquaRefining is a cleaner approach to LiB recycling, producing far less CO₂ waste streams than the two evaluated primary processes currently on the market which include smelting and chemically driven hydrometallurgical process. In December of 2022, we completed equipment installation and began to operate our first-of-a-kind LiB recycling facility, utilizing electricity to recycle instead of intensive chemical processes, fossil fuels, or high-temperature furnaces. In January of 2023, Aqua Metals recovered its first metals from recycling lithium batteries using the patent-pending Li AquaRefining process and is currently scaling operations at the Company’s pilot facility.

In February 2023, we acquired a five-acre recycling campus at TRIC. When fully developed, the facility is designed, to process up to 10,000 tonnes of lithium-ion battery material each year using our proprietary AquaRefining technology. We expect to complete development of phase one, including all equipment installation, by the end second quarter 2024 and to commence operations at the new campus in the third quarter of 2024. Our initial plans call for upgrading the current building to install a commercial-scale Li AquaRefining system capable of recycling 3,000 tons of lithium battery ‘black mass’ each year. We expect to complete redevelopment of the current space and finalize equipment installation this year, and to commence operations at the new campus in the third quarter of 2024. The purchase of the new property was funded with a non-dilutive loan. We also intend to finance the development of Phase One through a non-dilutive loan. The Company is currently in discussions with a provider of debt financing that has provided financing in the past.

Our focus for the lead market is providing equipment and licensing of our lead acid battery recycling technologies in an enabler model which allows us to work with anyone in the industry globally and address the entire marketplace. Our focus for the lithium market includes operating our first-of-a-kind lithium battery recycling facility, utilizing electricity to recycle instead of intensive chemical processes, fossil fuels, or high-temperature furnaces. We are also exploring partnership and/or joint ventures agreements, particularly as our Li AquaRefining matures through 2024. We believe that Aqua Metals is in a position to become one of the few critical minerals recovery players for which our environmental and economic value proposition should generate both great commercial wins and potentially government grants to accelerate our credibility and progress.

During the year ended December 31, 2023, we issued 3,244,302 shares of common stock pursuant to an At the Market Issuance Sales Agreement ("ATM") for net proceeds of \$3.8 million. We raised a net of \$18.3 million in the third quarter of 2023 from the public offering of our common shares and a net of \$4.6 million from the sale of our common stock to Yulho.

Results of Operations for the Fiscal Year Ended December 31, 2023 Compared to the Fiscal Year Ended December 31, 2022

During the years ended December 31, 2023 and December 31, 2022, revenue resulted from the sale of inventory consisting of lead compounds that were generated during operation of our former TRIC facility. During the years ended December 31, 2023 and December 31, 2022, product sales consisted of lead bullion, lead compounds and plastics that were generated through the AquaRefining process. The following table summarizes results of operations with respect to the items set forth below for the twelve months ended December 31, 2023 and 2022 together with the percentage change from the twelve months ended December 31, 2022 for those items (in thousands).

	Year ended December 31,			% Change
	2023	2022	Favorable (Unfavorable)	
Product sales	\$ 25	\$ 4	\$ 21	525%
Plant operations	6,282	3,959	(2,323)	(59)%
Research and development cost	1,741	1,813	72	4%
Impairment expense	4,851	579	(4,272)	(738)%
Gain on disposal of property, plant and equipment	(23)	(596)	(573)	96%
General and administrative expense	11,638	9,815	(1,823)	(19)%
Total operating expense	\$ 24,489	\$ 15,570	\$ (8,919)	(57)%

Except for nominal revenue generated from the sale of lead finished goods, we did not generate revenue during the years ended December 31, 2023 and December 31, 2022. Plant activity during 2023 and 2022 consisted of testing our lithium-ion battery recycling technology, developing the prototype system activities, and quickly advancing from the planning and validation phases to execution and operation of our pilot facility and the build out of our commercial facility.

Plant operations includes supplies and related costs, salaries and benefits, consulting and outside services costs, depreciation and amortization costs, insurance, travel and overhead costs. Plant operations increase approximately \$2,323,000 or 59% for the twelve months ended December 31, 2023, as compared to the twelve months ended December 31, 2022 as a result of an increase in payroll and payroll related fees of approximately \$1,702,000, as we hired additional staff to operate the pilot facility, process black mass and build out of our commercial facility in addition to an increase of \$482,000 in legal fees and other service costs.

Research and development cost includes expenditures related to the improvement of the AquaRefining technology and the development of our lithium-ion battery recycling process. During the twelve months ended December 31, 2023, research and development costs decreased approximately \$72,000 or 4% from the comparable period in 2022. Research and development is a key part of our business strategy and includes our focus on improving the Company's proprietary technology for LAB recycling and advancing our research related to the application of AquaRefining to recycling lithium-ion batteries. The decrease was driven by moving our focus from R&D to operating our fully integrated pilot system at the Innovation Center and build out of our commercial facility.

For the year ended December 31, 2023, we recognized a non-cash impairment charge of \$4,851,000, subsequent to an analysis of our investment and construction in progress ("CIP") with regard to our investment in LINICO and ACME Metals. We recognized a loss on the investment in LINICO of approximately \$1,400,000 during the year ended December 31, 2023 as the result of the sale of our LINICO common stock to LINICO's parent Comstock Inc., for \$600,000 payable in twelve equal monthly installments commencing in January 2024. In addition, we recognized a loss of \$3,451,000 million related to the ACME CIP as a result of the suspension of the development of recycling operations at the ACME Metals Taiwanese facility. During 2023, management has shifted focus away from the original service under the ACME lead recycling license agreement to a new primary focus on the Lithium recycling business as a Company. As a result, management sees a decrease in the utilization of the ACME plant and its related operations, and assessed that the future expected cash flows connected with ACME are at or near zero. For the year ended December 31, 2022, we recognized a write down to fair market value of our assets held for sale of approximately \$579,000. We recorded a gain of \$700,000 that resulted from the write-off of plant commitment accrued expenses and \$100,000 gain that resulted from the sale of CIP equipment. The gain was offset by a loss on the sale of assets held for sale of approximately \$100,000 and \$100,000 bad debt resulting from the sale of the battery breaker.

We recognized a gain on disposal of property, plant and equipment of approximately \$23,000 during the twelve months ended December 31, 2023 compared to a gain of \$596,000 for the twelve months ended December 31, 2022. For the twelve months ended December 31, 2022, the gain on property, plant and equipment resulted from the write-off of plant commitment accrued expenses. Plant clean-up and repair of fire damaged areas were completed by the end of June 30, 2022.

General and administrative expense increased approximately \$1,823,000, or 19%, for the twelve months ended December 31, 2023 compared to the twelve months ended December 31, 2022. The increase in general and administrative expenses for the the twelve months ended December 31, 2023 includes \$1,237,000 in payroll and payroll-related expenses, as well as an increase of \$780,000 in travel-related expenses, advertising and promotion expenses, and overhead expenses, offset by a \$300,000 decrease in professional fees.

The following table summarizes our other income and interest expense for the years ended December 31, 2023 and December 31, 2022 together with the percentage change in those items (in thousands).

	Year ended December 31,			% Change
	2023	2022	Favorable (Unfavorable)	
Interest expense	\$ (621)	\$ (125)	\$ (496)	397%
Interest and other income	\$ 1,147	\$ 262	\$ 885	338%
Total other income (expense), net	\$ 526	\$ 137	\$ 389	284%

We recognized interest expense of \$621,000 for the year ended December 31, 2023 and \$125,000 for the year ended December 31, 2022. The increase in interest expense from the prior year is due to the interest paid on the two loans secured in September 2022 and February 2023.

For the year ended December 31, 2023 and December 31, 2022, and we recorded approximately \$1,147,000 and \$262,000 in interest and other income, respectively, an increase of \$885,000 or 338%. The \$513,000 increase in interest and \$242,000 in other revenue is attributable to increased interest on our bank deposits and miscellaneous income from a non-recurring engineering arrangement with 6K Energy, respectively.

Liquidity and Capital Resources

As of December 31, 2023, we had total assets of \$33.6 million and working capital of \$13.7 million.

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

	Year ended December 31,	
	2023	2022
Net cash used in operating activities	\$ (3,193)	\$ (10,148)
Net cash used in investing activities	\$ (9,813)	\$ (3,420)
Net cash provided by financing activities	\$ 22,446	\$ 12,513

Net cash used in operating activities

Net cash used in operating activities for the years ended December 31, 2023 and December 31, 2022 was approximately \$3.2 million and \$10.1 million, respectively. Net cash used in operating activities during each of these periods consisted primarily of our net loss adjusted for non-cash items such as depreciation, amortization, and stock-based compensation charges as well as net changes in working capital. During the year ended December 31, 2023, we recognized \$12.3 million proceeds from sales and leasing of building to LINICO, \$1.4 million expense for impairment on LINICO investment and approximately \$3.5 million expense for impairment on ACME CIP. During the year ended December 31, 2022, we recognized a \$0.6 million gain on disposal of property and equipment and approximately \$0.6 million expense for impairment on assets held for sale.

Net cash used in investing activities

Net cash used in investing activities for the year ended December 31, 2023 was \$9.8 million compared to \$3.4 million for the year ended December 31, 2022. During these periods, net cash in investing operations primarily includes fixed asset acquisitions, deposits for future fixed asset purchases and proceeds received from sale of equipment, respectively.

Net cash provided by financing activities

Net cash provided by financing activities for the year ended December 31, 2023 consisted of \$3.8 million in net proceeds from the sale of Aqua Metals shares pursuant to the at-the-market offering, or ATM, \$2.9 million in net proceeds from the loan agreement secured with the Summit Investment Services, LLC, \$18.3 million in net proceeds from our July 2023 public offering and \$4.6 million in net proceeds from the Yulho transaction, offset by the \$6 million used to pay off the note payable as noted in Note 13 and by \$1.1 million related to tax withholdings to cover RSU vesting. Net cash provided by financing activities for the year ended December 31, 2022 consisted of \$6.5 million net proceeds from ATM shares sales and \$5.9 million net proceeds from the loan we secured in September 2022.

As of December 31, 2023, we had total cash of \$16.5 million and working capital of \$13.7 million. As of the date of this report, we believe that we will require additional capital in order to fund our current level of ongoing costs over the next twelve months and move forward with our current business strategy. There can be no assurance that we will be able to acquire the necessary funding on commercially reasonable terms or at all. We intend to seek funds through the sale of equity or debt financing. Funding that includes the sale of our equity may be dilutive. If such financing is not available on satisfactory terms, we may be unable to further pursue our business plan and we may be unable to continue operations.

Due to our lack of revenue from commercial operations, significant losses and need for additional capital, there is substantial doubt about our ability to continue as a going concern within one year after the date that the financial statements are issued.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP. The preparation of our consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of expenses during the period. Significant items subject to such estimates and assumptions include the carrying amount and valuation of long-lived assets, the valuation of conversion features of convertible debt, valuation allowances for deferred tax assets, the determination of estimated asset retirement obligations, the determination of stock option expense, and the determination of the fair value of stock warrants issued. Our actual results could differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 2 to the consolidated financial statements included in Item 8 of this Annual Report on Form 10-K, we believe that the following accounting policies are the most critical to assist stockholders and investors reading the consolidated financial statements in fully understanding and evaluating our financial condition and results of operations.

Property, plant and equipment, net

Property, plant and equipment are stated at cost net of accumulated depreciation. Depreciation on property and equipment is calculated on the straight-line basis over the estimated useful lives of the assets. Leasehold improvements are depreciated over the shorter of the life of the asset or the remaining term of the lease. Upon the retirement or sale of our property and equipment, the cost and associated accumulated depreciation are removed from the consolidated balance sheet, and the resulting gain or loss is reflected on the consolidated statement of operations. Maintenance and repair expenditures are expensed as incurred while major improvements that increase the functionality, output or expected life of an asset are capitalized and depreciated over the estimated useful life.

We periodically evaluate our property, plant and equipment assets for indications that the carrying amount of an asset may not be recoverable. During the year 2023, management has shifted focus away from the original service under the license agreement (Lead business) to a new focus (Lithium business) as a Company. As such, management sees a decline in the utilization of the ACME plant and its related operations. At December 31, 2023, we recognized write down of approximately \$3,451,000 million to equipment under construction that was not yet capitalized related to the ACME CIP as a result of the suspension of the development of recycling operations at the ACME Metals Taiwanese facility. As of December 31, 2022, management compared the carrying value of the assets held for sale against current fair market values. We determined the carrying value needed to be reduced to align with current fair market values. At December 31, 2022, we recognized write down on the assets held for sale to fair market value and \$579,000.

Intangible and other long-lived assets

The intangible assets consist of a patent application contributed to us by five founding stockholders, patent applications for technology developed by us and trademark applications. The useful life of the intangible assets has been determined to be ten years and the assets are being amortized. We periodically evaluate our intangible and other long-lived assets for indications that the carrying amount of an asset may not be recoverable. In reviewing for impairment, we compare the carrying value of such assets to the estimated undiscounted future cash flows expected from the use of the assets and their eventual disposition. When the estimated undiscounted future cash flows are less than their carrying amount, an impairment loss is recognized equal to the difference between the assets' fair value and their carrying value. In addition to the recoverability assessment, we routinely review the remaining estimated lives of our long-lived assets. Any reduction in the useful life assumption will result in increased depreciation and amortization expense in the period when such determination is made, as well as in subsequent periods. We evaluate the need to record impairment during each reporting period. No impairment has been recorded. We determined that the estimated life of the intellectual property properly reflected the current remaining economic life of the asset.

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[Income taxes](#)

We account for income taxes in accordance with the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred assets and liabilities are recognized based upon anticipated future tax consequences attributable to differences between financial statement carrying amounts of assets and liabilities and their respective tax bases. The provision for income taxes is comprised of the current tax liability and the changes in deferred tax assets and liabilities. We established a valuation allowance to the extent that it is more-likely-than-not that deferred tax assets will not be recoverable against future taxable income.

We recognize the effect of uncertain income tax positions only if those positions are more-likely-than-not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

[Warrants](#)

The Company classifies common stock purchase warrants as equity if the contracts (i) require physical settlement or net-share settlement or (ii) give the Company a choice of net-cash settlement or settlement in its own shares (physical settlement or net-share settlement). The Company classifies any contracts that (i) require net-cash settlement (including a requirement to net cash settle the contract if an event occurs and if that event is outside the control of the Company), (ii) give the counterparty a choice of net-cash settlement or settlement in shares (physical settlement or net-share settlement), or (iii) contain reset provisions as either an asset or a liability. The Company assesses classification of its freestanding derivatives at each reporting date to determine whether a change in classification between equity and liabilities is required.

The value of the common stock purchase warrants are estimated using the Black-Scholes pricing model.

[Stock-based compensation](#)

We recognize compensation expense for stock-based compensation in accordance with ASC 718 “Compensation – Stock Compensation.” For employee stock-based awards, we calculate the fair value of the award using the closing price of the common stock on date of grant date. For stock-options we calculate the fair value of the award on the date of grant using the Black-Scholes-Merton method; the expense is recognized over the service period for awards to vest.

For stock price hurdle restricted share units the fair value of the award is calculated on the date of grant using a Monte Carlo simulation model utilizing several key assumptions, including share price volatility, the risk-free rate of return, the expected dividend yield and other award design features.

The Company recognizes forfeitures as they occur.

[Recent accounting pronouncements](#)

See discussion of recent accounting pronouncements in Note 2 of the Consolidated Financial Statements located in Item 8 in this Annual Report.

[Material cash requirements](#)

As of December 31, 2023, we and our subsidiaries had outstanding \$2,958,000 amount of indebtedness, net of issuance costs, \$285,000 interest-only payments are due in the succeeding 12 months. As of December 31, 2023, our total minimum lease payments was \$283,000, of which all is due in the succeeding 12 months. For details regarding our indebtedness and lease obligations, refer to Note 12, Leases, and Note 13, Note payable, to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Contractual Obligations and Commitments

[Operating lease obligations](#)

We currently have two operating leases for real estate. We lease our Reno and McCarran, Nevada spaces under non-cancelable operating leases. The Reno, Nevada lease expires in 2024. The initial lease term for our mixed office and warehouse space in McCarran, Nevada expired on December 31, 2021. We elected to exercise our first extension option provided for in the McCarran, Nevada lease agreement, which extended the current term of the lease to December 31, 2024.

[Finance lease obligation](#)

We currently maintain one finance lease for equipment. In November 2021, we entered into a finance lease for a modular laboratory which expires in October of 2024.

[Note payable](#)

Aqua Metals Reno, Inc. entered into a \$3,000,000 loan agreement with Summit Investment Services, LLC, a Nevada limited liability company (the “Lender”) on February 1, 2023. See Note 13 in the accompanying notes to the consolidated financial statements for additional information.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

Item 8. Financial Statements and Supplementary Data

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Aqua Metals, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of Aqua Metals, Inc. (the “Company”) as of December 31, 2023, the related consolidated statements of operations, stockholders’ equity, and cash flows for the year ended December 31, 2023, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023, and the results of its operations and its cash flows for the year ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has incurred substantial operating losses and negative cash flows from operations since inception that raise substantial doubt about its ability to continue as a going concern. Management’s plans in regard to this matter are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

Critical Audit Matter – Equity-Classified Warrants

As described in Note 14, the Company issued (1) a warrant to purchase 363,860 shares of the Company's common stock to the underwriter of the Company's July 2023 public offering of common stock and (2) a warrant to purchase 205,761 shares of the Company's common stock to an advisor in connection with the Company’s August 2023 securities purchase agreement with Yulho Co, Ltd. The Company evaluated whether the warrants were in the scope of ASC Topic 480 *Distinguishing Liabilities from Equity*, which discusses the accounting for instruments with characteristics of both liabilities and equity. The application of the requirements in ASC Topic 480, and the resulting classification conclusion, is dependent on whether certain criteria are met. Based on its analysis, the Company concluded that the warrants did not meet any of the criteria to be subject to liability classification and are therefore classified as equity.

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We identified the classification of the warrants as a critical audit matter. The principal considerations for that determination included the complexity and effort required in identifying all relevant features of and obligations under the instruments for evaluation against the criteria for classification. This required a high degree of auditor effort, including specialized skills and knowledge, and complex auditor judgment in evaluating the features of and obligations under the warrants and the determination of whether such features meet the criteria for liability-classification.

The primary procedures we performed to address this critical audit matter included:

- We obtained an understanding of management’s process for identifying and evaluating the critical terms of the warrant agreements in determining the classification.
- With the assistance of professionals in our firm that have specialized skills and knowledge in accounting for debt and equity instruments:
 - We evaluated management’s analysis and conclusions regarding the relevant provisions and features of the warrants in light of relevant guidance and the criteria for classification.
 - We read the securities purchase agreement and underlying warrant agreements to identify the relevant features and settlement provisions for our evaluation.
 - We independently evaluated the relevant features and settlement provisions of the warrants under relevant guidance considering the criteria for classification.

/s/ FORVIS, LLP

We have served as the Company’s auditor since 2023.

New York, New York

March 28, 2024

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and
Stockholders of Aqua Metals, Inc. and Subsidiaries:
Reno, NV

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of Aqua Metals, Inc. and Subsidiaries (collectively the "Company") as of December 31, 2022, and the related consolidated statements of operations, stockholders' equity and cash flows, for the year ended December 31, 2022, and the related notes (collectively referred to as the "consolidated financial statements").

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022, and the results of its operations and its cash flows for the year ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audit also included performing such other procedures as we considered necessary in the circumstances.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ ArmaninoLLP

San Ramon, California

March 9, 2023

We began serving as the Company's auditor in 2014. In 2023, we became the predecessor auditor.



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

	December 31, 2023	December 31, 2022
ASSETS		
Current assets		
Cash and cash equivalents	\$ 16,522	\$ 7,082
Note receivable - LINICO	600	—
Accounts receivable	67	12
Lease receivable	—	15,527
Inventory	929	278
Assets held for sale	—	47
Prepaid expenses and other current assets	181	263
Total current assets	<u>18,299</u>	<u>23,209</u>
Non-current assets		
Property, plant and equipment, net	10,347	7,343
Intellectual property, net	281	461
Investment in LINICO	—	2,000
Other assets	4,673	489
Total non-current assets	<u>15,301</u>	<u>10,293</u>
Total assets	<u>\$ 33,600</u>	<u>\$ 33,502</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	\$ 1,836	\$ 1,075
Accrued expenses	2,467	1,780
Building purchase deposit	—	3,250
Lease liability, current portion	275	307
Note payable, current portion	35	5,899
Total current liabilities	<u>4,613</u>	<u>12,311</u>
Lease liability, non-current portion	—	275
Note payable, non-current portion	2,923	—
Total liabilities	<u>7,536</u>	<u>12,586</u>
Commitments and contingencies (see Note 15)		
Stockholders' equity		
Common stock; \$0.001 par value; 200,000,000 shares authorized; 108,308,661 and 107,880,095, shares issued and outstanding as of December 31, 2023, respectively and 79,481,751 shares issued and outstanding as of December 31, 2022	108	79
Additional paid-in capital	249,687	220,114
Accumulated deficit	(223,215)	(199,277)
Treasury stock, at cost; common shares: 428,566 and nil as of December 31, 2023 and December 31, 2022, respectively	(516)	—
Total stockholders' equity	<u>26,064</u>	<u>20,916</u>
Total liabilities and stockholders' equity	<u>\$ 33,600</u>	<u>\$ 33,502</u>

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

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

	Year ended December 31,	
	2023	2022
Product sales	\$ 25	\$ 4
Operating cost and expense		
Plant operations	6,282	3,959
Research and development cost	1,741	1,813
Impairment expense	4,851	579
Gain on disposal of property, plant and equipment	(23)	(596)
General and administrative expense	11,638	9,815
Total operating expense	24,489	15,570
Loss from operations	(24,464)	(15,566)
Other income and expense		
Interest expense	(621)	(125)
Interest and other income	1,147	262
Total other income (expense), net	526	137
Loss before income tax expense	(23,938)	(15,429)
Income tax expense	—	(2)
Net loss	\$ (23,938)	\$ (15,431)
Weighted average shares outstanding, basic and diluted	93,931,948	75,811,034
Basic and diluted net loss per share	\$ (0.25)	\$ (0.20)

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

AQUA METALS, INC.
Consolidated Statements of Stockholders' Equity
(in thousands, except share amounts)

	Common Stock				Treasury Stock		Total Stockholders' Equity (Deficit)
	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Shares	Amount	
Balances, December 31, 2021	70,416,552	\$ 70	\$ 211,309	\$ (183,846)	—	\$ —	27,533
Stock-based compensation	—	—	2,253	—	—	—	2,253
Common stock issued upon RSU vesting	2,275,731	2	—	—	—	—	2
Common stock issued for consulting services	19,176	—	19	—	—	—	19
Common stock issued for ATM share sales, net of \$250 transaction costs	6,742,069	7	6,512	—	—	—	6,519
Common stock issued for directors fees	28,223	—	21	—	—	—	21
Net loss	—	—	—	(15,431)	—	—	(15,431)
Balances, December 31, 2022	<u>79,481,751</u>	<u>\$ 79</u>	<u>\$ 220,114</u>	<u>\$ (199,277)</u>	<u>—</u>	<u>\$ —</u>	<u>\$ 20,916</u>
Stock-based compensation	—	—	2,532	—	—	—	2,532
RSUs issued for consulting services	15,781	—	12	—	—	—	12
Common stock issued to employees and directors, includes RSUs vesting and withholdings to satisfy tax withholdings on RSUs vesting	1,633,506	2	(577)	—	428,566	(516)	(1,091)
Common stock issued for public offering, net of \$1,713 transaction costs	18,193,000	18	18,300	—	—	—	18,318
Common stock issued for Yulho agreement, net of \$372 transaction costs	4,545,455	5	4,624	—	—	—	4,629
Warrant expense related to Yulho agreement	—	—	181	—	—	—	181
Common stock issued for employee stock purchase plan sales	192,707	—	122	—	—	—	122
Common stock issued for class action settlement	469,366	1	500	—	—	—	501
Common stock issued for ATM share sales, net of \$119 transaction costs	3,244,302	3	3,783	—	—	—	3,786
Common stock issued for director fees and other director incentives	104,227	—	96	—	—	—	96
Net loss	—	—	—	(23,938)	—	—	(23,938)
Balances, December 31, 2023	<u>107,880,095</u>	<u>\$ 108</u>	<u>\$ 249,687</u>	<u>\$ (223,215)</u>	<u>428,566</u>	<u>\$ (516)</u>	<u>\$ 26,064</u>

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

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

	Year ended December 31,	
	2023	2022
Cash flows from operating activities:		
Net loss	\$ (23,938)	\$ (15,431)
Reconciliation of net loss to net cash used in operating activities		
Depreciation and ROU asset amortization	1,091	882
Amortization of intellectual property	180	179
Warrant expense	181	—
Fair value of common stock issued for consulting services	12	19
Stock-based compensation	2,534	2,255
Fair value of common stock issued for director fees	96	21
Amortization of deferred financing costs	128	13
Gain on disposal of property, plant and equipment	(23)	(596)
Impairment of equipment	3,451	579
Impairment of LINICO investment	1,400	—
Changes in operating assets and liabilities		
Accounts receivable	(55)	120
Proceeds from sale and leasing of building	12,278	920
Inventory	(651)	(155)
Prepaid expenses and other current assets	82	93
Accounts payable	139	22
Accrued expenses	209	1,428
Other assets and liabilities	(307)	(497)
Net cash used in operating activities	(3,193)	(10,148)
Cash flows from investing activities:		
Purchases of property, plant and equipment	(5,598)	(4,771)
Proceeds from sale of equipment	70	1,760
Equipment deposits and other assets	(4,285)	91
Investment in LINICO	—	(500)
Net cash used in investing activities	(9,813)	(3,420)
Cash flows from financing activities:		
Proceeds from issuance of common stock, net of transaction costs	22,947	—
Proceeds from employee stock purchase plan	14	108
Payments on note payable	(6,000)	—
Proceeds from note payable, net	2,931	5,886
Cash paid for tax withholdings on RSUs vesting	(1,092)	—
Debt issuance costs	(140)	—
Proceeds from ATM, net	3,786	6,519
Net cash provided by financing activities	22,446	12,513
Net increase (decrease) in cash and cash equivalents	9,440	(1,055)
Cash and cash equivalents at beginning of period	7,082	8,137
Cash and cash equivalents at end of period	\$ 16,522	\$ 7,082

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

(Continued)

	<u>Year ended December 31,</u>	
	<u>2023</u>	<u>2022</u>
Supplemental disclosure of cash flow information:		
Cash paid for interest	\$ 480	\$ 84
Cash paid for income taxes	\$ —	\$ 2
Supplemental disclosure of non-cash transactions		
Acquisitions of property, plant and equipment included in accounts payable	\$ 1,072	\$ 451
Acquisitions of property, plant and equipment included in accrued expenses	\$ 1,857	\$ 770
Increase in note receivable resulting from sale of investment	\$ 600	\$ —
Increase in equity included in accrued expenses	\$ 608	\$ —

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

AQUA METALS, INC.
Notes to Consolidated Financial Statements

1. Organization and Operations

Aqua Metals is engaged in the business of applying its commercialized clean, water-based recycling technology principles to develop the clean and cost-efficient recycling solutions for both lead and lithium-ion (“Li”) batteries. Our recycling process is a patented hydro- and electrometallurgical technology that is a novel, proprietary and patented process we developed and named AquaRefining. AquaRefining is a low-emissions, closed-loop recycling technology that replaces polluting furnaces and hazardous chemicals with electricity-powered electroplating to recover valuable metals and materials from spent batteries with higher purity, lower emissions, and with minimal waste. The modular “Aqualyzers” cleanly generate ultra-pure metal one atom at a time, closing the sustainability loop for the rapidly growing energy storage economy.

We are in the process of demonstrating that Li AquaRefining, which is fundamentally non-polluting, can create the highest quality and highest yields of recovered minerals from lithium-ion batteries with lower waste streams and lower costs than existing alternatives.

Our focus for the lead market is providing equipment and licensing of our lead acid battery recycling technologies in an enabler model which allows us to work with anyone in the industry globally and address the entire marketplace. Our focus for the lithium market includes operating our first-of-a-kind lithium battery recycling facility, utilizing electricity to recycle instead of intensive chemical processes, fossil fuels, or high-temperature furnaces.

Liquidity and Going Concern Assessment

For the years ended December 31, 2023 and 2022, the Company reported a net loss of \$23.9 million and \$15.4 million, respectively, and negative cash from operations of \$3.2 million (inclusive of \$12.3 million of non-recurring proceeds from the sale of real estate) and \$10.1 million, respectively. As of December 31, 2023, the Company had cash and cash equivalents of approximately \$16.5 million, a working capital surplus of approximately \$13.7 million and an accumulated deficit of \$223.2 million. The Company has not generated revenues from commercial operations over the two years ended December 31, 2023, except for nominal sales of lead finished goods, and expects to continue incurring losses for the foreseeable future.

Management believes that the Company does not have sufficient capital resources to sustain operations through at least the next twelve months from the date of this filing. Additionally, in view of the Company’s expectation to incur significant losses for the foreseeable future it will be required to raise additional capital resources in order to fund its operations, although the availability of, and the Company’s access to such resources, is not assured. Accordingly, management believes that there is substantial doubt regarding the Company’s ability to continue operating as a going concern through the next twelve months from the date of this filing.

The accompanying consolidated financial statements have been prepared under the assumption the Company will continue to operate as a going concern, which contemplates the realization of assets and the settlement of liabilities in the normal course of business. The consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts of liabilities that may result from uncertainty related to the Company’s ability to continue as a going concern.

Reclassification of Prior Period Financial Statements

For the year ended December 31, 2023, impairment expense and gain on disposal of property and equipment were presented in the Consolidated Statement of Operations within loss from operations.

We have reclassified the prior period Consolidated Statement of Operations included in this filing to conform to the current period presentation, as shown in the following table:

	Twelve Months Ended December 31, 2022		
	As Reported	Reclassification	As Reclassified
Operating cost and expense			
Impairment expense	—	579	579
Gain on disposal of property, plant and equipment	—	(596)	(596)
Total operating expense	\$ 15,587	\$ (17)	\$ 15,570
Income (loss) from operations	\$ (15,583)	\$ 17	\$ (15,566)
Other income and expense			
Impairment expense	(579)	579	—
Gain on disposal of property, plant and equipment	596	(596)	—
Total other income (expense), net	\$ 154	\$ (17)	\$ 137

In connection with the foregoing, we have also identified the following reclassifications which will be made to the 2023 periods to be presented in the interim financial statements in our 2024 10-Q filings:

	Three Months Ended September 30, 2023			Nine Months Ended September 30, 2022		
	As Reported	Reclassification	As Reclassified	As Reported	Reclassification	As Reclassified
Operating cost and expense						
Gain on disposal of property, plant and equipment	—	-	-	—	(23)	(23)
Total operating expense	\$ 4,974	\$ -	\$ 4,974	\$ 14,345	\$ (23)	\$ 14,322
Income (loss) from operations	\$ (4,949)	\$ -	\$ (4,949)	\$ (14,320)	\$ 23	\$ (14,297)
Other income and expense						
Gain on disposal of property, plant and equipment	-	-	—	23	(23)	—
Total other income (expense), net	\$ 402	\$ -	\$ 402	\$ 408	\$ (23)	\$ 385
Three Months Ended June 30, 2023						
	As Reported	Reclassification	As Reclassified	As Reported	Reclassification	As Reclassified
Operating cost and expense						
Gain on disposal of property, plant and equipment	—	(3)	(3)	—	(23)	(23)
Total operating expense	\$ 4,855	\$ (3)	\$ 4,852	\$ 9,371	\$ (23)	\$ 9,348
Income (loss) from operations	\$ (4,855)	\$ 3	\$ (4,852)	\$ (9,371)	\$ 23	\$ (9,348)
Other income and expense						
Gain on disposal of property, plant and equipment	3	(3)	—	23	(23)	—
Total other income (expense), net	\$ 96	\$ (3)	\$ 93	\$ 6	\$ (23)	\$ (17)
Three Months Ended March 31, 2023						
	As Reported	Reclassification	As Reclassified	As Reported	Reclassification	As Reclassified
Operating cost and expense						
Gain on disposal of property, plant and equipment	—	(20)	(20)	—	(20)	(20)
Total operating expense	\$ 4,516	\$ (20)	\$ 4,496	\$ 4,516	\$ (20)	\$ 4,496
Income (loss) from operations	\$ (4,516)	\$ 20	\$ (4,496)	\$ (4,516)	\$ 20	\$ (4,496)
Other income and expense						
Gain on disposal of property, plant and equipment	20	(20)	—	20	(20)	—
Total other income (expense), net	\$ (90)	\$ (20)	\$ (110)	\$ (90)	\$ (20)	\$ (110)

2. Summary of Significant Accounting Policies

Basis of presentation and consolidation

The accompanying consolidated financial statements include those of Aqua Metals, Inc. and its subsidiaries (collectively, the “Company” or “Aqua Metals”), after elimination of all intercompany accounts and transactions. The Company has prepared the accompanying consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and pursuant to the rules and regulations of the United States Securities and Exchange Commission (the “SEC”).

Use of estimates

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

Cash and cash equivalents

The Company considers all highly liquid instruments with original or remaining maturities of ninety days or less at the date of purchase to be cash equivalents. The Company maintains its cash balances in large financial institutions. Periodically, such balances may be in excess of federally insured limits.

Accounts receivable

The Company has traditionally sold its products to large well-established companies and extends credit without requiring collateral, based on an ongoing evaluation of the customer’s business prospects and financial condition. In the event that payment of a customer’s account receivable is doubtful, the Company would reserve the receivable under an allowance for doubtful accounts. As of December 31, 2023, the Company had no trade accounts receivable balance and has not created a reserve for doubtful accounts. The total accounts receivable balance as of December 31, 2023 consisted of proceeds from the non-recurring engineering agreement with 6K Energy.

Note receivable

As of December 31, 2023, the Company has a note receivable from the sale of stock in LINICO totaling \$600,000. The proceeds will be received over a 12 month installment starting in January 2024. As of December 31, 2023, we evaluated the need for an allowance for credit loss using the guidelines set forth in ASC 326 CECL, and have determined this note is fully collectible and, therefore, we have not recorded an allowance against this balance.

Inventory

Inventory is stated at the lower of cost or net realizable value. Cost is recorded on a first-in, first-out basis using the weighted average method. Net realizable value is determined as the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The Company records a write-down, if necessary, to reduce the carrying value of inventory to its net realizable value. The effect of these write-downs is to establish a new cost basis in the related inventory, which is not subsequently written up.

Property, plant and equipment, net

Property, plant and equipment are stated at cost net of accumulated depreciation. Depreciation on property, plant and equipment is calculated on the straight-line basis over the estimated useful lives of the assets. Leasehold improvements are depreciated over the shorter of the life of the asset or the remaining term of the lease.

Property, plant and equipment are stated at cost net of accumulated depreciation. Depreciation on property, plant and equipment is calculated on the straight-line basis over the estimated useful lives of the assets. Leasehold improvements are depreciated over the shorter of the life of the asset or the remaining term of the lease. We periodically evaluate our property, plant and equipment assets for indications that the carrying amount of an asset may not be recoverable. During 2023, management has shifted focus away from the original service under the ACME lead recycling license agreement to a new primary focus on the Lithium recycling business as a Company. As a result, management sees a decrease in the utilization of the ACME plant and its related operations, and assessed that the future expected cash flows connected with ACME are at or near zero. Therefore, at December 31, 2023, we recognized write down of approximately \$3,451,000 million to equipment under construction that was not yet capitalized related to the ACME CIP as a result of the suspension of the development of recycling operations at the ACME Metals Taiwanese facility. As of December 31, 2022, management compared the carrying value of the assets held for sale against current fair market values. We determined the carrying value needed to be reduced to align with current fair market values. At December 31, 2022, we recognized a write down of \$579,000 on the assets held for sale to their fair market value.

Intellectual property, net

Intellectual property consists of patent applications contributed to the Company by five founding stockholders and patent applications for technology developed by the Company. The useful life of this intellectual property has been determined to be ten years and the assets are being amortized straight-line over this period. The Company periodically evaluates its intangible and other long-lived assets for indications that the carrying amount of an asset may not be recoverable. In reviewing for impairment, the Company compares the carrying value of such assets to the estimated undiscounted future cash flows expected from the use of the assets and their eventual disposition. When the estimated undiscounted future cash flows are less than their carrying amount, an impairment loss is recognized equal to the difference between the assets' fair value and their carrying value. In addition to the recoverability assessment, the Company routinely reviews the remaining estimated lives of its long-lived assets. Any reduction in the useful life assumption will result in increased depreciation and amortization expense in the period when such determination is made, as well as in subsequent periods. The Company evaluates the need to record impairment during each reporting period. As of December 31, 2023 and 2022, the Company determined that the estimated life of the intellectual property properly reflected the current remaining economic life of the asset.

Investment in LINICO

Investments, which may be made from time to time for strategic reasons (and not to engage in the business of investments) are included in non-current assets in the consolidated balance sheets. Investments are recorded at cost and the Company analyzes the value of investments on a quarterly basis. The nature and timing of the Company's investments will depend on available capital at any particular time and the investment opportunities identified and available to the Company. The Company accounted for the LINICO investment under ASC 321, Investments-Equity Securities, using the measurement alternative of recording at cost as the investment in LINICO doesn't have a readily determinable fair value. As of December 31, 2023, the Company sold its investment in LINICO and recorded an impairment of \$1,400,000 and a receivable of \$600,000.

Leases

The Company determines if an arrangement is a lease at inception. Operating lease right-of-use assets ("ROU assets") and short-term and long-term lease liabilities are included in the consolidated balance sheets. ROU assets represent the right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating and finance lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of the Company's leases do not provide an implicit rate, the Company uses an incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The Company's lease terms may include options to extend or terminate the lease. Lease expense for lease payments is recognized on a straight-line basis over the lease term. For lease agreements with terms less than 12 months, the Company has elected the short-term lease measurement and recognition exemption, and the Company recognizes such lease payments on a straight-line basis over the lease term.

Revenue recognition

The Company records revenue in accordance with Accounting Standards Codification ("ASC") 606, Revenue from Contracts with Customers. ASC 606 provides a single comprehensive model for the recognition of revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. It requires an entity to recognize revenue when the entity transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASC 606 creates a five-step model that requires entities to exercise judgment when considering the terms of contract(s), which includes (1) identifying the contract(s) with the customer, (2) identifying the separate performance obligations in the contract, (3) determining the transaction price, (4) allocating the transaction price to the separate performance obligations, and (5) recognizing revenue as each performance obligation is satisfied. ASC 606 requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including qualitative and quantitative information about contracts with customers, significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract.

Revenue is generally recognized with the delivery of the Company's products to customers. Sales, value add, and other taxes, if any, that are collected concurrent with revenue-producing activities are excluded from revenue as they are subsequently remitted to governmental authorities. Incidental items that are immaterial in the context of the contract are recognized as expense. Freight and shipping costs related to the transfer of the Company's products to customers are included in revenue and cost of product sales. Payment on invoices is generally due within 30 days of the invoice.

Arrangements with Multiple Performance Obligations

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

Significant Judgments

The Company estimates variable consideration at the most likely amount to which it expects to be entitled and includes estimated amounts in revenue to the extent it is probable that a significant reversal of revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Adjustments to revenue is recognized in the period when the uncertainty is resolved. To date, any adjustments to estimates have not been material.

Practical Expedients and Exemptions

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

Research and development

The Company conducts research and development activities, primarily focusing on refining recycling processes to increase yield and purity of recovered materials. This entails experimenting with different techniques, equipment, and operational parameters to enhance efficiency. All research and development expenditures are expensed as incurred.

Income taxes

The Company accounts for income taxes in accordance with the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred assets and liabilities are recognized based upon anticipated future tax consequences attributable to differences between financial statement carrying amounts of assets and liabilities and their respective tax bases. The provision for income taxes is comprised of the current tax liability and the changes in deferred tax assets and liabilities. The Company establishes a valuation allowance to the extent that it is more-likely-than-not that deferred tax assets will not be recoverable against future taxable income.

The Company recognizes the effect of uncertain income tax positions only if those positions are more-likely-than-not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

Fair value measurements

The carrying amounts of cash and cash equivalents, accounts receivable, inventory, prepaid expenses and other current assets, accounts payable, and accrued expenses approximate fair value due to the short-term nature of these instruments. The carrying value of short and long-term debt, and lease liabilities also approximates fair value since these instruments bear market rates of interest or are calculated using market rates of interest. None of these instruments are held for trading purposes.

Fair value is defined as an exit price, representing the amount that would be received upon the sale of an asset or payment to transfer a liability in an orderly transaction between market participants. Fair value is a market-based measurement that is determined based on assumptions that market participants would use in pricing an asset or liability. A three-tier fair value hierarchy is used to prioritize the inputs in measuring fair value as follows:

Level 1. Quoted prices in active markets for identical assets or liabilities.

Level 2. Quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable, either directly or indirectly.

Level 3. Significant unobservable inputs that cannot be corroborated by market data.

The asset or liability's fair value measurement within the fair value hierarchy is based upon the lowest level of any input that is significant to the fair value measurement.

There are no assets or liabilities that are measured at fair value on a recurring basis at December 31, 2023 or December 31, 2022.

Stock-based compensation

The Company recognizes compensation expense for stock-based compensation in accordance with ASC 718 "Compensation – Stock Compensation." The fair value of restricted stock units ("RSUs") is measured on the grant date based on the closing fair market value of our common stock. The resulting cost is recognized over the period during which an employee is required to provide service in exchange for the awards, usually the vesting period, which is generally three years for RSUs. Stock-based compensation expense is recognized on a straight-line basis, net of actual forfeitures in the period.

The fair value of RSU grants with performance conditions is determined using the closing price of our common stock on date of grant. The calculated compensation cost is adjusted based on an estimate of awards ultimately expected to vest and our assessment of the probable outcome of the performance condition. The fair value of RSU grants with market conditions is calculated on the date of grant using a Monte Carlo simulation model utilizing several key assumptions, including expected share price volatility, the risk-free rate of return, the expected dividend yield and other award design features.

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[Net loss per share](#)

Basic net loss per share is computed by dividing net loss by the weighted average number of vested shares outstanding during the period. Diluted net loss per share is computed by giving effect to all potential dilutive common securities, options and warrants. Potential dilutive common shares include the dilutive effect of the common stock underlying in-the-money stock options and is calculated based on the average share price for each period using the treasury stock method. Under the treasury stock method, the exercise price of an option and the average amount of compensation cost, if any, for future services that the Company has not yet recognized when the option is exercised, are assumed to be used to repurchase shares in the current period.

For all periods presented in this report, unvested restricted stock, stock options and warrants were not included in the computation of diluted net loss per share because such inclusion would have had an antidilutive effect.

	Year Ended December 31,	
	2023	2022
Excluded potentially dilutive weighted average securities (1):		
Options to purchase common stock	390,684	1,013,962
Unvested restricted stock	7,471,648	7,403,644
Financing warrants to purchase common stock	252,035	6,372
Total potential dilutive weighted average securities	8,114,367	8,423,978

(1) Securities are presented on a weighted average outstanding calculation as required if the securities were dilutive.

[Segment and geographic information](#)

Our chief operating decision maker (“CODM”) is the Chief Executive Officer. Operating segments are defined as components of an enterprise engaging in business activities for which discrete financial information is available and regularly reviewed by the CODM in deciding how to allocate resources and in assessing performance. The CODM views its operations and manages its business in one operating segment.

[Concentration of credit risk](#)

The Company generated revenue of \$25,000 and \$4,000 for the years ended December 31, 2023 and 2022, respectively, for the sale of lead finished goods to P. Kay Metals. Revenue from P. Kay Metals represented 100% of total revenue for the years ended December 31, 2023 and 2022. The Company did not have a trade receivable balance as of December 31, 2023 and December 31, 2022, respectively.

[Recent accounting pronouncements](#)

Recently issued accounting pronouncements not yet adopted

In November 2023, the Financial Accounting Standards Board (“FASB”) issued ASU No. 2023-07, Improvements to Reportable Segment Disclosures (Topic 280). This ASU updates reportable segment disclosure requirements by requiring disclosures of significant reportable segment expenses that are regularly provided to the Chief Operating Decision Maker (“CODM”) and included within each reported measure of a segment's profit or loss. This ASU also requires disclosure of the title and position of the individual identified as the CODM and an explanation of how the CODM uses the reported measures of a segment's profit or loss in assessing segment performance and deciding how to allocate resources. The ASU is effective for annual periods beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Adoption of the ASU should be applied retrospectively to all prior periods presented in the financial statements. Early adoption is also permitted. This ASU will likely result in us including the additional required disclosures when adopted. We are currently evaluating the provisions of this ASU and expect to adopt them for the year ending December 31, 2024.

In December 2023, the FASB issued ASU No. 2023-09, Improvements to Income Tax Disclosures (Topic 740). The ASU requires disaggregated information about a reporting entity's effective tax rate reconciliation as well as additional information on income taxes paid. The ASU is effective on a prospective basis for annual periods beginning after December 15, 2024. Early adoption is also permitted for annual financial statements that have not yet been issued or made available for issuance. This ASU will result in the required additional disclosures being included in our consolidated financial statements, once adopted.

Recently adopted accounting pronouncements

On January 1, 2023, the Company adopted ASU 2016-13 Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which replaces the incurred loss methodology with an expected loss methodology that is referred to as the current expected credit loss (“CECL”) methodology. The measurement of expected credit losses under the CECL methodology is applicable to financial assets measured at amortized cost. It also applies to Off-Balance Sheet (“OBS”) credit exposures not accounted for as insurance (loan commitments, standby letters of credit, financial guarantees, and other similar instruments) and net investments and leases recognized by a lessor in accordance with Topic 842 on leases. The Company adopted ASC 326 using the modified retrospective method. Results for reporting periods beginning after January 1, 2023 are presented under ASC 326 while prior period amounts continue to be reported in accordance with previously applicable GAAP. As of its adoption date of January 1, 2023, the Company did not record a transition adjustment related to the adoption of ASC 326. The adoption of this standard did not have a material impact on the Company's financials as of December 31, 2023.

In August 2020, the FASB issued ASU 2020-06, Debt - Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity, which is intended to simplify the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity. The guidance allows for either full retrospective adoption or modified retrospective adoption. The guidance is effective for the Company in the first quarter of fiscal year 2024 and early adoption is permitted. The Company elected early adoption of ASU 2020-06 in the first quarter of its fiscal year 2023 on a modified retrospective basis. There was no material impact to the financial statements as a result of the adoption.

3. Revenue recognition

The Company has historically generated revenues by recycling lead acid batteries (“LABs”) and selling the recovered lead to its customers.

The Company was not in commercial production in 2023 or 2022. The nominal revenue generated during the years ended December 31, 2023 and December 31, 2022 resulted from the sale of lead finished goods that were generated during operation of the TRIC facility prior to the November 2019 fire at our TRIC facility. Revenue from products transferred to customers at a single point in time with the delivery of the Company’s products to customers accounted for 100% of our revenue during the years ended December 31, 2023 and December 31, 2022.

4. Lease receivable

The Company entered into an Industrial Lease Agreement with LINICO Corporation, a Nevada corporation, or (“LINICO”), dated February 15, 2021 pursuant to which the Company leased to LINICO the 136,750 square foot recycling facility at TRIC. The lease commenced April 1, 2021 and expired on March 31, 2023. LINICO agreed to a purchase price of \$15.25 million, and paid a nonrefundable deposit of \$1.25 million in October 2021, and a second nonrefundable deposit of \$2 million in October 2022, per the terms of the agreement, both of which were applied towards the purchase price. The lease agreement was a triple-net lease pursuant to which LINICO was responsible for all fixed costs, including maintenance, utilities, insurance, and property taxes. The lease agreement provided for LINICO’s monthly lease payments starting at \$68,000 per month and increasing to \$100,640 in the last six months of the lease.

With respect to the portion of the facility that was damaged in the November 2019 fire, consisting of approximately 30,000 square feet, the Company was obligated to complete the clean-up of the damaged area, at the Company's expense and repair all damage to the damaged area, at the Company's expense. Repairs and clean up were completed in 2022. With regard to the equipment on-site at TRIC, the Company granted LINICO the right of first offer to purchase any equipment the Company offers for sale. The lease agreement contained customary representations, warranties and indemnities on the part of both parties. At the beginning of 2022, LINICO purchased approximately \$0.8 million of equipment.

The Company accounted for the Industrial Lease and Option to Purchase Agreement as a sales-type lease. As a component of the accounting for the agreement, the Company recognized at the inception the estimated fair market value of the land and plant of \$17.0 million as a lease receivable, which was reflected on the Company's condensed consolidated balance sheets as of June 30, 2021. The implied interest rate of 0.5% was utilized for the amortization of the scheduled building lease/purchase payments outlined in the agreement. The Company applied the monthly payments received as a reduction to lease receivable and interest income. The interest income recognized from the agreement is included in "Interest and other income" on the Company's consolidated statements of operations. On April 26, 2023, Comstock Inc. exercised their option to purchase the facility at which time the purchase price of \$15.25 million was applied against the lease receivable. For the year ended December 31, 2023 and 2022, the Company recognized a reduction in the lease receivable balance of approximately \$15,527,000 and \$920,000, respectively, and recorded \$24,000 and \$76,000 of interest income, respectively, related to this agreement. The lease expired in March 2023.

5. Inventory

Inventory consisted of the following (in thousands):

	December 31,	
	2023	2022
Finished goods	\$ —	\$ 28
Work in process	135	—
Raw materials	794	250
Total inventory	<u>\$ 929</u>	<u>\$ 278</u>

6. Assets held for sale

Assets are classified as held for sale when, among other factors, they are identified and marketed for sale in their present condition, management is committed to their disposal, and the sale of the asset is probable within one year. Management believes these assets are no longer necessary for the Company's future operating plans. As of December 31, 2023 and 2022, Aqua Metals had assets with a book value of nil and \$47,000 classified as assets held for sale, respectively.

At December 31, 2023 and 2022, the Company compared the carrying value of the assets held for sale against current fair market values. We determined the carrying value needed to be reduced to align with current fair market values. During the years ended December 31, 2023 and 2022 we recognized nil and \$579,000 impairment of assets held for sale, respectively.

7. Property, plant and equipment, net

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

Asset Class	Useful Life (Years)	December 31,	
		2023	2022
Operational equipment	3 - 10	\$ 3,581	\$ 1,445
Lab equipment	5	817	730
Computer equipment	3	89	6
Office furniture and equipment	3	90	90
Leasehold improvements	2.5	80	80
Land	-	1,141	—
Building	39	3,131	—
Equipment under construction		3,047	6,486
		11,976	8,837
Less: accumulated depreciation		(1,629)	(1,494)
Property, plant and equipment, net		\$ 10,347	\$ 7,343

Property, plant and equipment depreciation expense was \$0.9 million and \$0.5 million for the years ended December 31, 2023 and December 31, 2022, respectively. Equipment under construction is comprised of our lithium-ion battery recycling commercial equipment along with various components being manufactured or installed by the Company.

8. Intellectual property, net

Intellectual property, net, is comprised of the following (in thousands):

	2023	2022
Intellectual property	\$ 1,794	\$ 1,794
Accumulated amortization	(1,513)	(1,333)
Intellectual property, net	\$ 281	\$ 461

Amortization expense was \$180,000 and \$179,000 for the years ended December 31, 2023 and December 31, 2022, respectively.

Estimated future amortization is as follows as of December 31, 2023 (in thousands):

2024	\$ 135
2025	70
2026	51
2027	25
Total estimated future amortization	\$ 281

9. Investments

On February 15, 2021, the Company entered into a Series A Preferred Stock Purchase Agreement with LINICO Corporation, a Nevada Corporation, that provided for the Company's issuance of 375,000 shares ("Aqua Shares") of the Company's common stock in consideration of LINICO's issuance of 1,500 shares of its Series A Preferred Stock, at a stated aggregate value of \$1,500,000, along with a three-year warrant ("Series A Warrant") to purchase an additional 500 shares of LINICO Series A Preferred Stock at an exercise price of \$1,000 per share. During the first quarter of 2022, the Company exercised the warrant for all 500 LINICO Series A Preferred shares. Following the exercise, the Company held a total of 2,000 shares of the Series A Preferred Stock representing approximately 12% of LINICO common stock on a fully diluted basis.

The LINICO Series A Preferred Stock is senior to all other capital stock of LINICO with regard to dividends and distributions upon liquidation, dissolution and sale of the company. Each share of LINICO Series A Preferred Stock is entitled to one vote per share and votes with the common stock on all matters, subject to certain protective provisions that require the approval of the holders of the Series A Preferred Stock voting as a class. The Series A Preferred Stock accrues a cumulative dividend of 8% per annum on the original stated value of \$1,000 per share, and all accrued and unpaid dividends on the Series A Preferred Stock must be paid in full prior to the payment of any dividends on any other shares of LINICO capital stock. In the event of any liquidation or dissolution of LINICO, which would include a sale of LINICO, the holders of the Series A Preferred Stock shall receive the return of their stated value of \$1,000 per share plus all accrued and unpaid dividends prior to any distribution to the holders of any other capital stock of LINICO, following which the holders of the Series A Preferred Stock shall participate in the distribution of any remaining assets with the holders of the junior stock on an as-converted basis. The Series A Preferred Stock is convertible into shares of LINICO common stock at the Company's option and is automatically converted into LINICO common stock upon the election of the holders of a majority of the LINICO Series A Preferred Stock or upon a qualifying IPO of LINICO common stock. The Series A Preferred Stockholders are also provided with preemptive rights allowing them the right to purchase their proportional share of certain future LINICO equity issuances.

The Series A Preferred Stock Purchase Agreement includes customary representations, warranties, and covenants by LINICO and the Company.

As LINICO's sale of the 375,000 of Aqua Shares resulted in net proceeds to LINICO that were less than \$1,500,000, the Company was required to pay LINICO the difference of \$232,000 in cash in March 2021.

In connection with the investment transactions, the Company also entered into an Investors Rights Agreement and a Voting Agreement, each dated February 15, 2021, pursuant to which LINICO granted the Company customary demand and piggyback registration rights, information rights and the right to nominate one person to the LINICO board of directors as long as the Company is the owner of at least 10% of the LINICO common stock on a fully-diluted basis.

Comstock Inc., a Nevada corporation (NYSE-MKT: LODE), is the beneficial owner of approximately 88% of the common shares of LINICO. The Company's Chief Financial Officer, Judd Merrill, was a member of the board of directors of Comstock Inc. until April 5, 2023.

During the year ended December 31, 2023, the Company sold its stock in LINICO and recorded an impairment of \$1,400,000 and a receivable of \$600,000. The proceeds will be received over a 12 month installment starting in January 2024.

10. Other assets

Other assets consist of the following (in thousands):

	December 31,	
	2023	2022
Nevada facilities Right of Use Assets (1)	\$ 222	\$ 463
Equipment deposits (2)	4,291	6
Other assets	160	20
Total other assets, non-current	<u>\$ 4,673</u>	<u>\$ 489</u>

(1) See Footnote 12.

(2) Deposits for equipment to be acquired and utilized at the Company's Phase One build-out of our recycling campus at TRIC.

11. Accrued liabilities

Accrued liabilities consist of the following (in thousands):

	December 31,	
	2023	2022
Property, plant and equipment related	\$ 1,857	\$ 770
Class action settlement	—	500
Payroll related	506	418
Professional services	26	51
Other	78	41
Total accrued liabilities	<u>\$ 2,467</u>	<u>\$ 1,780</u>

12. Leases

As of December 31, 2023, the Company maintained two operating leases for real estate. The Company's operating leases have terms of 36 and 37 months and include one or more options to extend the duration of the agreements. These operating leases are included in "Other assets" on the Company's December 31, 2023 and 2022 consolidated balance sheets and represent the Company's right to use the underlying assets for the term of the leases. The Company's obligation to make lease payments are included in "Lease liability, current portion" and "Lease liability, non-current portion" on the Company's December 31, 2023 and 2022 consolidated balance sheets. The Alameda lease and sublease agreement ended during the first quarter of 2022. The Company recognized sublease income of \$85,000 for the twelve months ended December 31, 2022.

Based on the present value of the lease payments for the remaining lease term of the Company's existing operating leases, as of December 31, 2023, total right-of-use assets were approximately \$222,000 and operating lease liabilities were approximately \$231,000. As of December 31, 2022, total right-of-use assets were approximately \$463,000 and operating lease liabilities were approximately \$475,000. For its real estate leases, the Company has elected the practical expedient to not separate a lease into lease and nonlease components.

The Company currently maintains one finance lease for equipment. In November 2021, the Company entered into a finance lease for a modular laboratory which expires in October of 2024. The Company's obligation to make finance lease payments are included in "Lease liability, current portion" and "Lease liability, non-current portion" on the Company's December 31, 2023 and 2022 consolidated balance sheets.

Information related to the Company's right-of-use assets and related lease liabilities were as follows (in thousands):

	Twelve Months Ended December 31, 2023	Twelve Months Ended December 31, 2022
	Cash paid for operating lease liabilities	\$ 266
Operating lease cost	\$ 262	\$ 338
Cash paid for finance lease liabilities	\$ 59	\$ 61
Interest expense	\$ 6	\$ 9
	December 31, 2023	December 31, 2022
Weighted-average remaining lease term (years) - operating leases	0.9	1.9
Weighted-average discount rate - operating leases	6.18%	6.16%
Weighted-average remaining lease term (years) - finance lease	0.8	1.3
Weighted-average discount rate - finance lease	8.17%	7.50%

Maturities of lease liabilities as of December 31, 2023 were as follows (in thousands):

Due in 12-month period ended December 31,

	Operating Leases	Finance Leases
2024	\$ 238	\$ 45
Less imputed interest	238	45
Total lease liabilities	<u>(7)</u>	<u>(1)</u>
	<u>\$ 231</u>	<u>\$ 44</u>
Current lease liabilities	\$ 231	\$ 44
Total lease liabilities	<u>\$ 231</u>	<u>\$ 44</u>

13. Note payable

On September 30, 2022, Aqua Metals Reno, Inc., our wholly-owned subsidiary, entered into a Loan Agreement with Summit Investment Services, LLC, a Nevada limited liability company as to an undivided 90.8334% interest, Darren McBride, Trustee of the Arduino 1 Trust, U/A dated April 25, 2022, as to an undivided 8.3333% interest and Jason Yelowitz, Trustee of the Jason Yelowitz 2006 Trust, Dated March 31, 2006 as to an undivided .8333% interest (collectively, the “Lenders”), pursuant to which the Lenders provided us with a loan in the amount of \$6,000,000. The loan accrued interest at a fixed annual rate of 8.50%. Interest-only payments were due monthly for the first twenty-four months and the principal and all unpaid accrued interest was due on September 29, 2024. The loan was collateralized by a first priority lien interest on our land and recycling facility at TRIC. The costs associated with obtaining the loan were recorded as a reduction to the carrying amount of the note and were being amortized over the life of the loan. We had the right to prepay the loan at any time, provided that we must pay guaranteed minimum interest of \$255,000 (6-months of interest). The Loan Agreement includes representations, warranties, and affirmative and negative covenants that are customary of institutional loan agreements. On April 26, 2023, the property at TRIC was sold and the proceeds from the sale were used to pay off the loan. Upon the completion of the sale, the commitments and obligations per our loan agreement with the Lenders were terminated. All amounts outstanding on April 26, 2023 were paid.

On February 1, 2023, Aqua Metals Reno, Inc., our wholly-owned subsidiary, entered into a Loan Agreement with Summit Investment Services, LLC, a Nevada limited liability company (the “Lender”), pursuant to which the Lender provided us with a loan in the amount of \$3,000,000. The loan proceeds were used to purchase a building located at 2999 Waltham Way McCarran, NV 89434 (the “Building”). The loan accrues interest at a fixed annual rate of 9.50%. Interest-only payments are due monthly for the first twenty-four months and the principal and all unpaid interest is due on February 1, 2025. We have the right to prepay the loan at any time, provided that we must pay guaranteed minimum interest of \$213,750 (9-months of interest). The Loan Agreement includes representations, warranties, and affirmative and negative covenants that are customary of institutional loan agreements. As of December 31, 2023, the Company was in compliance with all of the covenants. The loan is collateralized by a first priority lien on the building and site improvements, and is guaranteed by Aqua Metals, Inc.

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

	December 31,	
	2023	2022
Note payable, current portion		
The Lenders	\$ —	\$ 6,000
Summit Investment Services, LLC	35	—
Less issuance costs	—	(101)
Total note payable, current portion	\$ 35	\$ 5,899
Notes payable, non-current portion		
Summit Investment Services, LLC	\$ 3,000	\$ —
Less issuance costs	(77)	—
Total notes payable, non-current portion	\$ 2,923	\$ —

14. Stockholders’ equity

Authorized capital

The authorized capital stock of the Company consists of 200,000,000 shares of common stock, par value \$0.001 per share. In the event of liquidation of the Company, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. The outstanding shares of common stock are fully paid and non-assessable.

The holders of the Company’s common stock are entitled to one vote per share. Holders of common stock are entitled to receive a ratable share of dividends, if any, as may be declared by the board of directors.

Other shares issued

During the year ended December 31, 2022, the Company issued 2,150,467 shares of common stock upon vesting of RSUs granted by the Company to management and employees.

During the year ended December 31, 2022, the Company issued 125,264 shares of common stock upon vesting of RSUs granted to Board members.

During the year ended December 31, 2022, the Company issued 28,223 shares of common stock to a Board member related to director fees.

During the year ended December 31, 2022, the Company issued 19,176 shares of common stock to a former Board member to fulfill obligations related to a consulting agreement.

During the year ended December 31, 2022, the Company issued 6,742,069 shares of common stock pursuant to the At The Market Issuance Sales Agreement for net proceeds of \$6.5 million.

During the year ended December 31, 2023, the Company issued 1,462,814 shares of common stock upon vesting of Restricted Stock Units ("RSUs") granted by the Company to management and employees, including 510,632 of reissued treasury stock. We withheld 939,198 shares to satisfy approximately \$1,091,000 of employees' tax obligations. We treat shares of common stock withheld for tax purposes on behalf of our employees in connection with the vesting of RSUs in a similar manner as common stock repurchases and reported as treasury stock.

During the year ended December 31, 2023, the Company issued 170,692 shares of common stock upon vesting of RSUs granted to Board members.

During the year ended December 31, 2023, the Company issued 104,227 shares of common stock to a Board member related to director fees and other director incentives.

During the year ended December 31, 2023, the Company issued 15,781 shares of common stock to a former Board member to fulfill obligations related to consulting services.

During the year ended December 31, 2023, the Company issued 3,244,302 shares of common stock pursuant to the At The Market Issuance Sales Agreement for net proceeds of \$3.8 million.

During the year ended December 31, 2023, the Company issued 192,707 shares of common stock pursuant to the employee stock purchase plan.

During the year ended December 31, 2023, the Company issued 469,366 shares of common stock upon the settlement of the securities class action lawsuit.

In July 2023, the Company completed a public offering of 18,193,000 shares of its common stock, for net proceeds of \$18.3 million.

In August 2023, the Company issued 4,545,455 shares of its common stock pursuant to that certain Securities Purchase Agreement (the "Yulho SPA"), with Yulho Co, Ltd., for net proceeds of \$4.6 million.

Warrants outstanding

In July 2023, the Company issued a warrants to purchase 363,860 shares of the Company's common stock to the underwriter of the Company's public offering, equal to 2% of the 18,193,000 shares sold. The warrants are exercisable at \$1.375 per share, commencing six months after July 17, 2023. The warrants have an expiration date of 5 years from the date of issuance and will expire on July 17, 2028. Using the Black Scholes Merton model, the Company estimated the warrants' fair value to be \$388,000 with the assumptions as follows: \$1.54 per share fair value on the date of issuance; 5-year term; 81.9% volatility; 3.81% discount rate and 0% annual dividend rate. Warrants are accounted for under the equity classification.

In August 2023, the Company issued a warrant to purchase 205,761 shares of the Company's common stock to the underwriter of the transaction in connection with the Yulho SPA. The warrants have an expiration date of 5 years from the date of issuance and are exercisable immediately at \$1.25 per share. The warrant will expire on August 4, 2028. Using the Black Scholes Merton model, the Company estimated the warrants' fair value to be \$181,000 with the assumptions as follows: \$1.27 per share fair value on the date of issuance; 5-year term; 82.3% volatility; 3.81% discount rate and 0% annual dividend rate. Warrants are accounted for under the equity classification.

Warrants outstanding to purchase shares of the Company's common stock at a weighted average exercise price per share are as follows:

Exercise Price per Share	Expiration Date	Shares Subject to Purchase at December 31, 2023
\$ 1.90	1/22/2024	6,372
\$ 1.38	7/17/2028	363,860
\$ 1.25	8/4/2028	205,761

Stock-based compensation

2014 Stock Incentive Plan

In 2014, the Board of Directors adopted the Company's stock incentive plan (the "2014 Plan"). The 2014 Plan was most recently amended and restated effective as of the Company's 2017 Annual Stockholders' Meeting. A total of 2,127,306 shares of common stock was authorized for issuance pursuant to the 2014 Plan at the time of its most recent amendment and restatement in 2017. The 2014 Plan provides for the following types of stock-based awards: incentive stock options; non-statutory stock options; restricted stock; and performance stock. The 2014 Plan, under which equity incentives may be granted to employees and directors under incentive and non-statutory agreements, requires that the option price may not be less than the fair value of the stock at the date the option is granted. Option awards are exercisable until their expiration, which may not exceed 10 years from the grant date. The restricted shares that are issued from the 2014 Plan normally vest in six equal tranches over three years.

2019 Stock Incentive Plan

In 2019, the Board of Directors adopted the Company's stock incentive plan (the "2019 Plan"). The 2019 Plan was most recently amended and restated effective as of the Company's 2020 Annual Stockholders' Meeting. A total of 18,500,000 shares of common stock was authorized for issuance pursuant to the 2019 Plan. The 2019 Plan provides for the following types of stock-based awards: incentive stock options; non-statutory stock options; restricted stock; and performance stock. The 2019 Plan, under which equity incentives may be granted to employees and directors under incentive and non-statutory agreements, requires that the option price may not be less than the fair value of the stock at the date the option is granted. Option awards are exercisable until their expiration, which may not exceed 10 years from the grant date. The restricted shares that are issued from the 2019 Plan normally vest in six equal tranches over three years.

Stock-based compensation expense recorded was allocated as follows (in thousands):

	Year ended December 31,	
	2023	2022
Cost of product sales	\$ 130	\$ 104
Research and development cost	57	36
General and administrative expense	2,347	2,115
Total	\$ 2,534	\$ 2,255

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The following table summarizes the stock-based compensation plan activity and related information through December 31, 2023.

	Number of Shares Available for Grant	Options Outstanding		RSUs Outstanding	
		Number of Shares	Weighted- Average Exercise Price Per Share	Number of RSUs	Weighted- Average Grant Date Fair Value Per Share
Balance at December 31, 2021	1,668,001	1,026,712	\$ 4.44	5,246,875	\$ 1.07
Authorized	7,000,000	—	—	—	—
Granted	(3,691,202)	—	—	3,691,202	0.69
Exercised/ Released	—	—	—	(2,297,130)	0.90
Forfeited	285,455	(32,445)	5.78	(253,010)	1.16
Balance at December 31, 2022	5,262,254	994,267	4.40	6,387,937	0.91
Authorized	—	—	—	—	—
Granted	(5,110,852)	—	—	5,110,852	0.85
Exercised/ Released	—	—	—	(2,676,931)	0.99
Forfeited (1)	321,634	(994,267)	4.40	(167,367)	0.92
Returned to Plan	947,418	—	—	—	—
Balance at December 31, 2023	1,420,454	—	—	8,654,491	\$ 0.86

There were no option exercises during the year ended December 31, 2023 and December 31, 2022, respectively.

As of December 31, 2023, there is approximately \$6.1 million of total unrecognized compensation cost related to the unvested share-based (option and RSU) compensation arrangements granted under the stock-based compensation plans. The remaining unrecognized compensation cost will be recognized over a weighted-average period of 2.4 years.

There were no outstanding stock options as of December 31, 2023.

Our policy is to fulfill the required shares for a restricted share vesting by first depleting any available Treasury Stock held by the Company and the remaining outstanding balance is satisfied with unissued shares.

Stock Price Hurdle Awards

In 2023, the Company granted stock price hurdle restricted share units as a result of the pilot plant commissioning. The stock price hurdle restricted share units expire three years from the date of grant and vest based on the Corporation's common stock achieving an absolute stock price hurdles based on a 5-day VWAP at any time over the three-year term.

The following is a summary of the changes in outstanding stock price hurdle awards share units for 2023:

	Number of Shares	Weighted- Average Grant Date Fair Value Per Share
Outstanding at January 1, 2023	—	—
Granted	475,282	0.56
Outstanding at December 31, 2023	475,282	0.56

The fair value of stock price hurdle awards were calculated on the date of grant using a Monte Carlo simulation model utilizing several key assumptions, including expected Company share price volatility, the risk-free interest rate, the cost of equity, and other award design features. The following are weighted-average key assumptions for 2023 grants.

	2023
Volatility	91.40%
Risk-free interest rate	4.30%

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2022 Restricted stock units

In January 2022, the Company granted 44,780 RSUs, all of which were subject to vesting, with a grant date fair value of \$50,000 to employees. The shares vest in three equal installments over a three-year period.

In February 2022, the Company granted 47,933 RSUs, all of which were subject to vesting, with a grant date fair value of \$50,000 to employees. The shares vest in three equal installments over a three-year period.

In April 2022, the Company granted 9,615 RSUs, all of which were subject to vesting, with a grant date fair value of \$10,000 to employees. The shares vest in three equal installments over a three-year period.

In May 2022, the Company granted 182,293 RSUs, all of which were subject to vesting, with a grant date fair value of \$175,000 to Board Members. The shares vest in four equal installments over a twelve-month period.

In June 2022, the Company granted 12,121 RSUs, all of which were subject to vesting, with a grant date fair value of \$10,000 to employees. The shares vest in three equal installments over a three-year period.

In July 2022, the Company granted 143,708 RSUs, all of which were subject to vesting, with a grant date fair value of \$120,000 to employees. The shares vest in three equal installments over a three-year period.

In August 2022, the Company granted 10,537 RSUs, all of which were subject to vesting, with a grant date fair value of \$10,000 to employees. The shares vest in three equal installments over a three-year period.

In October 2022, the Company granted 28,223 RSUs, all of which were vested immediately, with a fair value of \$21,308 to a Board Member.

In December 2022, the Company granted 27,739 RSUs, all of which were subject to vesting, with a grant date fair value of \$20,000 to employees. The shares vest in three equal installments over a three-year period.

In December 2022, the Company granted 3,184,253 RSUs, all of which were subject to vesting, with a grant date fair value of \$2,368,682 to employees. The shares vest in six equal semi-annual installments over a three-year period.

2023 Restricted stock units

During the first quarter of 2023, the Company granted 64,149 RSUs, all of which were subject to vesting, with a grant date fair value of \$70,000 to employees. The shares vest in three equal installments over a three-year period.

During the second quarter of 2023, the Company granted 204,547 RSUs, all of which were subject to vesting, with a grant date fair value of \$225,000 to Board Members. The shares vest in four equal installments over a twelve-month period.

During the third quarter of 2023, the Company granted 136,254 RSUs, all of which were subject to vesting, with a grant date fair value of \$155,000 to employees. The shares vest in three equal installments over a three-year period.

During the fourth quarter of 2023, the Company granted 4,007,972 RSUs, all of which were subject to vesting, with a grant date fair value of \$3,422,275 to employees. The shares vest in six equal semi-annual installments over a three-year period. In addition, the Company granted 52,632 RSUs, all of which were subject to vesting, with a grant date fair value of \$41,513 to employees. The shares vest in three equal installments over a three-year period.

During the fourth quarter of 2023, the Company granted 65,789 RSUs, all of which were subject to vesting, with a grant date fair value of \$51,891 to an employee. All shares vest after six-months.

During the fourth quarter of 2023, the Company granted 475,282 stock price hurdle restricted stock units to employees. The stock price hurdle restricted share units expire three years from the date of grant and vest based on the Corporation's common stock achieving an absolute stock price hurdles based on a 5-day VWAP at any time over the three-year term.

Total intrinsic value of RSUs vested and released during 2023 was \$3.1 million. Intrinsic value of RSUs outstanding at December 31, 2023 was \$6.6 million.

Reserved shares

At December 31, 2023, the Company has reserved shares of common stock for future issuance as follows:

	Number of Shares
Equity Plan	
Subject to outstanding restricted shares	8,654,491
Available for future grants	1,420,454
Officer and Director Purchase Plan	237,382
Warrants	575,993
2022 Employee Stock Purchase Plan	807,287
Total reserved shares	<u>11,695,607</u>

15. Commitments and contingencies

We may, from time to time, be party to litigation and subject to claims incident to the ordinary course of business. As our growth continues, we may become party to an increasing number of litigation matters and claims. The outcome of litigation and claims cannot be predicted with certainty, and the resolution of any future matters could materially affect our future financial position, results of operations or cash flows. We are not party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, results of operations, financial condition or cash flows.

16. Related party transactions

The Company has adopted a policy that any transactions with directors, officers, beneficial owners of five percent or more of our common shares, any immediate family members of the foregoing or entities of which any of the foregoing are also officers or directors or in which they have a financial interest, will only be on terms consistent with industry standards and approved by a majority of the disinterested directors of our board.

17. Income taxes

Loss before income tax expense consists of the following (in thousands):

	Year ended December 31,	
	2023	2022
US	\$ (23,938)	\$ (15,429)
Foreign	—	—
Total	\$ (23,938)	\$ (15,429)

The components of the provision for income tax expense consist of the following (in thousands):

	Year ended December 31,	
	2023	2022
Current		
Federal	\$ —	\$ —
State	2	2
Deferred		
Federal	—	—
State	—	—
Total provision for income taxes	\$ 2	\$ 2

Reconciliation of the statutory federal income tax rates consist of the following:

	Year ended December 31,	
	2023	2022
Tax at federal statutory rate	21.00%	21.00%
State tax, net of federal benefit	(0.01)%	(0.01)%
Valuation allowance	(19.95)%	(19.45)%
Disallowed executive compensation	(1.45)%	(1.80)%
Equity compensation	0.08%	0.11%
Other	0.32%	0.14%
Provision for taxes	(0.01)%	(0.01)%

The components of deferred tax assets (liabilities) included on the consolidated balance sheets are as follows (in thousands):

	As of December 31,	
	2023	2022
Deferred tax assets		
Capitalized start-up costs	\$ 2,538	\$ 2,842
Credits	492	405
Fixed assets	896	618
Net operating losses	36,287	32,505
Others	1,891	995
Total gross deferred tax assets	42,104	37,365
Valuation allowance	(42,057)	(37,282)
Total gross deferred tax assets (net of valuation allowance)	\$ 47	\$ 83
Deferred tax liabilities		
Patents	\$ (47)	\$ (83)
Other	—	—
Total gross deferred tax liabilities	(47)	(83)
Net deferred tax assets	\$ —	\$ —

Based on the available objective evidence at this time, management believes that it is more-likely-than-not that the net deferred tax assets of the Company will not be realized. Accordingly, management has applied a full valuation allowance against net deferred tax assets at both December 31, 2023 and December 31, 2022. The net valuation allowance increased by approximately \$4.8 million during the year ended December 31, 2023. The increase in net valuation allowance primarily relates to net operating losses generated during 2023.

At December 31, 2023, the Company has Federal and California net operating loss carryforwards of approximately \$171.4 million and \$4.1 million, respectively, which will begin to expire on December 31, 2034 for Federal and California purposes. Approximately \$146.2 million of federal net operating losses were generated after December 31, 2017 and thus do not expire. Approximately \$25.2 million of the federal net operating losses and \$4.1 million state net operating loss carryforwards will begin to expire in December 31, 2034, if not utilized.

Utilization of the Company's net operating loss may be subject to substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code and similar state provisions. Such an annual limitation could result in the expiration of net operating loss carryforwards prior to utilization.

At December 31, 2023, the Company had research and development credits carryforward of approximately \$0.5 million and \$0.5 million for Federal and California income tax purposes, respectively. If not utilized, the Federal research and development credits carryforward will begin to expire on December 31, 2034. The California credits can be carried forward indefinitely.

The Company's policy is to account for interest and penalties as income tax expense. As of December 31, 2023, the Company had no interest related to unrecognized tax benefits. No amounts of penalties related to unrecognized tax benefits were recognized in the provision for income taxes.

Effective January 1, 2022, the Company is subject to mandatory capitalization of Section 174 research and development expenditures. The capitalized expenditures are subject to amortization over five years for expenses incurred within the U.S. The Company capitalized \$3.6 million and \$3.6 million during the years ended December 31, 2023 and December 31, 2022, respectively.

The Company maintains liabilities for uncertain tax positions. These liabilities involve considerable judgement and estimation and are continuously monitored by management based on the best information available, including changes in tax regulations, the outcome of relevant court cases, and other information. The Company recognizes potential accrued interest and penalties related to unrecognized tax benefits as income tax expense. At December 31, 2023, the Company's total amount of unrecognized tax benefit was approximately \$0.5 million, none of which will affect the effective tax rate, if recognized. The Company does not expect its unrecognized benefits to change materially over the next twelve months.

The Company files income tax returns with the United States federal government and the State of California. The Company's tax returns for 2020 to 2022 remain open to audit for Federal and California purposes.

18. 401(k) Savings plan

The Company maintains a defined-contribution savings plan under Section 401(k) of the Internal Revenue Code (the "401(k) Plan"). The 401(k) Plan covers all employees who meet defined minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pretax or after tax basis. Beginning in January 2021, the Plan included a maximum of 4% employer matching contributions with immediate vesting. We recognized \$180,000 and \$111,000 of expenses related to employer contributions for the 401(k) savings plan during the years ended December 31, 2023 and 2022, respectively.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

(a) Evaluation of disclosure controls and procedures.

Our management, with the participation of our chief executive officer and chief financial officer evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Based upon that evaluation, our management, including our chief executive officer and chief financial officer, concluded that for the reasons described below our disclosure controls and procedures were effective as of December 31, 2023 in ensuring all material information required to be filed has been made known in a timely manner.

(b) Changes in internal control over financial reporting.

There were no changes to our internal control over financial reporting, as defined in Rules 13a-15(f) under the Exchange Act that occurred during the fiscal quarter ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

(c) Management's report on internal controls over financial reporting.

Our management is responsible for establishing and maintaining adequate internal controls over financial reporting, as defined under Rule 13a-15(f) under the Exchange Act. Our management has assessed the effectiveness of our internal controls over financial reporting as of December 31, 2023 based on the framework established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Our internal control system was designed to provide reasonable assurance to our management and board of directors regarding the preparation and fair presentation of published financial statements. Our management, with the participation of our chief executive officer and chief financial officer assessed the effectiveness of our internal control over financial reporting as of December 31, 2023, and based on that evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2023.

This report does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our registered public accounting firm pursuant to the rules of the Securities and Exchange Commission that permit us to provide only management's report in this annual report.

Item 9B. Other Information

During the year ended December 31, 2023, no director or officer adopted or terminated (i) any contract, instruction or written plan for the purchase or sale of securities of the Company intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) or (ii) any "non-Rule 10b5-1 trading arrangement" as defined in paragraph (c) of item 408 of Regulation S-K.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

The information required by Part III is omitted from this report because we will file a definitive proxy statement within 120 days after the end of our 2023 fiscal year pursuant to Regulation 14A for our 2024 Annual Meeting of Stockholders, or the 2024 Proxy Statement, and the information to be included in the 2024 Proxy Statement is incorporated herein by reference.

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item will be contained in the 2024 Proxy Statement and is hereby incorporated by reference.

Item 11. Executive Compensation

The information required by this item will be contained in the 2024 Proxy Statement and is hereby incorporated by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item will be contained in the 2024 Proxy Statement and is hereby incorporated by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item will be contained in the 2024 Proxy Statement and is hereby incorporated by reference.

Item 14. Principal Accountant Fees and Services

The information required by this item will be contained in the 2024 Proxy Statement and is hereby incorporated by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) Financial statements

Reference is made to the Index and Financial Statements under Item 8 in Part II hereof where these documents are listed.

(b) Financial statement schedules

Financial statement schedules are either not required or the required information is included in the consolidated financial statements or notes thereto filed under Item 8 in Part II hereof.

(c) Exhibits

The exhibits to this Annual Report on Form 10-K are set forth below. The exhibit index indicates each management contract or compensatory plan or arrangement required to be filed as an exhibit.

Number	Exhibit Description	Method of Filing
3.1	First Amended and Restated Certificate of Incorporation of the Registrant	Incorporated by reference from the Registrant's Registration Statement on Form S-1 filed on June 9, 2015.
3.2	Third Amended and Restated Bylaws of the Registrant	Incorporated by reference from the Registrant's Current Report on Form 8-K filed on January 21, 2022.
3.3	Certificate of Amendment to 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 25, 2015.
3.4	Certificate of Amendment to the First Amended and Restated Certificate of Incorporation	Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q filed on May 9, 2019.
3.5	Certificate of Amendment to the First Amended and Restated Certificate of Incorporation	Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q filed on July 21, 2022
4.1	Specimen Certificate representing shares of common stock of Registrant	Incorporated by reference from the Registrant's Registration Statement on Form S-1 filed on July 20, 2015.
4.2	Underwriting Agreement dated as of July 18, 2023 between the Company and The Benchmark Company, LLC	Incorporated by reference from the Registrant's Current Report on Form 8-K filed July 19, 2023
4.3	Warrant dated August 4, 2023 issued to Network 1 Financial Services, Inc.	Filed electronically herewith.
4.4	Warrant dated July 21, 2023 issued to The Benchmark Company, LLC	Filed electronically herewith.
4.5	Warrant dated January 22, 2019 issued to National Securities Corporation	Incorporated by reference from the Registrant's Current Report on Form 8-K filed January 17, 2019
4.10	Description of Capital Stock	Incorporated by reference from the Registrant's Annual Report on Form 10-K filed on February 25, 2022
10.1	Form of Indemnification Agreement entered into by the Registrant with its Officers and Directors	Incorporated by reference from the Registrant's Registration Statement on Form S-1 filed on June 9, 2015.
10.2*	Aqua Metals, Inc. Amended and Restated 2014 Stock Incentive Plan	Incorporated by reference from the Registrant's Proxy Statement on Form DEF 14A filed on April 24, 2017.
10.3	Loan Agreement dated January 27, 2023 with Summit Investment Services, LLC	Filed electronically herewith.
10.4*	Aqua Metals, Inc. Officer and Director Share Purchase Plan	Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q filed on November 9, 2017.

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<u>10.5*</u>	<u>Employment Agreement dated May 2, 2018 between the Registrant and Stephen Cotton</u>	Incorporated by reference from the Registrant's Current Report on Form 8-K filed on May 2, 2018.
<u>10.6*</u>	<u>Employment Agreement dated November 4, 2018 between the Registrant and Judd Merrill</u>	Incorporated by reference from the Registrant's Annual Report on Form 10-K filed on February 28, 2019.
<u>10.7*</u>	<u>Employment Agreement dated August 9, 2021 between the Registrant and Benjamin Taecker</u>	Incorporated by reference from the Registrant's Annual Report on Form 10-K filed on March 9, 2023.
<u>10.8*</u>	<u>Employment Agreement dated August 9, 2021 between the Registrant and Dave McMurtry</u>	Incorporated by reference from the Registrant's Annual Report on Form 10-K filed on March 9, 2023.
<u>10.9*</u>	<u>Aqua Metals 2019 Stock Incentive Plan</u>	Incorporated by reference from the Registrant's Definitive Proxy Statement filed on March 4, 2019
<u>10.10*</u>	<u>Loan Agreement dated September 30, 2022 with Summit Investment Services, LLC</u>	Incorporated by reference from the Registrant's Annual Report on Form 10-K filed on March 9, 2023.
<u>10.11*</u>	<u>Amended and Restated Executive Employment Agreement dated August 7, 2023 between the Registrant and Stephen Cotton</u>	Filed electronically herewith.
<u>10.12*</u>	<u>Amended and Restated Executive Employment Agreement dated August 7, 2023 between the Registrant and Judd Merrill</u>	Filed electronically herewith.
<u>10.13*</u>	<u>Amended and Restated Executive Employment Agreement dated August 7, 2023 between the Registrant and Benjamin Taecker</u>	Filed electronically herewith.
<u>10.14*</u>	<u>Amended and Restated Executive Employment Agreement dated August 7, 2023 between the Registrant and Dave McMurtry</u>	Filed electronically herewith.
<u>10.15*</u>	<u>Amended and Restated Aqua Metals 2022 Employee Stock Purchase Plan</u>	Incorporated by reference from the Registrant's Definitive Proxy Statement filed on April 5, 2023
<u>21.1</u>	<u>List of subsidiaries of Registrant.</u>	Filed electronically herewith.
<u>23.1</u>	<u>Consent of Armanino LLP, Independent Registered Public Accounting Firm.</u>	Filed electronically herewith.
<u>23.2</u>	<u>Consent of Forvis, LLP, Independent Registered Public Accounting Firm.</u>	Filed electronically herewith.
<u>31.1</u>	<u>Certification under Section 302 of the Sarbanes-Oxley Act of 2002.</u>	Filed electronically herewith.
<u>31.2</u>	<u>Certification under Section 302 of the Sarbanes-Oxley Act of 2002.</u>	Filed electronically herewith.
<u>32.1</u>	<u>Certifications Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.</u>	Filed electronically herewith.
<u>99.1</u>	<u>Aqua Metals Executive Officer Clawback Policy</u>	Filed electronically herewith.
101.INS	Inline XBRL Instance Document	Filed electronically herewith
101.SCH	Inline XBRL Taxonomy Extension Schema Document	Filed electronically herewith
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	Filed electronically herewith
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	Filed electronically herewith
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	Filed electronically herewith
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	Filed electronically herewith
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).	Filed electronically herewith

* Indicates management compensatory plan, contract or arrangement.

Item 16. Form 10-K Summary

Not provided

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this annual report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

AQUA METALS, INC.

Date: March 28, 2024

By: /s/ Stephen Cotton
Stephen Cotton,
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Stephen Cotton</u> Stephen Cotton	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	March 28, 2024
<u>/s/ Judd Merrill</u> Judd Merrill	Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>	March 28, 2024
<u>/s/Vincent L. DiVito</u> Vincent L. DiVito	Director, Chairman of the Board	March 28, 2024
<u>/s/ Edward Smith</u> Edward Smith	Director	March 28, 2024
<u>/s/ Peifang Zhang</u> Peifang Zhang	Director	March 28, 2024

NEITHER THESE SECURITIES NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THESE SECURITIES HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**SECURITIES ACT**") AND APPLICABLE STATE SECURITIES LAWS AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO (I) AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR (II) AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS.

AQUA METALS, INC.

WARRANT TO PURCHASE COMMON STOCK

Original Issue Date:
August 4, 2023

Aqua Metals, Inc., a Delaware corporation (the "**Company**"), hereby certifies that, for value received, Network 1 Financial Services, Inc. or its permitted registered assigns (the "**Holder**"), is entitled to purchase from the Company up to a total of [*] shares of common stock, \$0.001 par value (the "**Common Stock**"), of the Company (each such share, a "**Warrant Share**" and all such shares, the "**Warrant Shares**") at an exercise price per share equal to \$[*] (as adjusted from time to time as provided in Section 9 herein, the "**Exercise Price**"), at any time and from time to time from on or after the date hereof (the "**Trigger Date**") and through and including 5:00 P.M., prevailing Pacific time, on August 4, 202[*] (the "**Expiration Date**"), and subject to the following terms and conditions:

1. Consulting Agreement. This Warrant (this "**Warrant**") is issued pursuant to that certain Advisory Agreement dated April 3, 2023 between the Company and Nexperia Holdings Co., Ltd., as amended on August 10, 2023 (the "**Advisory Agreement**").

2. Registration of Warrants. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "**Warrant Register**"), in the name of the record Holder (which shall include the initial Holder or, as the case may be, any registered assignee to which this Warrant is permissibly assigned hereunder) from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

3. Registration of Transfers. The Company shall register the transfer of all or any portion of this Warrant in the Warrant Register, upon (i) surrender of this Warrant, with the Form of Assignment attached as Schedule 2 hereto duly completed and signed, to the Company's transfer agent or to the Company at its address specified herein (ii) delivery, at the request of the Company, of an opinion of counsel reasonably satisfactory to the Company to the effect that the transfer of such portion of this Warrant may be made pursuant to an available exemption from the registration requirements of the Securities Act of 1933 ("**Securities Act**") and all applicable state securities or blue sky laws and (iii) delivery by the transferee of a written statement to the Company making the representations and certifications as the Company may reasonably request to procure an exemption from Section 5 of the Securities Act. Upon any such registration or transfer, a new warrant to purchase Common Stock in substantially the form of this Warrant (any such new warrant, a "**New Warrant**") evidencing the portion of this Warrant so transferred shall be issued to the transferee, and a New Warrant evidencing the remaining portion of this Warrant not so transferred, if any, shall be issued to the transferring Holder. The acceptance of the New Warrant by the transferee thereof shall be deemed the acceptance by such transferee of all of the rights and obligations of a Holder of a Warrant.

4. Exercise and Duration of Warrants.

(a) All or any part of this Warrant shall be exercisable by the registered Holder at any time and from time to time on or after the Trigger Date and through and including 5:00 P.M. prevailing Pacific time on the Expiration Date. At 5:00 P.M., prevailing Pacific time, on the Expiration Date, the portion of this Warrant not exercised prior thereto shall be and become void and of no value and this Warrant shall be terminated and no longer outstanding.

(b) The Holder may exercise this Warrant by delivering to the Company (i) an exercise notice, in the form attached as Schedule 1 hereto (the "**Exercise Notice**"), appropriately completed and duly signed, (ii) payment of the Exercise Price for the number of Warrant Shares as to which this Warrant is being exercised (which may take the form of a "cashless exercise" if so indicated in the Exercise Notice and if a "cashless exercise" may occur at such time pursuant to Section 10 below), and the date such items are delivered to the Company (as determined in accordance with the notice provisions hereof) is an "**Exercise Date**." The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder. Execution and delivery of the Exercise Notice shall have the same effect as cancellation of the original Warrant and issuance of a New Warrant evidencing the right to purchase the remaining number of Warrant Shares.

5. Delivery of Warrant Shares. Upon exercise of this Warrant, the Company shall promptly issue or cause to be issued and cause to be delivered to or upon the written order of the Holder and in such name or names as the Holder may designate a certificate for the Warrant Shares issuable upon such exercise, with an appropriate restrictive legends. The Holder, or any Person permissibly so designated by the Holder to receive Warrant Shares, shall be deemed to have become the holder of record of such Warrant Shares as of the Exercise Date.

6. Charges, Taxes and Expenses. Issuance and delivery of certificates for shares of Common Stock upon exercise of this Warrant shall be made without charge to the Holder for any issue or transfer tax, transfer agent fee or other incidental tax or expense in respect of the issuance of such certificates, all of which taxes and expenses shall be paid by the Company; *provided, however*, that the Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the registration of any certificates for Warrant Shares or Warrants in a name other than that of the Holder or an Affiliate thereof. The Holder shall be responsible for all other tax liability that may arise as a result of holding or transferring this Warrant or receiving Warrant Shares upon exercise hereof.

7. Replacement of Warrant. If this Warrant is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation hereof, or in lieu of and substitution for this Warrant, a New Warrant, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction (in such case) and, in each case, a customary and reasonable indemnity (which shall not include a surety bond), if requested. Applicants for a New Warrant under such circumstances shall also comply with such other reasonable regulations and procedures and pay such other reasonable third-party costs as the Company may prescribe. If a New Warrant is requested as a result of a mutilation of this Warrant, then the Holder shall deliver such mutilated Warrant to the Company as a condition precedent to the Company's obligation to issue the New Warrant.

8. Reservation of Warrant Shares. The Company covenants that it will at all times reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved Common Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of this Warrant as herein provided, the number of Warrant Shares which are then issuable and deliverable upon the exercise of this entire Warrant, free from preemptive rights or any other contingent purchase rights of persons other than the Holder (taking into account the adjustments and restrictions of Section 9). The Company covenants that all Warrant Shares so issuable and deliverable shall, upon issuance and the payment of the applicable Exercise Price in accordance with the terms hereof, be duly and validly authorized, issued and fully paid and nonassessable. The Company will take all such action as may be necessary to assure that such shares of Common Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any securities exchange or automated quotation system upon which the Common Shares may be listed.

9. Certain Adjustments. The Exercise Price and number of Warrant Shares issuable upon exercise of this Warrant are subject to adjustment from time to time as set forth in this Section 9.

(a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding, (i) pays a stock dividend on its Common Stock or otherwise makes a distribution on any class of capital stock that is payable in shares of Common Stock, (ii) subdivides its outstanding shares of Common Stock into a larger number of shares, or (iii) combines its outstanding shares of Common Stock into a smaller number of shares, then in each such case the Exercise Price shall be multiplied by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately before such event and the denominator of which shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to clause (i) of this paragraph shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, and any adjustment pursuant to clause (ii) or (iii) of this paragraph shall become effective immediately after the effective date of such subdivision or combination.

(b) Fundamental Transactions. If, at any time while this Warrant is outstanding (i) the Company effects any merger or consolidation of the Company with or into another Person, in which the Company is not the survivor, (ii) the Company effects any sale of all or substantially all of its assets or a majority of its Common Stock is acquired by a third party, in each case, in one or a series of related transactions, (iii) any tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which all or substantially all of the holders of Common Stock are permitted to tender or exchange their shares for other securities, cash or property, or (iv) the Company effects any reclassification of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as a result of a subdivision or combination of shares of Common Stock covered by Section 9(a) above) (in any such case, a "**Fundamental Transaction**"), then the Holder shall have the right thereafter to receive, upon exercise of this Warrant, the same amount and kind of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of the number of Warrant Shares then issuable upon exercise in full of this Warrant without regard to any limitations on exercise contained herein (the "**Alternate Consideration**"). The provisions of this paragraph (b) shall similarly apply to subsequent transactions analogous to a Fundamental Transaction.

(c) Number of Warrant Shares. Simultaneously with any adjustment to the Exercise Price pursuant to paragraph (a) of this Section 9, the number of Warrant Shares that may be purchased upon exercise of this Warrant shall be increased or decreased proportionately, so that after such adjustment the aggregate Exercise Price payable hereunder for the increased or decreased number of Warrant Shares shall be the same as the aggregate Exercise Price in effect immediately prior to such adjustment.

(d) Calculations. All calculations under this Section 9 shall be made to the nearest cent or the nearest 1/100th of a share, as applicable. The number of shares of Common Stock outstanding at any given time shall not include shares owned or held by or for the account of the Company, and the sale or issuance of any such shares shall be considered an issue or sale of Common Stock.

(e) Notice of Adjustments. Upon the occurrence of each adjustment pursuant to this Section 9, the Company at its expense will, at the written request of the Holder, promptly compute such adjustment, in good faith, in accordance with the terms of this Warrant and prepare a certificate setting forth such adjustment, including a statement of the adjusted Exercise Price and adjusted number or type of Warrant Shares or other securities issuable upon exercise of this Warrant (as applicable), describing the transactions giving rise to such adjustments and showing in detail the facts upon which such adjustment is based. Upon written request, the Company will promptly deliver a copy of each such certificate to the Holder and to the Company's transfer agent.

(f) Notice of Corporate Events. If, while this Warrant is outstanding, the Company (i) declares a dividend or any other distribution of cash, securities or other property in respect of its Common Stock, including, without limitation, any granting of rights or warrants to subscribe for or purchase any capital stock of the Company, (ii) authorizes or approves, enters into any agreement contemplating or solicits stockholder approval for any Fundamental Transaction or (iii) authorizes the voluntary dissolution, liquidation or winding up of the affairs of the Company, then, except if such notice and the contents thereof shall be deemed to constitute material non-public information, the Company shall deliver to the Holder a notice describing the material terms and conditions of such transaction at least ten (10) Trading Days prior to the applicable record or effective date on which a Person would need to hold Common Stock in order to participate in or vote with respect to such transaction, and the Company will take all steps reasonably necessary in order to insure that the Holder is given the practical opportunity to exercise this Warrant prior to such time so as to participate in or vote with respect to such transaction; *provided, however*, that the failure to deliver such notice or any defect therein shall not affect the validity of the corporate action required to be described in such notice.

10. Payment of Exercise Price. The Holder shall pay the Exercise Price in immediately available funds; *provided, however*, the Holder may, in its sole discretion, satisfy its obligation to pay the Exercise Price through a "cashless exercise", in which event the Company shall issue to the Holder the number of Warrant Shares determined as follows:

$$X = Y [(A-B)/A]$$

where:

X = the number of Warrant Shares to be issued to the Holder.

Y = the total number of Warrant Shares with respect to which this Warrant is being exercised.

A = the average of the Closing Sale Prices of the shares of Common Stock (as reported by Bloomberg Financial Markets) for the five Trading Days ending on the date immediately preceding the Exercise Date.

B = the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

For purposes of this Warrant, "**Closing Sale Price**" means, for any security as of any date, the last trade price for such security on the principal securities exchange or trading market for such security, as reported by Bloomberg Financial Markets, or, if such exchange or trading market begins to operate on an extended hours basis and does not designate the last trade price, then the last trade price of such security prior to 4:00:00 p.m., New York Time, as reported by Bloomberg Financial Markets, or if the foregoing do not apply, the last trade price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg Financial Markets, or, if no last trade price is reported for such security by Bloomberg Financial Markets, the Closing Sale Price of such security on such date shall be the fair market value as mutually determined by the Company in its reasonable discretion.

For purposes of Rule 144 promulgated under the Securities Act, it is intended, understood and acknowledged that the Warrant Shares issued in a cashless exercise transaction shall be deemed to have been acquired by the Holder, and the holding period for the Warrant Shares shall be deemed to have commenced, on the date this Warrant was originally issued pursuant to the Consulting Agreement (provided that the Commission continues to take the position that such treatment is proper at the time of such exercise).

11. No Fractional Shares. No fractional Warrant Shares will be issued in connection with any exercise of this Warrant. In lieu of any fractional shares which would otherwise be issuable, the number of Warrant Shares to be issued shall be rounded up to the next whole number.

12. Notices. Any and all notices or other communications or deliveries hereunder (including, without limitation, any Exercise Notice) shall be in writing and shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via email prior to 5:00 p.m. (prevailing Pacific time) on a Trading Day, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via email on a day that is not a Trading Day or later than 5:00 p.m. (prevailing Pacific time) on any Trading Day, (iii) the Trading Day following the date of mailing, if sent by nationally recognized overnight courier service specifying next business day delivery, or (iv) upon actual receipt by the party to whom such notice is required to be given, if by hand delivery. The address and email of a party for such notices or communications shall be as set forth below, unless changed by either such party by prior written notice to the other party in accordance with this Section 12:

If to Company: Aqua Metals, Inc.
5370 Kietzke Lane, Suite 201
Reno, NV 89511
Attn: Judd Merrill, CFO
Email: judd.merrill@aquametals.com

If to Holder: Network 1 Financial Securities, Inc.
2 Bridge Avenue, Suite 241
Red Bank, NJ 07701
Attn: _____
Email: _____

13. Warrant Agent. The Company shall serve as warrant agent under this Warrant. Upon thirty (30) days' notice to the Holder, the Company may appoint a new warrant agent. Any corporation into which the Company or any new warrant agent may be merged or any corporation resulting from any consolidation to which the Company or any new warrant agent shall be a party or any corporation to which the Company or any new warrant agent transfers substantially all of its corporate trust or shareholders services business shall be a successor warrant agent under this Warrant without any further act. Any such successor warrant agent shall promptly cause notice of its succession as warrant agent to be mailed (by first class mail, postage prepaid) to the Holder at the Holder's last address as shown on the Warrant Register.

14. Miscellaneous.

(a) The Holder, solely in such Person's capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, amalgamation, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. Notwithstanding this Section 14(a), the Company shall provide the Holder with copies of the same notices and other information given to the shareholders of the Company, contemporaneously with the giving thereof to the shareholders.

(b) Subject to the restrictions on transfer set forth on the first page hereof, and compliance with applicable securities laws, this Warrant may be assigned by the Holder. This Warrant may not be assigned by the Company except to a successor in the event of a Fundamental Transaction. This Warrant shall be binding on and inure to the benefit of the parties hereto and their respective successors and assigns. Subject to the preceding sentence, nothing in this Warrant shall be construed to give to any Person other than the Company and the Holder any legal or equitable right, remedy or cause of action under this Warrant. This Warrant may be amended only in writing signed by the Company and the Holder, or their successors and assigns.

(c) GOVERNING LAW; VENUE; WAIVER OF JURY TRIAL. ALL QUESTIONS CONCERNING THE CONSTRUCTION, VALIDITY, ENFORCEMENT AND INTERPRETATION OF THIS WARRANT SHALL BE GOVERNED BY AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEVADA WITHOUT REGARD TO THE PRINCIPLES OF CONFLICTS OF LAW THEREOF. EACH PARTY HEREBY IRREVOCABLY SUBMITS TO THE EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS SITTING IN THE CITY OF RENO, NEVADA, FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION HERewith OR WITH ANY TRANSACTION CONTEMPLATED HEREBY OR DISCUSSED HEREIN (INCLUDING WITH RESPECT TO THE ENFORCEMENT OF ANY OF THE TRANSACTION DOCUMENTS), AND HEREBY IRREVOCABLY WAIVES, AND AGREES NOT TO ASSERT IN ANY SUIT, ACTION OR PROCEEDING, ANY CLAIM THAT IT IS NOT PERSONALLY SUBJECT TO THE JURISDICTION OF ANY SUCH COURT, THAT SUCH SUIT, ACTION OR PROCEEDING IS IMPROPER. EACH PARTY HEREBY IRREVOCABLY WAIVES PERSONAL SERVICE OF PROCESS AND CONSENTS TO PROCESS BEING SERVED IN ANY SUCH SUIT, ACTION OR PROCEEDING BY MAILING A COPY THEREOF VIA REGISTERED OR CERTIFIED MAIL OR OVERNIGHT DELIVERY (WITH EVIDENCE OF DELIVERY) TO SUCH PARTY AT THE ADDRESS IN EFFECT FOR NOTICES TO IT UNDER THIS AGREEMENT AND AGREES THAT SUCH SERVICE SHALL CONSTITUTE GOOD AND SUFFICIENT SERVICE OF PROCESS AND NOTICE THEREOF. NOTHING CONTAINED HEREIN SHALL BE DEEMED TO LIMIT IN ANY WAY ANY RIGHT TO SERVE PROCESS IN ANY MANNER PERMITTED BY LAW. THE COMPANY HEREBY WAIVES ALL RIGHTS TO A TRIAL BY JURY.

(d) The headings herein are for convenience only, do not constitute a part of this Warrant and shall not be deemed to limit or affect any of the provisions hereof.

(e) In case any one or more of the provisions of this Warrant shall be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Warrant shall not in any way be affected or impaired thereby, and the parties will attempt in good faith to agree upon a valid and enforceable provision which shall be a commercially reasonable substitute therefor, and upon so agreeing, shall incorporate such substitute provision in this Warrant.

(f) Except as otherwise set forth herein, prior to exercise of this Warrant, the Holder hereof shall not, by reason of by being a Holder, be entitled to any rights of a stockholder with respect to the Warrant Shares.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK,
SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Company has caused this Warrant to be duly executed by its authorized officer as of the date first indicated above.

AQUA METALS, INC.,
a Delaware corporation

By: _____
Stephen Cotton,
President and Chief Executive Officer

SCHEDULE 1
FORM OF EXERCISE NOTICE

(To be executed by the Holder to exercise the right to purchase shares of Common Stock under the foregoing Warrant)

Ladies and Gentlemen:

- (1) The undersigned is the Holder of a Warrant (the "**Warrant**") issued by Aqua Metals, Inc., a Delaware corporation (the "**Company**"). Capitalized terms used herein and not otherwise defined herein have the respective meanings set forth in the Warrant.
- (2) The undersigned hereby exercises its right to purchase _____ Warrant Shares pursuant to the Warrant.
- (3) The Holder intends that payment of the Exercise Price shall be made as (check one):
- Cash Exercise
- "Cashless Exercise" under Section 10
- (4) If the Holder has elected a Cash Exercise, the Holder shall pay the sum of \$_____ in immediately available funds to the Company in accordance with the terms of the Warrant.
- (5) Pursuant to this Exercise Notice, the Company shall deliver to the Holder _____ Warrant Shares in accordance with the terms of the Warrant.

Dated: _____, _____

Name of Holder: _____

By: _____

Name: _____

Title: _____

(Signature must conform in all respects to name of Holder as specified on the face of the Warrant)

SCHEDULE 2
FORM OF ASSIGNMENT

[To be completed and signed only upon transfer of Warrant]

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto _____ (the "*Transferee*") the right represented by the within Warrant to purchase _____ shares of Common Stock of Aqua Metals, Inc. (the "*Company*") to which the within Warrant relates and appoints the Secretary of the Company as attorney to transfer said right on the books of the Company with full power of substitution in the premises. In connection therewith, the undersigned represents, warrants, covenants and agrees to and with the Company that:

(a) the offer and sale of the Warrant contemplated hereby is being made in compliance with Section 4(a)(1) of the United States Securities Act of 1933, as amended (the "*Securities Act*") or another valid exemption from the registration requirements of Section 5 of the Securities Act and in compliance with all applicable securities laws of the states of the United States;

(b) the undersigned has not offered to sell the Warrant by any form of general solicitation or general advertising, including, but not limited to, any advertisement, article, notice or other communication published in any newspaper, magazine or similar media or broadcast over television or radio, and any seminar or meeting whose attendees have been invited by any general solicitation or general advertising;

(c) the undersigned has read the Transferee's investment letter included herewith, and to its actual knowledge, the statements made therein are true and correct; and

(d) the undersigned understands that the Company may condition the transfer of the Warrant contemplated hereby upon the delivery to the Company by the undersigned or the Transferee, as the case may be, of a written opinion of counsel (which opinion shall be in form, substance and scope customary for opinions of counsel in comparable transactions) to the effect that such transfer may be made without registration under the Securities Act and under applicable securities laws of the states of the United States.

Dated: _____, __

(Signature must conform in all respects to name of holder as specified on the face of the Warrant)

Address of Transferee

In the presence of:

UNDERWRITER WARRANT AGREEMENT

THE REGISTERED HOLDER OF THIS PURCHASE WARRANT BY ITS ACCEPTANCE HEREOF, AGREES THAT IT WILL NOT SELL, TRANSFER OR ASSIGN THIS PURCHASE WARRANT EXCEPT AS HEREIN PROVIDED AND THE REGISTERED HOLDER OF THIS PURCHASE WARRANT AGREES THAT IT WILL NOT SELL, TRANSFER, ASSIGN, PLEDGE OR HYPOTHECATE THIS PURCHASE WARRANT FOR A PERIOD OF ONE HUNDRED EIGHTY DAYS FOLLOWING JULY 18, 2023 (THE “**EFFECTIVE DATE**”) TO ANYONE OTHER THAN (I) THE BENCHMARK COMPANY, LLC, OR A SELECTED DEALER IN CONNECTION WITH THE OFFERING FOR WHICH THIS PURCHASE WARRANT WAS ISSUED TO THE UNDERWRITER AS CONSIDERATION (THE “**OFFERING**”), OR (II) THE OFFICERS OR PARTNERS, REGISTERED PERSONS OR AFFILIATES OF THE BENCHMARK COMPANY, LLC.

THIS PURCHASE WARRANT IS NOT EXERCISABLE PRIOR TO JANUARY 18, 2024. VOID AFTER 5:00 P.M., EASTERN TIME, JULY 18, 2028.

COMMON STOCK PURCHASE WARRANT

For the Purchase of [●] Shares of Common Stock of
Aqua Metals, Inc.

1. Purchase Warrant. THIS CERTIFIES THAT, in consideration of funds duly paid by or on behalf of The Benchmark Company, LLC (“**Holder**”), as registered owner of this Purchase Warrant, to Aqua Metals, Inc. a Delaware corporation (the “**Company**”), Holder is entitled, at any time or from time to time beginning January 18, 2024 (the “**Commencement Date**”), and at or before 5:00 p.m., Eastern time, July 18, 2028 (the “**Expiration Date**”), but not thereafter, to subscribe for, purchase and receive, in whole or in part, up to [●] shares (the “**Shares**”) of common stock of the Company, par value \$0.001 per share (the “**Common Stock**”), subject to adjustment as provided in Section 6 hereof. If the Expiration Date is a day on which banking institutions are authorized by law to close, then this Purchase Warrant may be exercised on the next succeeding day which is not such a day in accordance with the terms herein. During the period ending on the Expiration Date, the Company agrees not to take any action that would terminate this Purchase Warrant. This Purchase Warrant is initially exercisable at \$1.375 per Share; provided, however, that upon the occurrence of any of the events specified in Section 6 hereof, the rights granted by this Purchase Warrant, including the exercise price per Share and the number of Shares to be received upon such exercise, shall be adjusted as therein specified. The term “**Exercise Price**” shall mean the initial exercise price or the adjusted exercise price, depending on the context.

2. Exercise.

2.1 Exercise Form. In order to exercise this Purchase Warrant, the exercise form attached hereto must be duly executed and completed and delivered to the Company, together with this Purchase Warrant and payment of the Exercise Price for the Shares being purchased payable in cash by wire transfer of immediately available funds to an account designated by the Company or by certified check or official bank check. If the subscription rights represented hereby shall not be exercised at or before 5:00 p.m., Eastern time, on the Expiration Date, this Purchase Warrant shall become and be void without further force or effect, and all rights represented hereby shall cease and expire. Each exercise hereof shall be irrevocable. Delivery of the Shares shall be made within two (2) business days of the date of exercise of this Purchase Warrant.

2.2 Cashless Exercise. In lieu of exercising this Purchase Warrant by payment of cash or check payable to the order of the Company pursuant to Section 2.1 above, Holder may elect to receive the number of Shares equal to the value of this Purchase Warrant (or the portion thereof being exercised), by surrender of this Purchase Warrant to the Company, together with the exercise form attached hereto, in which event the Company will issue to Holder Shares in accordance with the following formula:

$$X = \frac{Y(A-B)}{A}$$

Where,

- X = The number of Shares to be issued to Holder;
- Y = The number of Shares for which the Purchase Warrant is being exercised if such exercise were by means of a cash exercise rather than a cashless exercise;
- A = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable exercise form if such exercise form is (1) both executed and delivered pursuant to Section 2.2 hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2.2 hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b)(68) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Exercise Form or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Exercise Form if such Exercise Form is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2.2 hereof, which Bid Price shall be shown on supporting documents provided by the Holder to the Company within two Trading Days of delivery of the exercise form, or (iii) the VWAP on the date of the applicable exercise form if the date of such exercise form is a Trading Day and such exercise form is both executed and delivered pursuant to Section 2.2 hereof after the close of "regular trading hours" on such Trading Day; and
- B = The Exercise Price.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date), or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Trading Day” means a day on which the New York Stock Exchange is open for trading.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

3. Transfer.

3.1 General Restrictions. The registered Holder of this Purchase Warrant agrees by his, her or its acceptance hereof, that such Holder will not: (a) sell, transfer, assign, pledge or hypothecate this Purchase Warrant for a period of one hundred eighty (180) days following the Effective Date to anyone other than: (i) The Benchmark Company, LLC (“**Benchmark**”) or an underwriter or a selected dealer participating in the Offering, or (ii) the officers or partners, registered persons or affiliates of Benchmark or of any such underwriter or selected dealer, in each case in accordance with FINRA Conduct Rule 5110(e), and (b) cause this Purchase Warrant or the securities issuable hereunder to be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of this Purchase Warrant or the securities hereunder, except as provided for in FINRA Rule 5110(e)(2). After 180 days after the Effective Date, transfers to others may be made subject to compliance with or exemptions from applicable securities laws. In order to make any permitted assignment, the Holder must deliver to the Company the assignment form attached hereto duly executed and completed, together with the Purchase Warrant and payment of all transfer taxes, if any, payable in connection therewith. The Company shall within five (5) business days transfer this Purchase Warrant on the books of the Company and shall execute and deliver a new Purchase Warrant or Purchase Warrants of like tenor to the appropriate assignee(s) expressly evidencing the right to purchase the aggregate number of Shares purchasable hereunder or such portion of such number as shall be contemplated by any such assignment.

3.2 Restrictions Imposed by the Act. The securities evidenced by this Purchase Warrant shall not be transferred unless and until: (i) if required by applicable law, the Company has received the opinion of counsel for the Company that the securities may be transferred pursuant to an exemption from registration under the Act and applicable state securities laws, or (ii) a registration statement or a post-effective amendment to the Registration Statement relating to the offer and sale of such securities has been filed by the Company and declared effective by the U.S. Securities and Exchange Commission (the "Commission") and compliance with applicable state securities law has been established.

4. Reserved.

5. New Purchase Warrants to be Issued.

5.1 Partial Exercise or Transfer. This Purchase Warrant may be exercised or assigned in whole or in part. In the event of the exercise or assignment hereof in part only, upon surrender of this Purchase Warrant for cancellation, together with the duly executed exercise or assignment form, the Company shall cause to be delivered to the Holder without charge a new Purchase Warrant of like tenor to this Purchase Warrant in the name of the Holder evidencing the right of the Holder to purchase the number of Shares purchasable hereunder as to which this Purchase Warrant has not been exercised or assigned.

5.2 Lost Certificate. Upon receipt by the Company of evidence satisfactory to it of the loss, theft, destruction or mutilation of this Purchase Warrant and of reasonably satisfactory indemnification or the posting of a bond, determined in the sole discretion of the Company, the Company shall execute and deliver a new Purchase Warrant of like tenor and date. Any such new Purchase Warrant executed and delivered as a result of such loss, theft, mutilation or destruction shall constitute a substitute contractual obligation on the part of the Company.

6. Adjustments.

6.1 Adjustments to Exercise Price and Number of Securities. The Exercise Price and the number of Shares underlying the Purchase Warrant shall be subject to adjustment from time to time as hereinafter set forth:

6.1.1 Share Dividends; Split Ups. If, after the date hereof, and subject to the provisions of Section 6.3 below, the number of outstanding Shares is increased by a stock dividend payable in Shares or by a split up of Shares or other similar event, then, on the effective day thereof, the number of Shares purchasable hereunder shall be increased in proportion to such increase in outstanding Shares, and the Exercise Price shall be proportionately decreased.

6.1.2 Aggregation of Shares. If, after the date hereof, and subject to the provisions of Section 6.3 below, the number of outstanding Shares is decreased by a consolidation, combination or reclassification of Shares or other similar event, then, on the effective date thereof, the number of Shares purchasable hereunder shall be decreased in proportion to such decrease in outstanding Shares, and the Exercise Price shall be proportionately increased.

6.1.3 Replacement of Securities upon Reorganization, etc. In case of any reclassification or reorganization of the outstanding Shares other than a change covered by Section 6.1.1 or 6.1.2 hereof or that solely affects the par value of such Shares, or in the case of any share reconstruction or amalgamation or consolidation or merger of the Company with or into another corporation (other than a consolidation or share reconstruction or amalgamation or merger in which the Company is the continuing corporation and that does not result in any reclassification or reorganization of the outstanding Shares), or in the case of any sale or conveyance to another corporation or entity of the property of the Company as an entirety or substantially as an entirety in connection with which the Company is dissolved, the Holder of this Purchase Warrant shall have the right thereafter (until the expiration of the right of exercise of this Purchase Warrant) to receive upon the exercise hereof, for the same aggregate Exercise Price payable hereunder immediately prior to such event, the kind and amount of shares of stock or other securities or property (including cash) receivable upon such reclassification, reorganization, share reconstruction or amalgamation, or consolidation, or upon a dissolution following any such sale or transfer, by a Holder of the number of Shares of the Company obtainable upon exercise of this Purchase Warrant immediately prior to such event; and if any reclassification also results in a change in Shares covered by Section 6.1.1 or 6.1.2, then such adjustment shall be made pursuant to Sections 6.1.1, 6.1.2 and this Section 6.1.3. The provisions of this Section 6.1.3 shall similarly apply to successive reclassifications, reorganizations, share reconstructions or amalgamations, or consolidations, sales or other transfers.

6.1.4 Changes in Form of Purchase Warrant. This form of Purchase Warrant need not be changed because of any change pursuant to this Section 6.1, and Purchase Warrants issued after such change may state the same Exercise Price and the same number of Shares as are stated in the Purchase Warrants initially issued pursuant to this Agreement. The acceptance by any Holder of the issuance of new Purchase Warrants reflecting a required or permissive change shall not be deemed to waive any rights to an adjustment occurring after the Commencement Date or the computation thereof.

6.2 Substitute Purchase Warrant. In case of any consolidation of the Company with, or share reconstruction or amalgamation or merger of the Company with or into, another corporation (other than a consolidation or share reconstruction or amalgamation or merger which does not result in any reclassification or change of the outstanding Shares), the corporation formed by such consolidation or share reconstruction or amalgamation shall execute and deliver to the Holder a supplemental Purchase Warrant providing that the holder of each Purchase Warrant then outstanding or to be outstanding shall have the right thereafter (until the stated expiration of such Purchase Warrant) to receive, upon exercise of such Purchase Warrant, the kind and amount of shares of stock and other securities and property receivable upon such consolidation or share reconstruction or amalgamation, by a holder of the number of Shares of the Company for which such Purchase Warrant might have been exercised immediately prior to such consolidation, share reconstruction or amalgamation or merger, sale or transfer. Such supplemental Purchase Warrant shall provide for adjustments which shall be identical to the adjustments provided for in this Section 6. The above provision of this Section shall similarly apply to successive consolidations or share reconstructions or amalgamations or mergers.

6.3 Elimination of Fractional Interests. The Company shall not be required to issue certificates representing fractions of Shares upon the exercise of the Purchase Warrant, nor shall it be required to issue scrip or pay cash in lieu of any fractional interests, it being the intent of the parties that all fractional interests shall be eliminated by rounding any fraction up or down, as the case may be, to the nearest whole number of Shares or other securities, properties or rights.

7. Reservation. The Company shall at all times reserve and keep available out of its authorized Shares, solely for the purpose of issuance upon exercise of the Purchase Warrants, such number of Shares or other securities, properties or rights as shall be issuable upon the exercise thereof. The Company covenants and agrees that, upon exercise of the Purchase Warrants and payment of the Exercise Price therefor, in accordance with the terms hereby, all Shares and other securities issuable upon such exercise shall be duly and validly issued, fully paid and non- assessable and not subject to preemptive rights of any shareholder.

8. Certain Notice Requirements.

8.1 Holder's Right to Receive Notice. Nothing herein shall be construed as conferring upon the Holders the right to vote or consent or to receive notice as a shareholder for the election of directors or any other matter, or as having any rights whatsoever as a shareholder of the Company. If, however, at any time prior to the expiration of the Purchase Warrants and their exercise, any of the events described in Section 8.2 shall occur, then, in one or more of said events, the Company shall deliver to each Holder a copy of each notice relating to such events given to the other shareholders of the Company at the same time and in the same manner that such notice is given to the shareholders.

8.2 Events Requiring Notice. The Company shall be required to give the notice described in this Section 8 upon one or more of the following events: (i) if the Company shall take a record of the holders of its Shares for the purpose of entitling them to receive a dividend or distribution payable otherwise than in cash, or a cash dividend or distribution payable otherwise than out of retained earnings, as indicated by the accounting treatment of such dividend or distribution on the books of the Company, or (ii) the Company shall offer to all the holders of its Shares any additional shares of capital stock of the Company or securities convertible into or exchangeable for shares of capital stock of the Company, or any option, right or warrant to subscribe therefor.

8.3 Notice of Change in Exercise Price. The Company shall, promptly after an event requiring a change in the Exercise Price pursuant to Section 6 hereof, send notice to the Holders of such event and change ("**Price Notice**"). The Price Notice shall describe the event causing the change and the method of calculating same.

8.4 Transmittal of Notices. All notices, requests, consents and other communications under this Purchase Warrant shall be in writing and shall be deemed to have been duly made when hand delivered, or mailed by express mail or private courier service: (i) if to the registered Holder of the Purchase Warrant, to the address of such Holder as shown on the books of the Company, or (ii) if to the Company, to following address or to such other address as the Company may designate by notice to the Holders:

If to the Holder:

The Benchmark Company, LLC
150 E. 58th Street, 17th Floor
New York, NY 10155
Attention: President

with a copy to (*which shall not constitute notice*):
Golenbock Eiseman Assor Bell & Peskoe, LLP
711 Third Avenue – 17th Floor
New York, New York 10017

Attention: Andrew D. Hudders
Email: ahudders@golenbock.com

If to the Company:

Aqua Metals, Inc.
5370 Kietzke Lane, Suite 201
Reno, Nevada 89511

Attention: Judd Merrill, Chief Financial Officer
Email: judd.merrill@acquametals.com

With copies to (*which shall not constitute notice*):

Greenberg Traurig, LLP

18565 Jamboree Road, Suite 500

Irvine, California 92612

Attention: Daniel K. Donahue, Esq.
Email: donahued@gtlaw.com

9. Miscellaneous.

9.1 Amendments. The Company and Benchmark may from time to time supplement or amend this Purchase Warrant without the approval of any of the Holders in order to cure any ambiguity, to correct or supplement any provision contained herein that may be defective or inconsistent with any other provisions herein, or to make any other provisions in regard to matters or questions arising hereunder that the Company and Benchmark may deem necessary or desirable and that the Company and Benchmark deem shall not adversely affect the interest of the Holders. All other modifications or amendments shall require the written consent of and be signed by (i) the Company and (ii) the Holder(s) of Purchase Warrants then-exercisable for at least a majority of the Shares then-exercisable pursuant to all then-outstanding Purchase Warrants.

9.2 Headings. The headings contained herein are for the sole purpose of convenience of reference, and shall not in any way limit or affect the meaning or interpretation of any of the terms or provisions of this Purchase Warrant.

9.3. Entire Agreement. This Purchase Warrant (together with the other agreements and documents being delivered pursuant to or in connection with this Purchase Warrant) constitutes the entire agreement of the parties hereto with respect to the subject matter hereof, and supersedes all prior agreements and understandings of the parties, oral and written, with respect to the subject matter hereof.

9.4 Binding Effect. This Purchase Warrant shall inure solely to the benefit of and shall be binding upon, the Holder and the Company and their permitted assignees, respective successors, legal representative and assigns, and no other person shall have or be construed to have any legal or equitable right, remedy or claim under or in respect of or by virtue of this Purchase Warrant or any provisions herein contained.

9.5 Governing Law; Submission to Jurisdiction; Trial by Jury. This Purchase Warrant shall be governed by and construed and enforced in accordance with the laws of the State of New York, without giving effect to conflict of laws principles thereof. The Company hereby agrees that any action, proceeding or claim against it arising out of, or relating in any way to this Purchase Warrant shall be brought and enforced in the courts located in New York, New York, or in the United States District Court located in New York, New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum. Any process or summons to be served upon the Company may be served by transmitting a copy thereof by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address set forth in Section 8 hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the Company in any action, proceeding or claim. The Company and the Holder agree that the prevailing party(ies) in any such action shall be entitled to recover from the other party(ies) all of its reasonable attorneys' fees and expenses relating to such action or proceeding and/or incurred in connection with the preparation therefor. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and the Holder hereby irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

9.6 Waiver, etc. The failure of the Company or the Holder to at any time enforce any of the provisions of this Purchase Warrant shall not be deemed or construed to be a waiver of any such provision, nor to in any way affect the validity of this Purchase Warrant or any provision hereof or the right of the Company or any Holder to thereafter enforce each and every provision of this Purchase Warrant. No waiver of any breach, non-compliance or non-fulfillment of any of the provisions of this Purchase Warrant shall be effective unless set forth in a written instrument executed by the party or parties against whom or which enforcement of such waiver is sought; and no waiver of any such breach, non-compliance or non-fulfillment shall be construed or deemed to be a waiver of any other or subsequent breach, non-compliance or non-fulfillment.

9.7 Exchange Agreement. As a condition of the Holder's receipt and acceptance of this Purchase Warrant, Holder agrees that, at any time prior to the complete exercise of this Purchase Warrant by Holder, if the Company and Benchmark enter into an agreement ("**Exchange Agreement**") pursuant to which they agree that all outstanding Purchase Warrants will be exchanged for securities or cash or a combination of both, then Holder shall agree to such exchange and become a party to the Exchange Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Purchase Warrant to be signed by its duly authorized officer as of July 18, 2023.

Aqua Metals, Inc.

By: _____
Name:
Title:

Date: _____, 20____

The undersigned hereby elects irrevocably to exercise the Purchase Warrant for _____ shares of common stock, par value \$0.001 per share (the “**Shares**”), of Aqua Metals, Inc., a Delaware corporation (the “**Company**”), and hereby makes payment of \$ _____ (at the rate of \$ _____ per Share) in payment of the Exercise Price pursuant thereto. Please issue the Shares as to which this Purchase Warrant is exercised in accordance with the instructions given below and, if applicable, a new Purchase Warrant representing the number of Shares for which this Purchase Warrant has not been exercised.

or

The undersigned hereby elects irrevocably to convert its right to purchase _____ Shares of the Company under the Purchase Warrant for _____ Shares, as determined in accordance with the following formula, as more fully set forth in the Purchase Warrant to which this form is attached:

$$X = \frac{Y(A-B)}{A}$$

Where,

- X = The number of Shares to be issued to Holder;
- Y = The number of Shares for which the Purchase Warrant is being exercised;
- A = The fair market value of one Share which is equal to \$ _____; and
- B = The Exercise Price which is equal to \$ _____ per share

The undersigned agrees and acknowledges that the calculation set forth above is subject to confirmation by the Company and any disagreement with respect to the calculation shall be resolved by the Company in its sole discretion.

Please issue the Shares, within two (2) business days of the date of exercise as to which this Purchase Warrant is exercised in accordance with the instructions given below and, if applicable, a new Purchase Warrant representing the number of Shares for which this Purchase Warrant has not been converted.

Signature _____

Signature Guaranteed _____

INSTRUCTIONS FOR REGISTRATION OF SECURITIES

Name: _____
(Print in Block Letters)

Address: _____

NOTICE: The signature to this form must correspond with the name as written upon the face of the Purchase Warrant without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank, other than a savings bank, or by a trust company or by a firm having membership on a registered national securities exchange.

[Form to be used to assign Purchase Warrant]

ASSIGNMENT

(To be executed by the registered Holder to effect a transfer of the within Purchase Warrant):

FOR VALUE RECEIVED, _____ does hereby sell, assign and transfer unto the right to purchase shares of Common Stock, par value \$0.001 per share, of Aqua Metals, Inc., a Delaware corporation (the "Company"), evidenced by the Purchase Warrant and does hereby authorize the Company to transfer such right on the books of the Company.

Dated: _____, 2_

Signature _____

Signature Guaranteed _____

NOTICE: The signature to this form must correspond with the name as written upon the face of the within Purchase Warrant without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank, other than a savings bank, or by a trust company or by a firm having membership on a registered national securities exchange.

LOAN AGREEMENT

THIS LOAN AGREEMENT (this "Agreement") is entered into to be effective as of January 27, 2023, by and between **SUMMIT INVESTMENT SERVICES, LLC, a Nevada limited liability company** ("Lender") and **AQUA METALS RENO, INC., a Delaware corporation** ("Borrower").

RECITALS

Borrower has requested that Lender extend credit to Borrower as described below, and Lender has agreed to provide such credit to Borrower on the terms and conditions contained herein.

NOW, THEREFORE, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Lender and Borrower hereby agree as follows:

ARTICLE I
CREDIT TERMS**SECTION 1.1. TERM LOAN.**

(a) **Generally.** Subject to the terms and conditions of this Agreement, Lender hereby agrees to make a loan to Borrower in the principal amount of Three Million and 00/100ths Dollars (\$3,000,000.00) ("Term Loan"), which shall be secured by certain real property located in Storey County, Nevada, more particularly described in Exhibit "A" attached hereto and incorporated herein by this reference (referred to herein as the "Property"). Borrower's obligation to repay the Term Loan shall be evidenced by that certain Promissory Note dated of even date herewith ("Note"), all terms of which are incorporated herein by this reference.

(b) **Repayment.** The principal amount of the Term Loan and interest accrued thereon shall be repaid in accordance with the provisions of the Note.

(c) **Prepayment.** Subject to Borrower's payment to Lender of minimum guaranteed interest in the amount of Two Hundred Thirteen Thousand Seven Hundred Fifty and No/100ths Dollars (\$213,750) ("Guaranteed Minimum Interest"), Borrower may prepay principal on the Note without fee. To the extent applicable, Borrower hereby expressly (i) waives any right it may have to prepay this Note in whole or in part, without fee or payment of Guaranteed Minimum Interest charge, upon acceleration of the Maturity Date; and (ii) agrees that if a prepayment of any or all of this Note is made, following any acceleration of the Maturity Date by Lender on account of any transfer or disposition prohibited or restricted herein or by the Loan Documents (defined below), Borrower shall be obligated to pay, concurrently therewith, the Guaranteed Minimum Interest.

(d) **Loan Documents.** The Note shall be secured by, among other things, a deed of trust ("Deed of Trust") encumbering the Property. This Agreement, the Note, the Deed of Trust, Guarantees, Security Agreement, UCC Financing Statement, Assignment of Leases and Rents, and any and all other documents now or hereafter executed by Borrower and any other person or party in connection with or to evidence or secure payment of the Loan, as the same may be amended, restated, modified or supplemented from time to time, are collectively referred to herein as the "Loan Documents." As used herein, and in the Loan Documents, the term "Loan" shall mean the principal sum of the Loan, all interest thereon, and all sums due, owing and payable to Lender under the Loan Documents. As used herein and in the other Loan Documents, the term "material adverse effect" shall mean an event that could reasonably be expected to have a material adverse effect on the financial condition or business of Borrower and/or Borrower's ability to repay the Loan.

SECTION 1.2. INTEREST/FEES.

(a) Interest. The outstanding principal balance of the Note shall bear interest at the rate, and on the terms and conditions, set forth in the Note. Interest shall begin to accrue on amounts disbursed at the time Lender advances any portion of the Loan.

(b) Computation and Payment. Interest under the Note shall be computed on the basis of a 360-day year, actual days elapsed. Interest shall be payable at the times and place set forth in the Note.

SECTION 1.3. COLLATERAL.

As security for all indebtedness and other obligations of Borrower to Lender, Borrower shall grant to Lender a first priority lien on the Property in the full amount of the loan.

The foregoing shall be evidenced by and subject to the terms of such security agreements, financing statements, deeds or mortgages, and other documents as Lender shall reasonably require, all in form and substance satisfactory to Lender. Borrower shall pay to Lender immediately upon demand the full amount of all charges, costs and expenses (to include fees paid to third parties and all allocated costs of Lender personnel), expended or incurred by Lender in connection with any of the foregoing security, including without limitation, filing and recording fees and costs of appraisals, audits and title insurance.

ARTICLE II
REPRESENTATIONS AND WARRANTIES

Borrower makes the following representations and warranties to Lender, which representations and warranties shall survive the execution of this Agreement and shall continue in full force and effect until the full and final payment, and satisfaction and discharge, of all obligations of Borrower to Lender subject to this Agreement.

SECTION 2.1. LEGAL STATUS. If Borrower or any signatory who signs on its behalf is a corporation, limited liability company, partnership, or trust, that it is duly organized and validly existing and in good standing under the laws of the state of its incorporation or organization and duly qualified to do business in the State of Nevada (if required), and is qualified or licensed to do business (and is in good standing as a foreign limited liability company, if applicable) in all other jurisdictions in which such qualification or licensing is required or in which the failure to so qualify or to be so licensed could have a material adverse effect on Borrower.

SECTION 2.2. AUTHORIZATION AND VALIDITY. This Agreement and each Loan Document required hereby or at any time hereafter delivered to Lender in connection herewith have been duly authorized, and upon their execution and delivery in accordance with the provisions hereof will constitute legal, valid and binding agreements and obligations of Borrower or the party which executes the same, enforceable in accordance with their respective terms.

SECTION 2.3 COMMERCIAL LOAN. Borrower hereby acknowledges and agrees that Lender is extending the Term Loan for commercial purposes as an investment.

SECTION 2.4. NO VIOLATION. The execution, delivery and performance by Borrower of each of the Loan Documents do not violate any provision of any law or regulation, nor contravene any provision of any articles of organization, charter, operating agreement, or similar organizational and operational documents applicable to Borrower, nor result in any breach of or default under any contract, obligation, indenture or other instrument to which Borrower is a party or by which Borrower or the Property may be bound, except to the extent that the foregoing could not reasonably result in a material adverse effect

SECTION 2.5. LITIGATION. There are no pending or, to the knowledge of Borrower, threatened actions, claims, investigations, suits, or proceedings by or before any governmental authority, arbitrator, court or administrative agency which could have a material adverse effect other than those disclosed by Borrower to Lender in writing prior to the date hereof.

SECTION 2.6. CORRECTNESS OF FINANCIAL STATEMENT. The most recent financial statements of Borrower or regarding Borrower delivered to Lender, if any, (a) are true, complete, and correct and present fairly the financial condition of Borrower in all material respects, and (b) disclose all liabilities of Borrower, whether liquidated or unliquidated, fixed or contingent. Since the dates of such financial statements there has been no material adverse change in the financial condition of Borrower, nor has Borrower mortgaged, pledged, granted a security interest in or otherwise encumbered any of its assets or properties except in favor of Lender or as otherwise permitted by Lender in writing. There are no material changes to Borrower's corporate structure or financial condition since September 30, 2022 (the date on which Lender made a separate loan to Borrower under a separate loan agreement)

SECTION 2.7. INCOME TAX RETURNS. Borrower has no knowledge of any pending assessments or adjustments of its income tax payable with respect to any year.

SECTION 2.8. NO SUBORDINATION. There is no agreement, indenture, contract or instrument to which Borrower is a party or by which Borrower may be bound that requires the subordination in right of payment of any of Borrower's obligations subject to this Agreement to any other obligation of Borrower.

SECTION 2.9. PERMITS, FRANCHISES. Borrower possesses, and will hereafter possess, all permits, land use entitlements, consents, approvals, and licenses to enable it to own the Property and put it to its current use in compliance with applicable law in all material respects.

SECTION 2.10. OTHER OBLIGATIONS. Borrower is not in default on any obligation for borrowed money, any purchase money obligation or any other material lease, commitment, contract, instrument, or obligation, except to the extent that the foregoing could not reasonably result in a material adverse effect.

SECTION 2.11. ENVIRONMENTAL MATTERS. Borrower is in compliance in all material respects with all applicable federal or state environmental, hazardous waste, health and safety statutes, and any rules or regulations adopted pursuant thereto, which govern or affect any of Borrower's operations and/or properties, including without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, the Superfund Amendments and Reauthorization Act of 1986, the Federal Resource Conservation and Recovery Act of 1976, and the Federal Toxic Substances Control Act, as any of the same may be amended, modified or supplemented from time to time, and the Property is not located in a Flood Risk Zone as defined in the Flood Disaster Protection Act of 1973. Except as disclosed in writing by Borrower to Lender prior to the date hereof, including, without limitation, as set forth in the Environmental Reports, none of the operations of Borrower is the subject of any federal or state investigation evaluating whether any remedial action involving a material expenditure is needed to respond to a release of any toxic or hazardous waste or substance into the environment. Borrower has no material contingent liability in connection with any release of any toxic or hazardous waste or substance into the environment.

SECTION 2.12 USE OF PROCEEDS. The loan proceeds shall be used to purchase the Property.

SECTION 2.13. REAL PROPERTY COLLATERAL. Except as disclosed by Borrower to Lender in writing prior to the date hereof, with respect to the Property:

(a) All taxes, governmental assessments, insurance premiums, and water, sewer and municipal charges, and rents (if any) which previously became due and owing in respect thereof have been paid prior to delinquency as of the date hereof.

(b) There are no mechanics' or similar liens or claims which have been filed for work, labor or material (and no rights are outstanding that under law could give rise to any such lien) which affect all or any interest in any such real property and which are or may be prior to or equal to the lien thereon in favor of Lender.

(c) None of the improvements which were included for purpose of determining the value of the Property lies outside of the boundaries and/or building restriction lines thereof, and no improvements on adjoining properties materially encroach upon the Property.

(d) There is no pending, or to the best of Borrower's knowledge threatened, proceeding for the total or partial condemnation of all or any portion of the Property, and the Property is in good repair and free and clear of any damage that would materially and adversely affect the value thereof as security and/or the intended use thereof.

SECTION 2.14. DOCUMENTS AND OTHER INFORMATION. All documents and other information delivered to Lender pursuant to any of the Loan Documents are and will be complete and correct in all material respects at the time of delivery to Lender.

SECTION 2.15. ESTOPPEL CERTIFICATES. Borrower shall, from time to time, within ten (10) days after request of Lender, execute and deliver an estoppel certificate, in form and content reasonably acceptable to Lender, certifying (a) the amount of the original principal amount of the Loan; (b) the rate of interest thereon; (c) the unpaid principal amount of the Loan; (d) the dates installments of interest and principal were last paid; (e) any offsets or defenses to repayment of the Loan (if any); and (t) that this Agreement, the Deed of Trust and all other Loan Documents are valid, binding and enforceable obligations of Borrower that have not been modified or, if modified, setting forth the particulars thereof.

SECTION 2.16. EMBARGOED PERSON. None of the funds or assets of Guarantor or Borrower constitute property of, or are beneficially owned directly or, to each Borrower's best knowledge, indirectly, by any Embargoed Person (which means a person identified on (A) the "List of Specially Designated Nationals and Blocked Persons" maintained by the Office of Foreign Assets Control ("*OFAC*"), U.S. Department of the Treasury's FINCEN list, and/or on any other similar list maintained by OFAC or FINCEN pursuant to any authorizing statute including, the International Emergency Economic Powers Act, 50 U.S.C. §§ 1701 et seq., The Trading with the Enemy Act, 50 U.S.C. App. 1 et seq., and any Executive Order or regulation promulgated thereunder). No Embargoed Person has any direct interest, and to each Borrower's best knowledge, as of the date hereof, based upon reasonable inquiry by such Borrower, indirect interest, of any nature whatsoever in any Borrower or any Guarantor, as applicable, with the result that the investment in any Borrower or any Guarantor, as applicable (whether directly or indirectly), is prohibited by any Legal Requirement or the Loan is in violation of any Legal Requirement. No Borrower nor any constituent member of Borrower has been previously indicted for or convicted of any Patriot Act Offense, or is currently under investigation by any Governmental Authority with respect to any alleged Patriot Act Offense.

SECTION 2.17. ANTI-MONEY LAUNDERING. None of the funds of Borrower, Member or Guarantor, as applicable, that are used to consummate this transaction or to operate the Property are derived from or are the proceeds of any unlawful activity, with the result that the investment in Borrower, Member or Guarantor, as applicable (whether directly or indirectly), is prohibited by law or the Loan is in violation of law or may cause any of the Property to be subject to forfeiture or seizure. Borrower has ascertained the identity of all persons and entities who have provided funds to capitalize Borrower and has conducted verification procedures which are sufficient to establish the identity and source of such funds.

ARTICLE III CONDITIONS AND DISBURSEMENT

SECTION 3.1. INITIAL EXTENSION OF CREDIT. The obligation of Lender to extend any credit contemplated by this Agreement is subject to the fulfillment to Lender's satisfaction of all the conditions listed in **Exhibit B** attached hereto and incorporated herein by reference.

SECTION 3.2 DISBURSEMENT. Once all conditions have been satisfied, the proceeds of the Term Loan, when qualified for disbursement, shall be disbursed by Lender to Borrower in immediately available funds. Lender has no obligation to monitor or determine Borrower's use or application of the disbursements.

ARTICLE IV
AFFIRMATIVE COVENANTS

Borrower covenants that until payment in full of all obligations of Borrower subject hereto, Borrower shall, unless Lender otherwise consents in writing:

SECTION 4.1. PUNCTUAL PAYMENTS. Punctually pay all principal, interest, fees or other liabilities due under any of the Loan Documents at the times and place and in the manner specified therein, and immediately upon demand by Lender, the amount by which the outstanding principal balance of any credit subject hereto at any time exceeds any limitation on borrowings applicable thereto.

SECTION 4.2. ACCOUNTING RECORDS. Maintain adequate books and records in accordance with generally accepted accounting principles and consistently applied practice, and permit any representative of Lender, during normal business hours upon reasonable request (or at any time during the existence of an Event of Default), to inspect, audit and examine such books and records, to make extracts thereof and copies of the same, and to inspect the properties of Borrower.

SECTION 4.3. BUSINESS CONTINUITY. Conduct its business in substantially the same manner and locations as such business is now and has previously been conducted, and Borrower shall not change its name.

SECTION 4.4. TAX RETURNS. Within a reasonable time of receipt of a request from Lender, provide to Lender, in form and detail satisfactory to Lender, within 30 days of filing or by November 15th of each year, whichever is earlier, complete copies of Borrower's federal tax returns, together with all schedules thereto, including, without limitation all K-1 statements, each of which shall be signed and certified by Borrower to be true and complete copies of such returns.

SECTION 4.5. FINANCIAL INFORMATION. Within a reasonable time of receipt of a request from Lender, provide to Lender promptly, in form and detail satisfactory to Lender, such information regarding the business affairs and financial condition of Borrower which Lender may reasonably request, including, without limitation, tax returns (and all schedules thereto), tax information regarding the Property, and financial statements of Borrower.

SECTION 4.6. COMPLIANCE. Preserve and maintain all licenses, permits, governmental approvals, rights, privileges and franchises necessary for the conduct of its business or operation of the Property; and comply with the provisions of all documents pursuant to which Borrower is organized and/or which govern Borrower's continued existence and with the requirements of all laws, rules, regulations and orders of any governmental authority applicable to Borrower, its business, and/or the Property, except to the extent that the failure to comply with the foregoing could not reasonably result in a material adverse effect.

SECTION 4.7. INSURANCE. Maintain and keep in force insurance of the types and in amounts customarily carried by persons or entities with similar assets, including but not limited to extended coverage, public liability, flood (if in a designated flood zone), property damage and workers' compensation, with all such insurance carried with companies and in amounts satisfactory to Lender, naming Lender as loss payee or additional insured, if and as Lender may require, and deliver to Lender from time to time at Lender's request schedules setting forth all insurance then in effect.

SECTION 4.8. TAXES AND OTHER LIABILITIES. Pay and discharge prior to delinquency any and all indebtedness, obligations, assessments and taxes, both real or personal, including without limitation federal and state income taxes and state and local property taxes and assessments, except (a) such as Borrower may in good faith contest or as to which a bona fide dispute may arise, and (b) for which Borrower has made provision, to Lender's satisfaction, for eventual payment thereof in the event Borrower is obligated to make such payment.

SECTION 4.9. NOTICE OF DEFAULT AND OTHER NOTICES.

(a) Notice of Default. Furnish to Lender promptly upon becoming aware of the existence of any condition or event which constitutes an Event of Default (as defined in the Loan Documents) or any event which, upon the giving of notice or lapse of time or both, may become an Event of Default, written notice specifying the nature and period of existence thereof and the action which Borrower is taking or proposes to take with respect thereto.

(b) Other Notices. Promptly notify Lender in writing of (i) any material adverse change in Borrower's financial condition, its business, or the Property; (ii) any material default under any material agreement, contract or other instrument to which Borrower is a party or by which any of its properties are bound, or any acceleration of the maturity of any indebtedness owing by Borrower; (iii) any material adverse claim against or affecting Borrower or any part of its properties; (iv) the commencement of, and any material determination in, any litigation with any third party or any proceeding before any governmental agency or unit affecting Borrower; (v) at least 30 days prior thereto, any change in Borrower's name or address as shown herein, and/or any change in Borrower's structure; and (vi) any termination or cancellation of any insurance policy which Borrower is required to maintain, or any uninsured or partially uninsured loss through liability or property damage, or through fire, theft or any other cause affecting Borrower's property in excess of an aggregate of \$250,000.00.

SECTION 4.10. ADDITIONAL THIRD-PARTY FEES. Pay any and all third-party fees incurred by Lender in connection with the credit facilities hereunder.

SECTION 4.11. LATE CHARGE. Borrower recognizes that Default in making the installment monthly payments when due hereunder will result in Lender incurring additional expense in servicing the Loan, in loss to Lender of the use of the money due and in frustration to Lender in meeting its loan commitments.. Borrower agrees that if, for any reason, any monthly installment of interest shall not be received by Lender within ten (10) days of its due date, Lender shall be entitled to damages for the detriment caused thereby. Borrower therefore agrees to pay Lender a late charge of ten percent (10%) of such installment, but not including the final payment, or the maximum amount allowed by law, whichever is less, such late charge to be immediately due and payable without notice or demand by Lender. Borrower will pay this late charge only once for each late installment payment, but not including the final payment. This Section and the amounts for which it provides shall not limit Lender's right, under this Note, the Deed of Trust, or otherwise, to compel prompt performance thereunder. Lender's failure to collect such late charges shall not constitute a waiver of Lender's right to require payment of such late charges for past or future Defaults. Any late charge shall be in addition to all other rights and remedies available to Lender upon the occurrence of a default under the Loan Documents. BORROWER ACKNOWLEDGES AND AGREES THAT IT WOULD BE EXTREMELY DIFFICULT OR IMPRACTICABLE TO FIX THE ACTUAL DAMAGES RESULTING FROM BORROWER'S FAILURE TO PAY AMOUNTS WHEN DUE AND THEREFORE, SHALL PAY SUCH LATE CHARGES NOT AS A PENALTY, BUT FOR THE PURPOSE OF DEFRAYING THE EXPENSES INCIDENT TO SERVICING THE LOAN AND HANDLING AMOUNTS PAST DUE. FURTHER, BORROWER AGREES THAT THE LATE CHARGES SET FORTH HEREIN ARE A REASONABLE ESTIMATE OF THE DAMAGES TO LENDER. THE LATE CHARGES SHALL BE PAYABLE BY BORROWER WITHOUT PREJUDICE TO THE RIGHTS OF LENDER TO COLLECT ANY OTHER AMOUNTS TO BE PAID UNDER THIS NOTE OR THE DEED OF TRUST.

SECTION 4.12 DEFAULT INTEREST. Following the occurrence and during the continuance of an Event of Default, interest on any amounts then outstanding shall be increased automatically from the date of the Event of Default until cured to thirteen percent (13%) per annum ("Default Interest"), and all outstanding amounts due, including unpaid Regular Interest shall continue to accrue interest from the date of such Event of Default at the Default Interest rate until such Event of Default is cured or waived. Borrower acknowledges and agrees that the application of Default Interest may result in the compounding of interest.

ARTICLE V
NEGATIVE COVENANTS

Borrower further covenants that so long as any liabilities (whether direct or contingent, liquidated or unliquidated) of Borrower to Lender under any of the Loan Documents remain outstanding, and until payment in full of all obligations of Borrower subject hereto, Borrower will not without Lender's prior written consent:

SECTION 5.1. USE OF FUNDS. Use any of the proceeds of any credit extended hereunder except for the purposes stated in this Agreement.

SECTION 5.2. OTHER INDEBTEDNESS. Create, incur, assume or permit to exist any indebtedness or liabilities resulting from borrowings, loans or advances, whether secured or unsecured, matured or unmatured, liquidated or unliquidated, joint or several, direct or indirect, except (a) the liabilities of Borrower to Lender, and (b) additional indebtedness or liabilities in an aggregate amount not to exceed \$250,000.00 at any time.

SECTION 5.3. GUARANTIES. Guarantee or become liable in any way as surety, endorser (other than as endorser of negotiable instruments for deposit or collection in the ordinary course of business), accommodation endorser or otherwise for, nor pledge or hypothecate any assets of Borrower as security for, any liabilities or obligations of any other person or entity, except any of the foregoing in favor of Lender.

SECTION 5.4. LOANS. Other than in the ordinary course of business, make any loans or advances to or investments in any person or entity.

SECTION 5.5. PLEDGE OF ASSETS. Mortgage, pledge, grant or permit to exist a security interest in, or lien upon, all or any portion of the Property except (a) security interests required by the Loan Documents, and (b) liens for non-delinquent taxes and taxes contested in good faith; and (c) any of the foregoing in favor of Lender.

SECTION 5.6. GOVERNMENT INTERVENTION. Permit the assertion or making of any seizure, vesting or intervention by or under authority of any governmental entity.

SECTION 5.7. MERGER, CONSOLIDATION AND TRANSFER OF ASSETS. If Borrower or any signatory who signs on its behalf is a corporation, limited liability company, partnership, or trust, Borrower shall not: (a) merge or consolidate with any other entity; (b) dissolve, enter into revoked status, or make any change in the nature of Borrower's structure; or
(c) make or permit to be made any change to Borrower's organizational documents that is likely to have a material adverse effect on Borrower's ability to own and operate its assets or perform its obligations under the Loan Documents.

ARTICLE VI
EVENTS OF DEFAULT

SECTION 6.1. The occurrence of any of the following shall constitute an "Event of Default" under this Agreement:

(a) Borrower shall fail to pay when due any principal, interest (including Minimum Guaranteed Interest), fees or other amounts payable under any of the Loan Documents, which failure continues for ten (10) days after written notice from Lender.

(b) Any financial statement or certificate furnished to Lender in connection with, or any representation or warranty made by Borrower or Guarantor under this Agreement or any other Loan Document shall prove to be knowingly incorrect, false or misleading in any material respect when furnished or made.

(c) Any default by Borrower in the performance of or compliance with any obligation, agreement or other provision contained herein or in any other Loan Document (other than those specifically described as an "Event of Default" in this Agreement), and with respect to any such default that by its nature can be cured, such default shall continue for a period of 30 days after written notice from Lender; provided that if the foregoing default requires additional time to cure and Borrower is diligently and in good faith acting to cure such default, then Borrower shall have an additional 60 days to cure such default.

(d) The neglect, failure or refusal of Borrower to keep in full force and effect any permit, license, consent, approval or insurance required hereunder or under the loan Documents.

(e) Borrower shall become insolvent, or shall suffer or consent to or apply for the appointment of a receiver, trustee, custodian or liquidator of itself or any of its property, or shall generally fail to pay its debts as they become due, or shall make a general assignment for the benefit of creditors; Borrower shall file a voluntary petition in bankruptcy, or seeking reorganization, in order to effect a plan or other arrangement with creditors or any other relief under the Bankruptcy Reform Act, Title 11 of the United States Code, as amended or recodified from time to time ("Bankruptcy Code"), or under any state or federal law granting relief to debtors, whether now or hereafter in effect; or Borrower shall file an answer admitting the jurisdiction of the court and the material allegations of any involuntary petition; or Borrower shall be adjudicated bankrupt, or an order for relief shall be entered against Borrower by any court of competent jurisdiction under the Bankruptcy Code or any other applicable state or federal law relating to bankruptcy, reorganization or other relief for debtors.

(f) The filing of a notice of judgment lien against Borrower; or the recording of any abstract of judgment against Borrower in any county in which Borrower has an interest in real property; or the service of a notice of levy and/or of a writ of attachment or execution, or other like process, against the assets of Borrower in excess of \$500,000, which is not dismissed or bonded over within 60 days; or the entry of a judgment against Borrower in excess of \$500,000, which is not dismissed or bonded over within 60 days; or any involuntary petition or proceeding pursuant to the Bankruptcy Code or any other applicable state or federal law relating to bankruptcy, reorganization or other relief for debtors is filed or commenced against Borrower, which is not dismissed within 60 days..

(g) Any change in ownership or control of Borrower or any entity or combination of entities that directly or indirectly control Borrower, which change shall be defined as the sale, transfer or conveyance of any interest in Borrower of an aggregate of forty percent (40%) or more of the total interests in Borrower.

(h) The dissolution, liquidation, or revocation of Borrower, or any of its managers or members shall take action seeking to effect the dissolution or liquidation of Borrower, or the distribution of all or substantially all of its assets.

(i) The sale, lease, transfer, hypothecation, assignment, lien, or encumbrance, whether voluntary, involuntary or by operation of law, without Lender's prior written consent, of all or any material part of or interest in the Property other than in the ordinary course of business.

(j) Any breach or default by Borrower under any other loan or credit facility now or hereinafter existing between Lender and Borrower, subject to any applicable notice requirement and opportunity to cure.

SECTION 6.2. REMEDIES. To the extent permitted by applicable law, upon the occurrence and during the continuance of any Event of Default: (a) all indebtedness of Borrower under each of the Loan Documents, any term thereof to the contrary notwithstanding, shall at Lender's option and without notice become immediately due and payable without presentment, demand, protest or notice of dishonor, all of which are hereby expressly waived by Borrower; (b) the obligation, if any, of Lender to extend any further credit under any of the Loan Documents shall immediately cease and terminate; and (c) Lender shall have all rights, powers and remedies available under each of the Loan Documents, or accorded by law, including without limitation the right to resort to any or all security for any credit subject hereto and to exercise any or all of the rights of a beneficiary or mortgagee or secured party pursuant to applicable law. All rights, powers and remedies of Lender may be exercised at any time by Lender and from time to time after the occurrence of an Event of Default, are cumulative and not exclusive, and shall be in addition to any other rights, powers or remedies provided by law or equity.

ARTICLE VII
MISCELLANEOUS

SECTION 7.1. NO WAIVER. No delay, failure or discontinuance of Lender in exercising any right, power or remedy under any of the Loan Documents shall affect or operate as a waiver of such right, power or remedy; nor shall any single or partial exercise of any such right, power or remedy preclude, waive or otherwise affect any other or further exercise thereof or the exercise of any other right, power or remedy. Any waiver, permit, consent or approval of any kind by Lender of any breach of or default under any of the Loan Documents must be in writing and shall be effective only to the extent set forth in such writing.

SECTION 7.2. NOTICES. All notices, requests and demands which any party is required or may desire to give to any other party under any provision of this Agreement must be in writing delivered to each party at the following address and email address:

BORROWER: Aqua Metals Reno, Inc.
5370 Kietzke Lane
Suite 201
Reno, NV 89511
Email: Steve.cotton@aguametals.com
Judd.merrill@aguametals.com

LENDER: Summit Investment Services, LLC
c/o Allied Loan Servicing
Post Office Box 17942
Reno, NV 89511
Email: egangloff@saifunds.com

or to such other address as any party may designate by written notice to all other parties. Each such notice, request and demand shall be deemed given or made as follows: (a) if sent by hand delivery, upon delivery; (b) if sent by mail, upon the earlier of the date of receipt or three (3) days after deposit in the U.S. mail, first class and postage prepaid; (c) if sent by nationally recognized overnight delivery service, upon the earlier of receipt or one (1) day after deposit with such service, and (d) if sent by electronic mail (email) to the addresses set forth above, upon receipt of a "read receipt" from the receiving party.

SECTION 7.3. COSTS, EXPENSES AND ATTORNEYS' FEES. Borrower shall pay to Lender promptly upon demand the full amount of all payments, advances, charges, costs and expenses, including reasonable attorneys' fees, expended or incurred by Lender in connection with (a) the negotiation and preparation of this Agreement and the other Loan Documents, Lender's continued administration hereof and thereof, and the preparation of any amendments and waivers hereto and thereto, (b) the enforcement of Lender's rights and/or the collection of any amounts which become due to Lender under any of the Loan Documents, and (c) the prosecution or defense of any action in any way related to any of the Loan Documents, including without limitation, any action for declaratory relief, whether incurred at the trial or appellate level, in an arbitration proceeding or otherwise, and including any of the foregoing incurred in connection with any bankruptcy proceeding (including without limitation, any adversary proceeding, contested matter or motion brought by Lender or any other person) relating to Borrower or any other person or entity. For all purposes of this Agreement, Lender's costs and expenses shall include, without limitation, all appraisal fees, cost engineering and inspection fees, title and escrow fees and expenses, reasonable legal fees and expenses, accounting fees, environmental consultant fees, auditor fees, recording taxes, recording fees, filing fees, UCC filing fees and/or UCC vendor fees, flood certification vendor fees, tax service vendor fees, and the cost to Lender of any title insurance premiums, title surveys, mortgage registration taxes (if applicable), release, reconveyance, satisfaction and notary fees.

SECTION 7.4. SUCCESSORS, ASSIGNMENT. This Agreement shall be binding upon and inure to the benefit of the heirs, executors, administrators, legal representatives, successors and assigns of the parties; provided however, that Borrower may not assign or transfer its interests or rights hereunder without Lender's prior written consent. Lender reserves the right to sell, assign, transfer, negotiate or grant participations in all or any part of, or any interest in, Lender's rights and benefits under each of the Loan Documents. In connection therewith, Lender may disclose all documents and information which Lender now has or may hereafter acquire relating to any credit subject hereto, Borrower, its business, any guarantor, or any collateral required hereunder.

SECTION 7.5. RIGHT TO RELEASE AND RECONVEY. To the extent permitted by applicable law, Borrower hereby acknowledges and agrees that Lender may, at any time and without waiving or prejudicing any other rights of Lender under the Loan Documents, release and reconvey any Deed of Trust for any reason whatsoever, including, without limitation, Lender's determination that its security interest under such Deed of Trust might in some way impair or alter any rights Lender would otherwise hold under the Loan Documents if it did not have any interest under said Deed of Trust.

SECTION 7.6. NO THIRD-PARTY BENEFICIARIES. This Agreement is made and entered into for the sole protection and benefit of the parties hereto and their respective permitted successors and assigns, and no other person or entity shall be a third-party beneficiary of, or have any direct or indirect cause of action or claim in connection with, this Agreement or any other of the Loan Documents to which it is not a party.

SECTION 7.7. TIME. Time is of the essence of each and every provision of this Agreement and each other of the Loan Documents.

SECTION 7.8. SUBJECT TO LAW; SEVERABILITY OF PROVISIONS. All rights, powers and remedies provided in this Agreement and the other Loan Documents may be exercised only to the extent that the exercise thereof does not violate any applicable provisions of law. If any provision of this Agreement shall be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity without invalidating the remainder of such provision or any remaining provisions of this Agreement.

SECTION 7.9. COUNTERPARTS. This Agreement may be executed in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, and all of which when taken together shall constitute one and the same Agreement.

SECTION 7.10. GOVERNING LAW. This Agreement shall be governed by and construed in accordance with the laws of the State of Nevada.

SECTION 7.11 BORROWER INFORMATION; REPORTING. Borrower authorizes Lender at any time to verify or check any information given by Borrower to Lender, check Borrower's credit references, verify employment, and obtain credit reports. Borrower agrees that Lender shall have the right at all times to disclose and report to credit reporting agencies and credit rating agencies such information pertaining to Borrower as is consistent with general lending policies and practices from time to time in effect.

SECTION 7.12 RELATIONSHIP OF PARTIES. The relationship between Borrower and Lender is, and at all times shall remain, solely that of debtor and creditor, and shall not be, or be construed to be, a joint venture, equity venture, partnership or other relationship of any nature. Borrower and Lender warrant to each other that they shall make no statement, orally or in writing, or take or omit any action which could be implied by an ordinary, reasonable, prudent third party as evidence of a joint venture, equity venture or partnership between Borrower and Lender. Lender neither undertakes nor assumes any responsibility or duty to Borrower or to any other person with respect to the Property or the transactions contemplated by the Loan Documents, except as expressly provided in the Loan Documents. Notwithstanding any other provision of the Loan Documents and without limiting the foregoing: (a) Lender is not, and shall not be construed as, a partner, joint venturer, alter ego, manager, controlling person or other business associate or participant of any kind of Borrower or its partners or members, if applicable, and Lender does not intend to ever assume such status; (b) Lender shall in no event be liable for any debts, expenses or losses incurred or sustained by Borrower; (c) Lender's activities in connection with the Loan Documents shall not be outside the scope of the activities of a lender within the meaning of NRS 41.590 and other laws of the State of Nevada, and Lender does not intend to ever assume any responsibility to any person for the quality, suitability, safety or condition of the Property; and (d) Lender shall not be deemed responsible for or a participant in any acts, omissions or decisions of Borrower or its partners or members. In no event shall Lender be liable for any of the debts, obligations or liabilities of Borrower or of its members or owners as a result of the execution and delivery of the Loan Documents; and in no event shall Lender be liable for any contributions to Borrower, and Borrower agrees to indemnify, defend and hold Lender harmless from any claim, cause of action, settlement, judgment, award or damage, including reasonable attorneys' fees and costs, arising from a breach of this warranty.

SECTION 7.13 INDEMNIFICATION. Borrower will indemnify and hold Lender harmless from any loss, liability, damages, judgments, and costs of any kind relating to or arising directly or indirectly out of (a) this Agreement or any other Loan Document, (b) any credit extended or committed by Lender to Borrower hereunder, and (c) any litigation or proceeding related to or arising out of any of the Loan Document or any such credit. This indemnity includes but is not limited to attorneys' fees. This indemnity extends to Lender, its affiliates, members, managers, directors, officers, employees, agents, successors, attorneys, and assigns. This indemnity will survive repayment of Borrower's obligations to Lender.

SECTION 7.14 COMMISSION AND BROKERAGE FEE. Borrower, at its sole cost and expense, has authorized Alpen Mortgage, Inc. as its mortgage loan broker with regard to this transaction ("Broker"). Neither Borrower nor Lender has authorized any other broker or finder to act on behalf of the other party with regard to the consummation of this loan. Borrower agrees to indemnify, defend, protect and hold harmless Lender from and against any and all demands, claims, losses, damages, liabilities, costs or expenses of any kind or character (including reasonable attorneys' fees and charges) arising out of or resulting from any agreement, arrangement or understanding alleged to have been made by Borrower or on Borrower's behalf with any other broker or finder in connection with the Loan. Lender agrees to indemnify, defend, protect and hold harmless Borrower from and against any and all demands, claims, losses, damages, liabilities, costs or expenses of any kind or character (including reasonable attorneys' fees and charges) arising out of or resulting from any agreement, arrangement or understanding alleged to have been made by Lender or on Lender's behalf with any other broker or finder in connection with the Loan. Notwithstanding anything to the contrary contained herein, this Section 7.14 shall survive the making and repayment of the Loan and the expiration or termination of this Agreement.

SECTION 7.15 VOLUNTARY AGREEMENT; ADVICE FROM INDEPENDENT COUNSEL. Borrower represents to Lender that it has received independent legal advice with regard to this transaction, or has had ample opportunity to do so, and has satisfied itself with regard to any inquiry or investigation relating to the legal and tax implications of this transactions. Borrower has not relied on any statements or advice of Lender or Lender's counsel. This Agreement was prepared and entered into out of the free will of the parties and pursuant to arm's length negotiations, and the parties believe this Agreement and the other Loan Documents to be fair. Lender has not taken advantage of Borrower by threats, intimidation, overreaching, unconscionable conduct, or otherwise, and Borrower is proceeding in this transaction voluntarily in what it perceives to be in its own best interests. Having been negotiated by the parties, this Agreement shall not be construed against any one party for drafting it or any particular provision, but shall be construed as if both parties jointly prepared this Agreement and any uncertainty or ambiguity shall not be interpreted against any one party.

SECTION 7.16 APPROVAL STANDARD; EFFECT OF APPROVAL. Except as otherwise provided herein, whenever Lender's consent or approval is required in this Agreement, such consent or approval may be given or withheld in Lender's sole and absolute discretion. Lender's approval of any matter in connection with the Loan shall be for the sole purpose of protecting Lender's security and rights. No such approval shall result in a waiver of any default of Borrower. In no event shall Lender's approval be a representation of any kind with regard to the matter being approved. No consent or approval shall be effective unless the same is expressly set forth in writing from Lender. In no event shall any other act nor any omission on the part of Lender be construed as a consent or approval or serve to later estop Lender's right to withhold its consent or approval as to a particular matter. Anything contained in this Agreement and the other Loan Documents to the contrary notwithstanding, when Lender's consent or approval is required in this Agreement or the other Loan Documents, such consent only requires the consent of Summit Investment Services, LLC, and not the consent of any other Lender.

SECTION 7.17 . SUPPLEMENTAL AGREEMENT. The provisions of this Agreement are not intended to supersede the provisions of the Deed of Trust but shall be construed as supplemental thereto. This Agreement, and all representations and warranties contained herein, shall remain in effect until all amounts due under the Loan Documents have been paid in full.

SECTION 7.18 SURVIVAL. This Agreement, and all representations, warranties and covenants contained herein, shall remain in effect until the Loan has been paid in full.

SECTION 7.19 JOINT AND SEVERAL LIABILITY. If Borrower consists of more than one person or entity, their liability shall be joint and several, and the compromise of any claim with, or the release of, any Borrower shall not constitute a compromise with, or a release of, any other Borrower.

SECTION 7.20 ENTIRE AGREEMENT; AMENDMENT. This Agreement and the other Loan Documents constitute the entire agreement between Borrower and Lender with respect to each credit subject hereto and supersede all prior negotiations, communications, discussions and correspondence concerning the subject matter hereof. This Agreement may be amended or modified only in writing signed by each party hereto.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have caused their authorized representatives to execute this Agreement to be effective as of the date first set forth above.

BORROWER:

AQUA METALS RENO, INC., a Delaware corporation

By: /s/ Stephen Cotton

Stephen Cotton

Its: President

By: /s/ Judd Merrill

Judd Merrill

Its: Chief Financial Officer

[Remainder of page intentionally left blank]

LENDER:

SUMMIT INVESTMENT SERVICES, LLC, a Nevada
limited liability company

By: /s/ Eric J. Gangloff

Eric J. Gangloff

Its: Manager

Exhibit "A"
Legal Description of the Property

The Land is described as follows:

Parcel No. 1:

Parcel 2001-1-B-3-A of Record of Survey Map No. 91079, filed in the office of the County Recorder of Storey County, State of Nevada on February 12, 2002 as File No. 91079 of Official Records, more particularly described as follows:

All that certain parcel situate within a portion of the South one-half (S 1/2) of Section Thirty Four (34), Township Twenty (20) North, Range Twenty-Two (22) East, Mount Diablo Meridian, Storey County, Nevada, being all of Parcel 2001-1-B-3 and a portion of Parcel 2001-1-B-1 as shown on Record of Survey Map No. 90743 in the Official Records of Storey County, Nevada.

Commencing at the East 1/4 comer of said Section 34;

Thence South 76°46'41" West, 2067.50 feet to the Point of Beginning; Thence from the Point of Beginning South 30°22'19" West, 220.00 feet; Thence North 59°37'41" West, 445.00 feet;

Thence North 30°22'19" East, 220.00 feet;

Thence South 59°37'41" East, 445.00 feet to the Point of Beginning.

Note: the above metes and bounds legal description was prepared by David Crook, P.L.S., 1925 E. Prater Way, Sparks, Nevada 89434 and previously appeared in Deed, recorded May 23, 2006, as Document No. 104027, of Official Records. Also set forth and described in Deed, recorded September 4, 2020, as Document No. 132420, of Official Records.

Assessor's Parcel No.: 005-041-09 (commonly known as 2955 Waltham Way)

Parcel No. 2:

Parcel 2001-1-B-2, of Record of Survey Map No. 90743, filed in the office of the County Recorder of Storey County, State of Nevada, on December 18, 2001, as File No. 90743, of Official Records, more particularly described as follows:

All that certain parcel situate within a portion of the South one-half (S 1/2) of Section Thirty-Four (34), Township Twenty (20) North, Range Twenty-Two (22) East, Mount Diablo Meridian, Storey County, Nevada, being more particularly described as follows:

Commencing at the East 1/4 comer of said Section 34;

Thence South 75°29'59" West, 1699.46 feet to the Point of Beginning;

Thence from the point of beginning, South 30°22'19¹¹ West, 446.61 feet;

Thence North 59°37'41¹¹ West, 293.00 feet;

Thence North 30°22'19¹¹ East, 446.61 feet;

Thence South 59°37'41¹¹ East, 293.00 feet to the Point of Beginning.

Note: the above metes and bounds legal description was prepared by David Crook, P.L.S., 1925 E. Prater Way, Sparks, Nevada 89434 and previously appeared in Deed, recorded May 23, 2006, as Document No. 104027, of Official Records. Also set forth and described in Deed, recorded September 4, 2020, as Document No. 132420, of Official Records.

Assessor's Parcel No.: 005-041-11 (commonly known as 2999 Waltham Way)

Exhibit "B"
Conditions for Disbursement

Borrower must satisfy the following conditions and furnish Lender with the following Loan Documents and items ("**Required Items**") prior to each Disbursement:

1. Lender shall have received and approved any and all documents required to be provided to Lender under this Agreement or the Loan Documents. All legal matters incidental to the extension of credit by Lender shall be satisfactory to Lender's counsel.
2. Lender shall have received and approved a written opinion of Borrower's counsel stating, among other things, that Borrower is duly authorized to make the Loan and that the loan documents constitute binding and enforceable obligations of Borrower.
3. Borrower shall have paid all fees, costs and expenses in connection with the transactions contemplated by this Agreement and all other Loan Documents, including, without limitation, Lender's attorney's fees, costs and the premium for Lender's title insurance policy (with endorsements required by Lender in its sole discretion).
4. Borrower shall have paid Broker Fees in the amount of \$45,000 plus \$995 Loan Processing Fee to Alpen Mortgage Inc.
5. Lender shall have received and approved evidence Lender requires of the existence, good standing, authority and capacity of Borrower to execute, deliver and perform their respective obligations to Lender under the Loan Documents, all in a form acceptable to Lender.
6. There shall have been no material adverse change, as reasonably determined by Lender, in the financial condition or business of Borrower, nor any material decline, as determined by Lender, in the market value of the Property or a substantial or material portion of the assets of Borrower since the date that Borrower provided to Lender its financial statements and other financial information.
7. Borrower shall have duly executed, acknowledged and/or sworn to as required, and delivered to Lender all Loan Documents then required by Lender, dated the date of this Agreement, each in form and content satisfactory to Lender; the Deed of Trust shall have been recorded in the official records of Storey County, Nevada (as a first deed of trust), and UCC-1 financing statements shall have been recorded and/or filed in all filing offices that Lender may require.
8. Borrower shall have delivered to Lender evidence of insurance coverage on the Property, in form, substance, amounts, covering risks and issued by companies satisfactory to and approved by Lender, and where required by Lender, with loss payable endorsements in favor of Lender, as reasonably requested by Lender, and such policies of insurance against specific hazards affecting the Property as may be required by governmental regulation or Lender, together with evidence satisfactory to Lender that all premiums therefore are paid current, that the policies are in full force and effect and that Lender is named as a Mortgagee/Loss Payee.

9. Lender shall have received an ALTA 2006 Lender's Extended Coverage Policy of Title Insurance, with such endorsements as Lender may require, issued by a company and in form and substance satisfactory to and approved by Lender, in an amount not less than \$3,000,000.00, insuring Lender's lien (subject to permitted exceptions) on the Property to be of first priority, with all costs thereof to be paid by Borrower.
10. Lender shall have received confirmation of the recordation in the appropriate recording office of the instrument creating Lender's lien in the Property, as well as confirmation of the filing in the appropriate filing office of such UCC-1s as Lender may require to perfect its security interest in any other collateral securing the Term Loan.
11. If required by Lender, evidence of all utility services to the boundaries of the Property, copies of any environmental assessments, soils analyses, surveys, or appraisals, heretofore performed with respect to Property.
12. Borrower shall have delivered to Lender, in form and content satisfactory to Lender, such other documents and certificates as Lender may reasonably request.

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

THIS AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT is entered into effective as of August 7, 2023 between AQUA METALS, INC., a Delaware corporation ("**Company**") and Stephen Cotton ("**Employee**") (collectively, the "**Parties**," and individually, a "**Party**"), and constitutes an amendment and restatement to that certain Executive Employment Agreement dated May 2, 2018, by and between the Company and Employee, as amended to date (the "**Prior Agreement**"). Effective as of the Effective Date, this Agreement hereby supersedes, replaces, amends, and restates the Prior Agreement.

RECITALS

WHEREAS, the Company and Employee entered into the Prior Agreement and now wish to continue their employment relationship on the following terms and conditions;

NOW, THEREFORE, in consideration of the mutual promises, covenants and conditions herein, the Parties agree as follows:

1. TERM. Employee acknowledges that he is not employed for a specific term but is an at-will employee who may resign at any time, with or without notice. Likewise, the Company may terminate the Employee's employment at any time, with or without notice, and with or without cause or reason.

2. POSITION, DUTIES, AND OBLIGATIONS.

2.1 General. Company hereby employs Employee in accordance with the terms of this Agreement; the Third Amended and Restated Bylaws of the Company, as further amended from time to time ("**Bylaws**"); all the policies and procedures set forth in the Company's employee handbook as in effect as of the date of this Agreement, and as it may be modified or amended in the future ("**Employee Handbook**"); and any other Company policies or procedures currently in effect or subsequently implemented.

2.2 Title and Duties. Employee shall be employed hereunder as President and Chief Executive Officer of the Company. In such position, Employee shall serve as the principal executive officer of the Company and the Company has the absolute right to assign Employee new or different job duties as deemed appropriate by the Company. Employee shall also serve as a member of the Board of Directors of the Company (the "**Board**") or as an officer or director of any affiliate or subsidiary of the Company for no additional compensation.

2.3 Work Location. Employee shall provide his services hereunder from the Company's headquarters in Reno, Nevada and shall travel to the Company's facilities in McCarran, Nevada as required, and may occasionally be required to travel on Company business.

2.4 Employee's Obligations. Employee covenants and agrees, as a condition of accepting or continuing employment with the Company, to all the terms and conditions in the operative Employee Handbook executed by Employee and all Company policies, procedures, and other agreements now in existence or hereafter implemented, including, without limitation, the duty to:

(a) Comply with all Company policies and procedures as set forth in the Employee Handbook, policy and procedure manuals, safety manuals, and other sources (as amended from time to time);

(b) Devote his full time and attention to meet the requirements set forth in the job description, the objectives or duties of which may change in the Company's discretion;

(c) Follow the direction and recommendations of the Board;

(d) Refrain from investing in any direct competitor of the Company, except that Employee may at any time own beneficially up to one (1%) of the stock of any competing corporation whose securities are listed on a national securities exchange or regularly traded in the national over-the-counter-market;

(e) Observe and comply at all times with the provisions of the Company's insider trading policy (as amended, from time to time) and with every rule of law and every regulation in force in relation to dealings in stock, shares, debentures or other securities of the Company (including in relation to unpublished price sensitive information affecting such securities), in whatever jurisdiction, and to observe and comply with all laws and regulations of any stock exchange, market or dealing system in which such dealings take place; and

(f) Refrain from directly or indirectly render any services of a business, commercial, or professional nature to any other person or organization, whether for compensation or otherwise, which would be in competition with the Company, or which would prevent Employee from rendering the agreed services to Company during the tenure of his employment.

3. COMPENSATION.

3.1 Salary. The Employee will be paid an annual salary of \$491,400, less state and federal withholding and authorized deductions ("**Salary**"), on a bi-weekly basis (or according to the Company's customary payroll practices in effect at the time). The Employee's Salary shall be reviewed at least annually by the Board and the Board may, but shall not be required to, increase the Employee's Salary. However, the Employee's Salary may not be decreased without the Employee's consent, other than as part of an across-the-board salary reduction that applies in the same manner to all senior executives.

3.2 Annual Performance-Based Bonuses.

3.2.1 Except as otherwise stated herein, Employee shall be eligible to receive annual performance-based short-term incentive bonuses (each a "**STIP Bonus**") of up to 100% of his then-current Salary, based upon achievement of specific performance milestones ("**Milestones**") established by the Compensation Committee of the Board ("**Committee**") in advance and at its discretion. The STIP Bonus shall be paid, at the Company's option, in cash or restricted stock units ("**RSUs**") under the Plan.

3.2.2 Except as otherwise stated herein, Employee shall be eligible to receive annual performance-based long-term incentive bonuses (each a "**LTIP Bonus**") of up to 200% of his then-current Salary, based upon achievement of Milestones established by the Committee in advance and at its discretion. The LTIP Bonus shall be paid in RSUs under the Plan.

3.2.3 Each RSU shall entitle the Employee to receive one (1) share of the Company's \$0.001 par value common stock ("**Common Stock**") based on satisfaction of the Milestones. Upon the Committee's determination of the satisfaction of the relevant Milestones for any annual STIP or LTIP Bonus, and the amount of STIP Bonus and LTIP Bonus earned, the Committee shall cause the Company to provide the Employee with an award of cash or RSUs, or a combination of both, in the case of the STIP Bonus and RSUs in the case of the LTIP Bonus. The number of RSUs to be awarded to the Employee shall be the dollar value of the STIP Bonus or LTIP Bonus to be paid in RSUs divided by the Fair Market Value (as such term is defined in the Plan) of one share of Common Stock as of the award date.

3.3 Benefits. Employee shall be entitled to the insurance and employee benefits set forth in the Employee Handbook and such other benefits that are made available generally to senior management of the Company ("**Benefits**"). The Company does not warrant that it will continue to offer the same or similar medical insurance benefits or other related Benefits in the future and reserves the right to modify, reduce, or eliminate benefits at its sole discretion subject to applicable law.

3.4 Expenses. The Employee is entitled to reimbursement for all reasonable and necessary out-of-pocket business, entertainment, and travel expenses incurred in connection with the performance of his duties hereunder in accordance with the Company's expense reimbursement policies and procedures.

3.5 Withholding. The Company has the right to withhold from any amount payable hereunder any Federal, state, and local taxes in order for the Company to satisfy any withholding tax obligation it may have under any applicable law or regulation. Further, the Employee shall make arrangements satisfactory to the Company to pay to the Company any federal, state or local income taxes required to be withheld with respect to any Incentive Awards. If the Employee shall fail to make such tax payments as are required, the Company shall, to the extent permitted by law, have the right to deduct from any payment of any kind otherwise due to the Employee any federal, state or local taxes of any kind required by law to be withheld with respect to any such Incentive Award.

3.6 Incentive Compensation Clawback. Notwithstanding any other provisions in this Agreement to the contrary, any (a) incentive-based compensation paid to Employee for meeting a financial reporting measure that is based on or derived from financial information or (b) other compensation paid to Employee under this Agreement or any other agreement or arrangement with the Company which is subject to recovery under any law, government regulation, or stock exchange listing requirement, will be subject to such deductions and clawback as may be required to be made pursuant to such law, government regulation, or NASDAQ listing requirement (or any policy adopted by the Company pursuant to any such law, government regulation or NASDAQ listing requirement).

3.7 Section 409A. It is intended that any amounts payable under this Agreement (including [Section 3](#) and [Section 5.4](#)) and the Company's and Employee's exercise of authority or discretion hereunder shall be exempt from, or comply with, Section 409A of the Internal Revenue Code of 1986, as amended ("**Code**") , including the Treasury Regulations and other published guidance relating thereto (collectively, "**Code Section 409A**"), so as not to subject Employee to the payment of any interest or additional tax imposed under Code Section 409A. This Agreement shall be interpreted on a basis consistent with such intent. If any payments or benefits provided to Employee by the Company, either per this Agreement or otherwise, are non-qualified deferred compensation subject to, and not exempt from, Code Section 409A ("**Subject Payments**"), the following provisions shall apply to such payments and/or benefits:

3.7.1 For payments and benefits triggered by termination of employment, reference to Employee's "termination of employment" (and corollary terms) with the Company shall be construed to refer to Employee's "separation from service" from the Company (with such phrase determined under Treas. Reg. Section 1.409A-1(h), as uniformly applied by the Company) in tandem with the termination of his employment with the Company.

3.7.2 If Employee is deemed on the date of his "separation from service" to be a "specified employee" (within the meaning of Treas. Reg. Section 1.409A-1(i)), then with regard to any payment that is required to be delayed pursuant to Code Section 409A(a)(2)(B) (the "**Delayed Payments**"), such payment shall not be made prior to the earlier of (i) the first day of the seventh month following the date of his "separation from service" and (ii) the date of his death. The Delayed Payments shall be paid to Employee in a lump sum promptly following the date set forth in the preceding sentence. Any payments other than the Delayed Payments shall be paid in accordance with the normal payment dates specified herein. In no case will the delay of any of the Delayed Payments by the Company constitute a breach of the Company's obligations to Employee.

3.7.3 Employee's right to receive installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments.

3.7.4 Whenever a payment under this Agreement specifies a payment period with reference to a number of days, the actual date of payment within the specified period shall be within the sole discretion of the Company.

3.7.5 If the 60 day period following Employee's "separation from service" begins in one calendar year and ends in a second calendar year (a "**Crossover 60-Day Period**"), then any severance payments subject to Code Section 409A that would otherwise occur during the portion of the Crossover 60-Day Period that falls within the first year will be delayed and paid in a lump-sum upon the later of (i) January 1 of the calendar year following the calendar year in which Employee's "separation from service" occurs, and (ii) the date when the payment of severance payments would otherwise begin hereunder.

3.7.6 Notwithstanding any other provision of this Agreement to the contrary, in no event shall any Subject Payment be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

3.7.7 To the extent that any reimbursement or in-kind benefits are Subject Payments: (i) the amount eligible for reimbursement or in-kind benefit in one calendar year may not affect the amount eligible for reimbursement or in-kind benefit in any other calendar year (except that a plan providing medical or health benefits may impose a generally applicable limit on the amount that may be reimbursed or paid), (ii) the right to reimbursement or an in-kind benefit is not subject to liquidation or exchange for another benefit, and (iii) subject to any shorter time periods provided herein, any such reimbursement of an expense or in-kind benefit must be made on or before the last day of the calendar year following the calendar year in which the expense was incurred.

3.7.8 If an amendment of this Agreement is necessary in order for it to comply with Code Section 409A, Employee and the Company agree to negotiate in good faith to amend this Agreement in a manner that preserves the original intent of the parties hereto to the extent reasonably possible.

3.8 Limitation on Payments. In the event that the benefits provided for in this Agreement or otherwise payable to Employee (i) constitute “parachute payments” within the meaning of Section 280G of the Code, and (ii) would be subject to the excise tax imposed by Section 4999 of the Code (the “*Excise Tax*”), then Employee’s benefits under this Agreement shall be either (A) delivered, subject to any applicable tax or other withholdings, in full, or (B) delivered, subject to any applicable tax or other withholdings, to such lesser extent as would result in no portion of such benefits being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by Employee, on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under Section 4999 of the Code. Unless the Company and Employee otherwise agree in writing, any determination required under this Section shall be made in writing by an independent public accountant chosen by the Company (the “*Accountant*”), whose determination shall be conclusive and binding upon Employee and the Company for all purposes. For purposes of making the calculations required by this Section, the Accountant may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Section 280G and 4999 of the Code. The Company and Employee shall furnish to the Accountant such information and documents as the Accountant may reasonably request in order to make a determination under this Section. The Company shall bear all costs the Accountant may reasonably incur in connection with any calculations contemplated by this Section.

4. PROTECTION/NON-DISCLOSURE OF COMPANY CONFIDENTIAL INFORMATION AND TRADE SECRETS. Employee acknowledges having entered into that certain Confidential Information, Non-Disclosure, and Trade Secrets Agreement attached hereto as Exhibit A to this Agreement (“*Confidentiality Agreement*”) dated 7/10/2023 with the Company. Employee covenants and agrees to strictly comply with the terms of Confidentiality Agreement during the term of this Agreement and following the termination of his employment with the Company, as provided for in the Confidentiality Agreement.

5. TERMINATION. In accordance with Section 1, either party may terminate the employment relationship and this Agreement at any time and for any reason; provided that, unless otherwise provided herein, either party shall be required to give the other party at least 30 days advance written notice of any termination of the Employee’s employment. Notwithstanding the foregoing, the Company shall be entitled to terminate the Agreement for Cause immediately upon delivery of written notice.

5.1 Final Pay and Expenses. Upon the termination of employment, the Company shall pay Employee all Salary and unreimbursed expenses due through the date on which employment terminates.

5.2 Resignation of all Other Positions. Upon termination of employment, Employee shall be deemed to have resigned from all positions that the Employee holds as an officer, employee, or member of the Board (or a committee thereof) of the Company or any of its affiliates.

5.3 Return of Property. Upon termination of employment, Employee shall return all Company's property such as cell phones, laptops, or other tangible and intangible property including, without limitation, customer lists, manuals, contract forms, documents or any other tangible or intangible documents or information used by the Company in the Employee's possession at the time of termination, in a manner consistent with Company policy.

5.4 Severance on Termination

5.4.1 Absent a Change in Control. In addition to payments under Section 5.1 and subject to Section 5.4.3, if Employee's employment is terminated, either (i) by the Company (other than for Cause, Disability, or death), or (ii) by the Employee for Good Reason, then the Employee (or his estate or personal representative), shall be entitled to (a) equal installment payments of Employee's then-current Salary, less all federal and state withholding, for a period of 24 months, payable in accordance with the Company's normal payroll practices; (b) the Company's payment or reimbursement of Employee's Benefits in effect at the time of the Notice of Termination for a period of 24 months; and (c) a pro-rata percentage of Employee's STIP Bonus and LTIP Bonus, assuming the satisfaction of all Milestones, as contemplated by Section 3.2 for the calendar year in which the termination takes place, calculated based on the number of days of the calendar year that Employee was employed, and payable in accordance with the Company's normal practice for the payment of such bonuses.

5.4.2 Following a Change in Control. In addition to payments under Section 5.1 and subject to Section 5.4.3, if Employee's employment is terminated during the Protected Period following a Change in Control, either (i) by the Company (other than for Cause, Disability or death), or (ii) by the Employee for Good Reason:

5.4.2.1 the Employee (or his estate or personal representative): shall be entitled to (a) equal installment payments of Employee's then-current Salary, less all federal and state withholding, for a period of 24 months, payable in accordance with the Company's normal payroll practices; (b) the Company's payment or reimbursement of Employee's Benefits in effect at the time of the Notice of Termination for a period of 24 months; and (c) Employee's entire STIP Bonus and LTIP Bonus, assuming the satisfaction of all Milestones, as contemplated by Section 3.2 for the calendar year in which the termination takes place, multiplied by 2, and payable in accordance with the Company's normal practice for the payment of such bonuses.

5.4.2.2 all outstanding and unvested Incentive Awards held by Employee as of the Date of Termination shall vest in full; provided however, if an outstanding Incentive Award is subject to Code Section 409A, the acceleration of vesting will not change the time or form of payment in a manner that would violate Code Section 409A; if an outstanding Incentive Award is exempt from Code Section 409A, the Incentive Award will be administered in a manner that retains such exemption or otherwise complies with Code Section 409A. Any outstanding Incentive Awards held by the Employee as of the Date of Termination shall remain exercisable and subject to termination as provided in the Plan.

5.4.3 Conditions to Receiving Severance. The receipt of any severance pursuant to this Section is subject to: (a) Employee timely signing and not revoking prior to the expiration of any revocation rights afforded to Employee by applicable law a customary separation agreement and general release of claims in a form determined by and acceptable to the Company in its reasonable discretion ("**Release Agreement**") and (b) Employee's continued compliance with any obligations to the Company that survive termination of his employment, including the Confidentiality Agreement. The Company shall provide Employee with the Release Agreement on or around the Date of Termination, and Employee must deliver the executed Release Agreement to the Company within twenty-one (21) days (or, if greater, the minimum period required by applicable law) after receipt of the Release Agreement, failing which Employee will forfeit all rights to any portion of the severance provided pursuant to this Section. No severance will be paid or provided unless and until the Release Agreement becomes effective.

6. MISCELLANEOUS.

6.1 Notices. All notices, requests, demands and other communications called for under this Agreement shall be in writing and shall be delivered personally by hand or by courier, mailed by United States first-class mail, postage prepaid, or sent by electronic mail directed to the party to be notified at the address or electronic mail address indicated for such party:

If to Employee: Stephen Cotton
6769 Rabbit Brush Court
Reno, NV 89511
Email: stevedcotton@gmail.com

If to Company: Aqua Metals, Inc.
5370 Kietzke Ln #201
Reno, Nevada 89511
Attn: Judd Merrill
Email: judd.merrill@aquametals.com

or at such other address or electronic mail address as such party may designate by written notice to the other party hereto. All such notices and other communications shall be deemed given upon personal delivery, three (3) days after the date of mailing, or upon confirmation of electronic mail.

6.2 Successors and Assigns. This Agreement shall inure to the benefit of, and be binding on Employee, his heirs, executors, and administrators and on the Company, its successors and assigns. This Agreement may be assigned at any time by Company to any related corporation or a successor corporation. In the event of such an assignment, the assignee corporation to which the Agreement is assigned shall automatically be substituted for the assignor Company for all intentions and purposes and to the same extent as if this assignee were the Company that had originally executed this Agreement. This is a personal contract and the Employee cannot assign or transfer all or any portion of the contract, except that in the event of the Employee's death, the compensation due and owing the Employee can be paid in accordance with any assignment of death benefits.

6.3 Waiver. The waiver by either party of a default or a breach of any provision of this Agreement by the other party shall not operate or be construed as a waiver of any subsequent default or breach.

6.4 Modifications. The provisions of this Agreement shall constitute the entire agreement between the parties, with respect to the specific terms set forth herein, and may only be modified by an agreement in writing signed by the party against whom enforcement is sought. Modifications to this Agreement do not change or alter the at-will status of the Employee.

6.5 Construction of Agreement. This Agreement shall be construed consistently with the terms and conditions of all other Company policies and procedures, which are referenced in this Agreement. If there is any conflict with the terms of this Agreement and Company policy or procedure, this Agreement shall control, to the maximum extent permitted by law.

6.6 Entire Agreement. Except as otherwise provided herein, this Agreement contains all of the understandings and representations between the Employee and the Company pertaining to the subject matter hereof, and supersedes any prior employment agreements (and amendments thereto) between the Employee and the Company, including without limitation, the Prior Agreement. This Agreement will be interpreted independently of and does not modify or supersede any and all agreements executed by Employee pertaining to Incentive Awards (including but not limited to the Plan). Nothing in this Agreement shall be deemed to modify or supersede the Confidentiality Agreement or that certain Indemnification Agreement dated May 5, 2015 between Employee and the Company.

6.7 Attorneys' Fees. The prevailing party in any action brought to enforce this Agreement may recover reasonable attorneys' fees and costs including all costs and fees incurred in the preparation, trial and appeal of an action brought to enforce this Agreement.

6.8 Applicable Law. It is the intent of the parties that all provisions of this Agreement be enforced to the fullest extent permissible under the law and public policy of the state of Nevada.

6.9 Arbitration. The Parties hereby agree to waive their right to have any dispute, controversy, or claim (“*Claim*”) between them resolved in a court of law by a judge or jury, and agree that any and all Claims arising out of the terms and/or enforcement of this Agreement (excluding any Claim(s) that, as a matter of law, the Parties cannot be compelled to arbitrate under applicable federal, state, or local law) shall be subject to binding, individual arbitration enforceable under and governed by the Federal Arbitration Act, 9 U.S.C. § 1 et seq. (the “*FAA*”), to the exclusion of any state law inconsistent with the FAA, in Reno, Nevada before AAA, pursuant to the AAA Employment Arbitration Rules & Procedures, which (i) the Parties can obtain on the AAA website (<https://www.adr.org/employment>), and (ii) are incorporated herein by reference. The Parties intend and agree that (i) class action and representative action procedures are hereby waived and shall not be asserted, nor will they apply, in any arbitration pursuant to this Agreement; (ii) each Party agrees, to the fullest extent permitted under the law, that it will not assert class action or representative action Claims against the other Party in arbitration or otherwise; and (iii) the Parties shall only submit their own, individual Claims in arbitration and will not seek to represent the interests of any other person. The Company will pay all costs unique to arbitration, including the arbitrator’s fees and AAA administrative costs. The Parties are entitled to conduct adequate discovery in accordance with AAA Rules and the arbitrator shall have the authority to determine what constitutes adequate discovery. Neither Party shall be denied the right to file a pleading challenge or motion for summary disposition of a particular claim or issue. The arbitrator’s decision must be in a written reasoned opinion containing the arbitrator’s findings of fact and conclusions of law. Resolution of all disputes shall be based solely upon the law governing the claims and defenses pleaded, and the arbitrator may award only remedies that would have applied had the case been heard in court. Judgment may be entered on the arbitrator’s decision in any court with jurisdiction. The arbitrator may grant injunctions and other relief in Claims subject to arbitration pursuant to this Agreement. Notwithstanding the foregoing, either Party may seek injunctive relief (or any other provisional remedy) from any court having jurisdiction over the Parties and the subject matter of their Claim relating to this Agreement and any agreements incorporated herein by reference. The decision of the arbitrator shall be final, conclusive, and binding on the Parties. The Parties agree that that the prevailing party in any arbitration shall be entitled to injunctive relief in any court of competent jurisdiction to enforce the arbitration award.

6.10 Severability. If any section is determined by a court of law to be unenforceable, that section shall be severed from the Agreement and the balance of the Agreement shall be enforced according to its terms.

6.11 Survival. Upon the expiration or other termination of this Agreement, the respective rights and obligations of the parties hereto shall survive such expiration or other termination to the extent necessary to carry out the intentions of the parties under this Agreement, including but not limited to Employee’s obligations with respect to the Confidentiality Agreement.

7. DEFINITIONS. Capitalized terms used in this Agreement but not otherwise defined herein shall have the meaning hereby assigned to them as follows:

7.1 “Cause” has the meaning given to it in Section 2.3 of the Plan.

7.2 “Change in Control” has the meaning given to it in Section 2.4 of the Plan.

7.3 “Date of Termination” means the date the Employee’s employment is terminated by the Company without Cause or by the Employee with Good Reason, provided such termination constitutes a separation from service as defined in Section 409A of the U.S. Internal Revenue Code.

7.4 “**Disability**” has the meaning given to it in Section 2.8 of the Plan.

7.5 “**Good Reason**” means the continued occurrence of any of the following conditions without Employee’s consent after the Employee has given the Company written notice of such condition within thirty (30) days following the initial existence of the condition, and the Company has failed to cure such condition within thirty (30) days of the date it received notice of the condition: (i) a material reduction by the Company in the Employee’s then-current Salary (other than as permitted by Section 3.1); (ii) a material, adverse change in the Employee’s duties, authority, or responsibilities (other than temporarily while the Employee is physically or mentally incapacitated or as required by applicable law), taking into account the Company’s size, status as a public company, and capitalization as of the date of this Agreement, and unless such change in duties, authority, or responsibilities occurs in connection with Employee’s engagement in any action or any inaction that would otherwise enable the Company to terminate the Employee for Cause; or (iii) the unilateral relocation of the Employee’s principal location for performing services more than fifty (50) miles from the Employee’s work location. If the Employee does not terminate employment for Good Reason within 60 days after the first occurrence of the applicable grounds, then the Employee will be deemed to have waived the right to terminate for Good Reason with respect to such grounds.

7.6 “**Incentive Award**” has the meaning given to it in Section 2.13 of the Plan.

7.7 “**Notice of Termination**” refers to the date that either party provides notice to the other of their intention to terminate the Agreement and employment relationship.

7.8 “**Plan**” refers to the Company’s 2019 Stock Incentive Plan, as it may be amended from time to time, or any successor equity incentive plan.

7.9 “**Protected Period**” means the 12-month period immediately following a Change in Control.

8. **EMPLOYEE CERTIFICATION.** Employee hereby certifies that he has had an adequate opportunity to review and understands all the terms and conditions of this Agreement, and that he has had the opportunity to ask questions and consult with an attorney of his choosing before signing this Agreement.

[Signatures on next page]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of the day and year first above written.

EMPLOYEE

By: /s/ Stephen Cotton
Stephen Cotton

COMPANY

Aqua Metals, Inc.,
A Delaware corporation

By: /s/ Edward Smith
Edward Smith,
Compensation Committee Chairman

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

THIS AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT is entered into effective as of August 7, 2023 between AQUA METALS, INC., a Delaware corporation (“*Company*”) and Judd Merrill (“*Employee*”) (collectively, the “*Parties*,” and individually, a “*Party*”), and constitutes an amendment and restatement to that certain Executive Employment Agreement dated November 4, 2018, by and between the Company and Employee, as amended to date (the “*Prior Agreement*”). Effective as of the Effective Date, this Agreement hereby supersedes, replaces, amends, and restates the Prior Agreement.

RECITALS

WHEREAS, the Company and Employee entered into the Prior Agreement and now wish to continue their employment relationship on the following terms and conditions;

NOW, THEREFORE, in consideration of the mutual promises, covenants and conditions herein, the Parties agree as follows:

1. TERM. Employee acknowledges that he is not employed for a specific term but is an at-will employee who may resign at any time, with or without notice. Likewise, the Company may terminate the Employee’s employment at any time, with or without notice, and with or without cause or reason.

2. POSITION, DUTIES, AND OBLIGATIONS.

2.1 General. Company hereby employs Employee in accordance with the terms of this Agreement; the Third Amended and Restated Bylaws of the Company, as further amended from time to time (“*Bylaws*”); all the policies and procedures set forth in the Company’s employee handbook as in effect as of the date of this Agreement, and as it may be modified or amended in the future (“*Employee Handbook*”); and any other Company policies or procedures currently in effect or subsequently implemented.

2.2 Title and Duties. Employee shall be employed hereunder as Chief Financial Officer of the Company. In such position, Employee shall serve as the principal financial officer of the Company and the Company has the absolute right to assign Employee new or different job duties as deemed appropriate by the Company.

2.3 Work Location. Employee shall provide his services hereunder from the Company’s headquarters in Reno, Nevada and shall travel to the Company’s facilities in McCarran, Nevada as required, and may occasionally be required to travel on Company business.

2.4 Employee's Obligations. Employee covenants and agrees, as a condition of accepting or continuing employment with the Company, to all the terms and conditions in the operative Employee Handbook executed by Employee and all Company policies, procedures, and other agreements now in existence or hereafter implemented, including, without limitation, the duty to:

(a) Comply with all Company policies and procedures as set forth in the Employee Handbook, policy and procedure manuals, safety manuals, and other sources (as amended from time to time);

(b) Devote his full time and attention to meet the requirements set forth in the job description, the objectives or duties of which may change in the Company's discretion;

(c) Follow the direction and recommendations of the Board;

(d) Refrain from investing in any direct competitor of the Company, except that Employee may at any time own beneficially up to one (1%) of the stock of any competing corporation whose securities are listed on a national securities exchange or regularly traded in the national over-the-counter-market;

(e) Observe and comply at all times with the provisions of the Company's insider trading policy (as amended, from time to time) and with every rule of law and every regulation in force in relation to dealings in stock, shares, debentures or other securities of the Company (including in relation to unpublished price sensitive information affecting such securities), in whatever jurisdiction, and to observe and comply with all laws and regulations of any stock exchange, market or dealing system in which such dealings take place; and

(f) Refrain from directly or indirectly render any services of a business, commercial, or professional nature to any other person or organization, whether for compensation or otherwise, which would be in competition with the Company, or which would prevent Employee from rendering the agreed services to Company during the tenure of his employment.

3. COMPENSATION.

3.1 Salary. The Employee will be paid an annual salary of \$360,500.00, less state and federal withholding and authorized deductions ("**Salary**"), on a bi-weekly basis (or according to the Company's customary payroll practices in effect at the time). The Employee's Salary shall be reviewed at least annually by the Board and the Board may, but shall not be required to, increase the Employee's Salary. However, the Employee's Salary may not be decreased without the Employee's consent, other than as part of an across-the-board salary reduction that applies in the same manner to all senior executives.

3.2 Annual Performance-Based Bonuses.

3.2.1 Except as otherwise stated herein, Employee shall be eligible to receive annual performance-based short-term incentive bonuses (each a "**STIP Bonus**") of up to 75% of his then-current Salary, based upon achievement of specific performance milestones ("**Milestones**") established by the Compensation Committee of the Board ("**Committee**") in advance and at its discretion. The STIP Bonus shall be paid, at the Company's option, in cash or restricted stock units ("**RSUs**") under the Plan.

3.2.2 Except as otherwise stated herein, Employee shall be eligible to receive annual performance-based long-term incentive bonuses (each a "**LTIP Bonus**") of up to 125% of his then-current Salary, based upon achievement of Milestones established by the Committee in advance and at its discretion. The LTIP Bonus shall be paid in RSUs under the Plan.

3.2.3 Each RSU shall entitle the Employee to receive one (1) share of the Company's \$0.001 par value common stock ("**Common Stock**") based on satisfaction of the Milestones. Upon the Committee's determination of the satisfaction of the relevant Milestones for any annual STIP or LTIP Bonus, and the amount of STIP Bonus and LTIP Bonus earned, the Committee shall cause the Company to provide the Employee with an award of cash or RSUs, or a combination of both, in the case of the STIP Bonus and RSUs in the case of the LTIP Bonus. The number of RSUs to be awarded to the Employee shall be the dollar value of the STIP Bonus or LTIP Bonus to be paid in RSUs divided by the Fair Market Value (as such term is defined in the Plan) of one share of Common Stock as of the award date.

3.3 Benefits. Employee shall be entitled to the insurance and employee benefits set forth in the Employee Handbook and such other benefits that are made available generally to senior management of the Company ("**Benefits**"). The Company does not warrant that it will continue to offer the same or similar medical insurance benefits or other related Benefits in the future and reserves the right to modify, reduce, or eliminate benefits at its sole discretion subject to applicable law.

3.4 Expenses. The Employee is entitled to reimbursement for all reasonable and necessary out-of-pocket business, entertainment, and travel expenses incurred in connection with the performance of his duties hereunder in accordance with the Company's expense reimbursement policies and procedures.

3.5 Withholding. The Company has the right to withhold from any amount payable hereunder any Federal, state, and local taxes in order for the Company to satisfy any withholding tax obligation it may have under any applicable law or regulation. Further, the Employee shall make arrangements satisfactory to the Company to pay to the Company any federal, state or local income taxes required to be withheld with respect to any Incentive Awards. If the Employee shall fail to make such tax payments as are required, the Company shall, to the extent permitted by law, have the right to deduct from any payment of any kind otherwise due to the Employee any federal, state or local taxes of any kind required by law to be withheld with respect to any such Incentive Award.

3.6 Incentive Compensation Clawback. Notwithstanding any other provisions in this Agreement to the contrary, any (a) incentive-based compensation paid to Employee for meeting a financial reporting measure that is based on or derived from financial information or (b) other compensation paid to Employee under this Agreement or any other agreement or arrangement with the Company which is subject to recovery under any law, government regulation, or stock exchange listing requirement, will be subject to such deductions and clawback as may be required to be made pursuant to such law, government regulation, or NASDAQ listing requirement (or any policy adopted by the Company pursuant to any such law, government regulation or NASDAQ listing requirement).

3.7 Section 409A. It is intended that any amounts payable under this Agreement (including [Section 3](#) and [Section 5.4](#)) and the Company's and Employee's exercise of authority or discretion hereunder shall be exempt from, or comply with, Section 409A of the Internal Revenue Code of 1986, as amended ("**Code**") , including the Treasury Regulations and other published guidance relating thereto (collectively, "**Code Section 409A**"), so as not to subject Employee to the payment of any interest or additional tax imposed under Code Section 409A. This Agreement shall be interpreted on a basis consistent with such intent. If any payments or benefits provided to Employee by the Company, either per this Agreement or otherwise, are non-qualified deferred compensation subject to, and not exempt from, Code Section 409A ("**Subject Payments**"), the following provisions shall apply to such payments and/or benefits:

3.7.1 For payments and benefits triggered by termination of employment, reference to Employee's "termination of employment" (and corollary terms) with the Company shall be construed to refer to Employee's "separation from service" from the Company (with such phrase determined under Treas. Reg. Section 1.409A-1(h), as uniformly applied by the Company) in tandem with the termination of his employment with the Company.

3.7.2 If Employee is deemed on the date of his "separation from service" to be a "specified employee" (within the meaning of Treas. Reg. Section 1.409A-1(i)), then with regard to any payment that is required to be delayed pursuant to Code Section 409A(a)(2)(B) (the "**Delayed Payments**"), such payment shall not be made prior to the earlier of (i) the first day of the seventh month following the date of his "separation from service" and (ii) the date of his death. The Delayed Payments shall be paid to Employee in a lump sum promptly following the date set forth in the preceding sentence. Any payments other than the Delayed Payments shall be paid in accordance with the normal payment dates specified herein. In no case will the delay of any of the Delayed Payments by the Company constitute a breach of the Company's obligations to Employee.

3.7.3 Employee's right to receive installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments.

3.7.4 Whenever a payment under this Agreement specifies a payment period with reference to a number of days, the actual date of payment within the specified period shall be within the sole discretion of the Company.

3.7.5 If the 60 day period following Employee's "separation from service" begins in one calendar year and ends in a second calendar year (a "**Crossover 60-Day Period**"), then any severance payments subject to Code Section 409A that would otherwise occur during the portion of the Crossover 60-Day Period that falls within the first year will be delayed and paid in a lump-sum upon the later of (i) January 1 of the calendar year following the calendar year in which Employee's "separation from service" occurs, and (ii) the date when the payment of severance payments would otherwise begin hereunder.

3.7.6 Notwithstanding any other provision of this Agreement to the contrary, in no event shall any Subject Payment be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

3.7.7 To the extent that any reimbursement or in-kind benefits are Subject Payments: (i) the amount eligible for reimbursement or in-kind benefit in one calendar year may not affect the amount eligible for reimbursement or in-kind benefit in any other calendar year (except that a plan providing medical or health benefits may impose a generally applicable limit on the amount that may be reimbursed or paid), (ii) the right to reimbursement or an in-kind benefit is not subject to liquidation or exchange for another benefit, and (iii) subject to any shorter time periods provided herein, any such reimbursement of an expense or in-kind benefit must be made on or before the last day of the calendar year following the calendar year in which the expense was incurred.

3.7.8 If an amendment of this Agreement is necessary in order for it to comply with Code Section 409A, Employee and the Company agree to negotiate in good faith to amend this Agreement in a manner that preserves the original intent of the parties hereto to the extent reasonably possible.

3.8 Limitation on Payments. In the event that the benefits provided for in this Agreement or otherwise payable to Employee (i) constitute “parachute payments” within the meaning of Section 280G of the Code, and (ii) would be subject to the excise tax imposed by Section 4999 of the Code (the “*Excise Tax*”), then Employee’s benefits under this Agreement shall be either (A) delivered, subject to any applicable tax or other withholdings, in full, or (B) delivered, subject to any applicable tax or other withholdings, to such lesser extent as would result in no portion of such benefits being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by Employee, on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under Section 4999 of the Code. Unless the Company and Employee otherwise agree in writing, any determination required under this Section shall be made in writing by an independent public accountant chosen by the Company (the “*Accountant*”), whose determination shall be conclusive and binding upon Employee and the Company for all purposes. For purposes of making the calculations required by this Section, the Accountant may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Section 280G and 4999 of the Code. The Company and Employee shall furnish to the Accountant such information and documents as the Accountant may reasonably request in order to make a determination under this Section. The Company shall bear all costs the Accountant may reasonably incur in connection with any calculations contemplated by this Section.

4. PROTECTION/NON-DISCLOSURE OF COMPANY CONFIDENTIAL INFORMATION AND TRADE SECRETS. Employee acknowledges having entered into that certain Confidential Information, Non-Disclosure, and Trade Secrets Agreement attached hereto as Exhibit A to this Agreement (“*Confidentiality Agreement*”) dated February 18, 2020 with the Company. Employee covenants and agrees to strictly comply with the terms of Confidentiality Agreement during the term of this Agreement and following the termination of his employment with the Company, as provided for in the Confidentiality Agreement.

5. TERMINATION. In accordance with Section 1, either party may terminate the employment relationship and this Agreement at any time and for any reason; provided that, unless otherwise provided herein, either party shall be required to give the other party at least 30 days advance written notice of any termination of the Employee’s employment. Notwithstanding the foregoing, the Company shall be entitled to terminate the Agreement for Cause immediately upon delivery of written notice.

5.1 Final Pay and Expenses. Upon the termination of employment, the Company shall pay Employee all Salary and unreimbursed expenses due through the date on which employment terminates.

5.2 Resignation of all Other Positions. Upon termination of employment, Employee shall be deemed to have resigned from all positions that the Employee holds as an officer, employee, or member of the Board (or a committee thereof) of the Company or any of its affiliates.

5.3 Return of Property. Upon termination of employment, Employee shall return all Company's property such as cell phones, laptops, or other tangible and intangible property including, without limitation, customer lists, manuals, contract forms, documents or any other tangible or intangible documents or information used by the Company in the Employee's possession at the time of termination, in a manner consistent with Company policy.

5.4 Severance on Termination

5.4.1 Absent a Change in Control. In addition to payments under Section 5.1 and subject to Section 5.4.3, if Employee's employment is terminated, either (i) by the Company (other than for Cause, Disability, or death), or (ii) by the Employee for Good Reason, then the Employee (or his estate or personal representative), shall be entitled to (a) equal installment payments of Employee's then-current Salary, less all federal and state withholding, for a period of 18 months, payable in accordance with the Company's normal payroll practices; (b) the Company's payment or reimbursement of Employee's Benefits in effect at the time of the Notice of Termination for a period of 18 months; and (c) a pro-rata percentage of Employee's STIP Bonus and LTIP Bonus, assuming the satisfaction of all Milestones, as contemplated by Section 3.2 for the calendar year in which the termination takes place, calculated based on the number of days of the calendar year that Employee was employed, and payable in accordance with the Company's normal practice for the payment of such bonuses.

5.4.2 Following a Change in Control. In addition to payments under Section 5.1 and subject to Section 5.4.3, if Employee's employment is terminated during the Protected Period following a Change in Control, either (i) by the Company (other than for Cause, Disability or death), or (ii) by the Employee for Good Reason:

5.4.2.1 the Employee (or his estate or personal representative): shall be entitled to (a) equal installment payments of Employee's then-current Salary, less all federal and state withholding, for a period of 18 months, payable in accordance with the Company's normal payroll practices; (b) the Company's payment or reimbursement of Employee's Benefits in effect at the time of the Notice of Termination for a period of 18 months; and (c) Employee's entire STIP Bonus and LTIP Bonus, assuming the satisfaction of all Milestones, as contemplated by Section 3.2 for the calendar year in which the termination takes place, multiplied by 1.5, and payable in accordance with the Company's normal practice for the payment of such bonuses.

5.4.2.2 all outstanding and unvested Incentive Awards held by Employee as of the Date of Termination shall vest in full; provided however, if an outstanding Incentive Award is subject to Code Section 409A, the acceleration of vesting will not change the time or form of payment in a manner that would violate Code Section 409A; if an outstanding Incentive Award is exempt from Code Section 409A, the Incentive Award will be administered in a manner that retains such exemption or otherwise complies with Code Section 409A. Any outstanding Incentive Awards held by the Employee as of the Date of Termination shall remain exercisable and subject to termination as provided in the Plan.

5.4.3 Conditions to Receiving Severance. The receipt of any severance pursuant to this Section is subject to: (a) Employee timely signing and not revoking prior to the expiration of any revocation rights afforded to Employee by applicable law a customary separation agreement and general release of claims in a form determined by and acceptable to the Company in its reasonable discretion ("**Release Agreement**") and (b) Employee's continued compliance with any obligations to the Company that survive termination of his employment, including the Confidentiality Agreement. The Company shall provide Employee with the Release Agreement on or around the Date of Termination, and Employee must deliver the executed Release Agreement to the Company within twenty-one (21) days (or, if greater, the minimum period required by applicable law) after receipt of the Release Agreement, failing which Employee will forfeit all rights to any portion of the severance provided pursuant to this Section. No severance will be paid or provided unless and until the Release Agreement becomes effective.

6. MISCELLANEOUS.

6.1 Notices. All notices, requests, demands and other communications called for under this Agreement shall be in writing and shall be delivered personally by hand or by courier, mailed by United States first-class mail, postage prepaid, or sent by electronic mail directed to the party to be notified at the address or electronic mail address indicated for such party:

If to Employee: Judd Merrill
2425 Crooked Canyon Ct.
Reno, NV 89521
Email: judd.merrill@sbcglobal.net

If to Company: Aqua Metals, Inc.
5370 Kietzke Ln #201
Reno, Nevada 89511
Attn: Judd Merrill
Email: judd.merrill@aquametals.com

or at such other address or electronic mail address as such party may designate by written notice to the other party hereto. All such notices and other communications shall be deemed given upon personal delivery, three (3) days after the date of mailing, or upon confirmation of electronic mail.

6.2 Successors and Assigns. This Agreement shall inure to the benefit of, and be binding on Employee, his heirs, executors, and administrators and on the Company, its successors and assigns. This Agreement may be assigned at any time by Company to any related corporation or a successor corporation. In the event of such an assignment, the assignee corporation to which the Agreement is assigned shall automatically be substituted for the assignor Company for all intentions and purposes and to the same extent as if this assignee were the Company that had originally executed this Agreement. This is a personal contract and the Employee cannot assign or transfer all or any portion of the contract, except that in the event of the Employee's death, the compensation due and owing the Employee can be paid in accordance with any assignment of death benefits.

6.3 Waiver. The waiver by either party of a default or a breach of any provision of this Agreement by the other party shall not operate or be construed as a waiver of any subsequent default or breach.

6.4 Modifications. The provisions of this Agreement shall constitute the entire agreement between the parties, with respect to the specific terms set forth herein, and may only be modified by an agreement in writing signed by the party against whom enforcement is sought. Modifications to this Agreement do not change or alter the at-will status of the Employee.

6.5 Construction of Agreement. This Agreement shall be construed consistently with the terms and conditions of all other Company policies and procedures, which are referenced in this Agreement. If there is any conflict with the terms of this Agreement and Company policy or procedure, this Agreement shall control, to the maximum extent permitted by law.

6.6 Entire Agreement. Except as otherwise provided herein, this Agreement contains all of the understandings and representations between the Employee and the Company pertaining to the subject matter hereof, and supersedes any prior employment agreements (and amendments thereto) between the Employee and the Company, including without limitation, the Prior Agreement. This Agreement will be interpreted independently of and does not modify or supersede any and all agreements executed by Employee pertaining to Incentive Awards (including but not limited to the Plan). Nothing in this Agreement shall be deemed to modify or supersede the Confidentiality Agreement or that certain Indemnification Agreement dated November 7, 2018 between Employee and the Company.

6.7 Attorneys' Fees. The prevailing party in any action brought to enforce this Agreement may recover reasonable attorneys' fees and costs including all costs and fees incurred in the preparation, trial and appeal of an action brought to enforce this Agreement.

6.8 Applicable Law. It is the intent of the parties that all provisions of this Agreement be enforced to the fullest extent permissible under the law and public policy of the state of Nevada.

6.9 Arbitration. The Parties hereby agree to waive their right to have any dispute, controversy, or claim (“*Claim*”) between them resolved in a court of law by a judge or jury, and agree that any and all Claims arising out of the terms and/or enforcement of this Agreement (excluding any Claim(s) that, as a matter of law, the Parties cannot be compelled to arbitrate under applicable federal, state, or local law) shall be subject to binding, individual arbitration enforceable under and governed by the Federal Arbitration Act, 9 U.S.C. § 1 et seq. (the “*FAA*”), to the exclusion of any state law inconsistent with the FAA, in Reno, Nevada before AAA, pursuant to the AAA Employment Arbitration Rules & Procedures, which (i) the Parties can obtain on the AAA website (<https://www.adr.org/employment>), and (ii) are incorporated herein by reference. The Parties intend and agree that (i) class action and representative action procedures are hereby waived and shall not be asserted, nor will they apply, in any arbitration pursuant to this Agreement; (ii) each Party agrees, to the fullest extent permitted under the law, that it will not assert class action or representative action Claims against the other Party in arbitration or otherwise; and (iii) the Parties shall only submit their own, individual Claims in arbitration and will not seek to represent the interests of any other person. The Company will pay all costs unique to arbitration, including the arbitrator’s fees and AAA administrative costs. The Parties are entitled to conduct adequate discovery in accordance with AAA Rules and the arbitrator shall have the authority to determine what constitutes adequate discovery. Neither Party shall be denied the right to file a pleading challenge or motion for summary disposition of a particular claim or issue. The arbitrator’s decision must be in a written reasoned opinion containing the arbitrator’s findings of fact and conclusions of law. Resolution of all disputes shall be based solely upon the law governing the claims and defenses pleaded, and the arbitrator may award only remedies that would have applied had the case been heard in court. Judgment may be entered on the arbitrator’s decision in any court with jurisdiction. The arbitrator may grant injunctions and other relief in Claims subject to arbitration pursuant to this Agreement. Notwithstanding the foregoing, either Party may seek injunctive relief (or any other provisional remedy) from any court having jurisdiction over the Parties and the subject matter of their Claim relating to this Agreement and any agreements incorporated herein by reference. The decision of the arbitrator shall be final, conclusive, and binding on the Parties. The Parties agree that that the prevailing party in any arbitration shall be entitled to injunctive relief in any court of competent jurisdiction to enforce the arbitration award.

6.10 Severability. If any section is determined by a court of law to be unenforceable, that section shall be severed from the Agreement and the balance of the Agreement shall be enforced according to its terms.

6.11 Survival. Upon the expiration or other termination of this Agreement, the respective rights and obligations of the parties hereto shall survive such expiration or other termination to the extent necessary to carry out the intentions of the parties under this Agreement, including but not limited to Employee’s obligations with respect to the Confidentiality Agreement.

7. DEFINITIONS. Capitalized terms used in this Agreement but not otherwise defined herein shall have the meaning hereby assigned to them as follows:

7.1 “Cause” has the meaning given to it in Section 2.3 of the Plan.

7.2 “Change in Control” has the meaning given to it in Section 2.4 of the Plan.

7.3 “Date of Termination” means the date the Employee’s employment is terminated by the Company without Cause or by the Employee with Good Reason, provided such termination constitutes a separation from service as defined in Section 409A of the U.S. Internal Revenue Code.

7.4 “**Disability**” has the meaning given to it in Section 2.8 of the Plan.

7.5 “**Good Reason**” means the continued occurrence of any of the following conditions without Employee’s consent after the Employee has given the Company written notice of such condition within thirty (30) days following the initial existence of the condition, and the Company has failed to cure such condition within thirty (30) days of the date it received notice of the condition: (i) a material reduction by the Company in the Employee’s then-current Salary (other than as permitted by Section 3.1); (ii) a material, adverse change in the Employee’s duties, authority, or responsibilities (other than temporarily while the Employee is physically or mentally incapacitated or as required by applicable law), taking into account the Company’s size, status as a public company, and capitalization as of the date of this Agreement, and unless such change in duties, authority, or responsibilities occurs in connection with Employee’s engagement in any action or any inaction that would otherwise enable the Company to terminate the Employee for Cause; or (iii) the unilateral relocation of the Employee’s principal location for performing services more than fifty (50) miles from the Employee’s work location. If the Employee does not terminate employment for Good Reason within 60 days after the first occurrence of the applicable grounds, then the Employee will be deemed to have waived the right to terminate for Good Reason with respect to such grounds.

7.6 “**Incentive Award**” has the meaning given to it in Section 2.13 of the Plan.

7.7 “**Notice of Termination**” refers to the date that either party provides notice to the other of their intention to terminate the Agreement and employment relationship.

7.8 “**Plan**” refers to the Company’s 2019 Stock Incentive Plan, as it may be amended from time to time, or any successor equity incentive plan.

7.9 “**Protected Period**” means the 12-month period immediately following a Change in Control.

8. **EMPLOYEE CERTIFICATION.** Employee hereby certifies that he has had an adequate opportunity to review and understands all the terms and conditions of this Agreement, and that he has had the opportunity to ask questions and consult with an attorney of his choosing before signing this Agreement.

[Signatures on next page]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of the day and year first above written.

EMPLOYEE

/s/ Judd Merrill

Judd Merrill

COMPANY

Aqua Metals, Inc.,
A Delaware corporation

By: */s/ Stephen Cotton*

Stephen Cotton,
Chief Executive Officer

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

THIS AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT is entered into effective as of August 7, 2023 between AQUA METALS, INC., a Delaware corporation (“*Company*”) and Benjamin Taecker (“*Employee*”) (collectively, the “*Parties*,” and individually, a “*Party*”), and constitutes an amendment and restatement to that certain Executive Employment Agreement dated August 9, 2021, by and between the Company and Employee, as amended to date (the “*Prior Agreement*”). Effective as of the Effective Date, this Agreement hereby supersedes, replaces, amends, and restates the Prior Agreement.

RECITALS

WHEREAS, the Company and Employee entered into the Prior Agreement and now wish to continue their employment relationship on the following terms and conditions;

NOW, THEREFORE, in consideration of the mutual promises, covenants and conditions herein, the Parties agree as follows:

1. TERM. Employee acknowledges that he is not employed for a specific term but is an at-will employee who may resign at any time, with or without notice. Likewise, the Company may terminate the Employee’s employment at any time, with or without notice, and with or without cause or reason.

2. POSITION, DUTIES, AND OBLIGATIONS.

2.1 General. Company hereby employs Employee in accordance with the terms of this Agreement; the Third Amended and Restated Bylaws of the Company, as further amended from time to time (“*Bylaws*”); all the policies and procedures set forth in the Company’s employee handbook as in effect as of the date of this Agreement, and as it may be modified or amended in the future (“*Employee Handbook*”); and any other Company policies or procedures currently in effect or subsequently implemented.

2.2 Title and Duties. Employee shall be employed hereunder as Chief Engineering and Operating Officer of the Company. In such position, Employee shall serve as the principal engineering and operating officer of the Company and the Company has the absolute right to assign Employee new or different job duties as deemed appropriate by the Company.

2.3 Work Location. Employee shall provide his services hereunder from the Company’s headquarters in Reno, Nevada and shall travel to the Company’s facilities in McCarran, Nevada as required, and may occasionally be required to travel on Company business.

2.4 Employee's Obligations. Employee covenants and agrees, as a condition of accepting or continuing employment with the Company, to all the terms and conditions in the operative Employee Handbook executed by Employee and all Company policies, procedures, and other agreements now in existence or hereafter implemented, including, without limitation, the duty to:

(a) Comply with all Company policies and procedures as set forth in the Employee Handbook, policy and procedure manuals, safety manuals, and other sources (as amended from time to time);

(b) Devote his full time and attention to meet the requirements set forth in the job description, the objectives or duties of which may change in the Company's discretion;

(c) Follow the direction and recommendations of the Board;

(d) Refrain from investing in any direct competitor of the Company, except that Employee may at any time own beneficially up to one (1%) of the stock of any competing corporation whose securities are listed on a national securities exchange or regularly traded in the national over-the-counter-market;

(e) Observe and comply at all times with the provisions of the Company's insider trading policy (as amended, from time to time) and with every rule of law and every regulation in force in relation to dealings in stock, shares, debentures or other securities of the Company (including in relation to unpublished price sensitive information affecting such securities), in whatever jurisdiction, and to observe and comply with all laws and regulations of any stock exchange, market or dealing system in which such dealings take place; and

(f) Refrain from directly or indirectly render any services of a business, commercial, or professional nature to any other person or organization, whether for compensation or otherwise, which would be in competition with the Company, or which would prevent Employee from rendering the agreed services to Company during the tenure of his employment.

3. COMPENSATION.

3.1 Salary. The Employee will be paid an annual salary of \$273,000.00, less state and federal withholding and authorized deductions ("**Salary**"), on a bi-weekly basis (or according to the Company's customary payroll practices in effect at the time). The Employee's Salary shall be reviewed at least annually by the Board and the Board may, but shall not be required to, increase the Employee's Salary. However, the Employee's Salary may not be decreased without the Employee's consent, other than as part of an across-the-board salary reduction that applies in the same manner to all senior executives.

3.2 Annual Performance-Based Bonuses.

3.2.1 Except as otherwise stated herein, Employee shall be eligible to receive annual performance-based short-term incentive bonuses (each a "**STIP Bonus**") of up to 50% of his then-current Salary, based upon achievement of specific performance milestones ("**Milestones**") established by the Compensation Committee of the Board ("**Committee**") in advance and at its discretion. The STIP Bonus shall be paid, at the Company's option, in cash or restricted stock units ("**RSUs**") under the Plan.

3.2.2 Except as otherwise stated herein, Employee shall be eligible to receive annual performance-based long-term incentive bonuses (each a "**LTIP Bonus**") of up to 100% of his then-current Salary, based upon achievement of Milestones established by the Committee in advance and at its discretion. The LTIP Bonus shall be paid in RSUs under the Plan.

3.2.3 Each RSU shall entitle the Employee to receive one (1) share of the Company's \$0.001 par value common stock ("**Common Stock**") based on satisfaction of the Milestones. Upon the Committee's determination of the satisfaction of the relevant Milestones for any annual STIP or LTIP Bonus, and the amount of STIP Bonus and LTIP Bonus earned, the Committee shall cause the Company to provide the Employee with an award of cash or RSUs, or a combination of both, in the case of the STIP Bonus and RSUs in the case of the LTIP Bonus. The number of RSUs to be awarded to the Employee shall be the dollar value of the STIP Bonus or LTIP Bonus to be paid in RSUs divided by the Fair Market Value (as such term is defined in the Plan) of one share of Common Stock as of the award date.

3.3 Benefits. Employee shall be entitled to the insurance and employee benefits set forth in the Employee Handbook and such other benefits that are made available generally to senior management of the Company ("**Benefits**"). The Company does not warrant that it will continue to offer the same or similar medical insurance benefits or other related Benefits in the future and reserves the right to modify, reduce, or eliminate benefits at its sole discretion subject to applicable law.

3.4 Expenses. The Employee is entitled to reimbursement for all reasonable and necessary out-of-pocket business, entertainment, and travel expenses incurred in connection with the performance of his duties hereunder in accordance with the Company's expense reimbursement policies and procedures.

3.5 Withholding. The Company has the right to withhold from any amount payable hereunder any Federal, state, and local taxes in order for the Company to satisfy any withholding tax obligation it may have under any applicable law or regulation. Further, the Employee shall make arrangements satisfactory to the Company to pay to the Company any federal, state or local income taxes required to be withheld with respect to any Incentive Awards. If the Employee shall fail to make such tax payments as are required, the Company shall, to the extent permitted by law, have the right to deduct from any payment of any kind otherwise due to the Employee any federal, state or local taxes of any kind required by law to be withheld with respect to any such Incentive Award.

3.6 Incentive Compensation Clawback. Notwithstanding any other provisions in this Agreement to the contrary, any (a) incentive-based compensation paid to Employee for meeting a financial reporting measure that is based on or derived from financial information or (b) other compensation paid to Employee under this Agreement or any other agreement or arrangement with the Company which is subject to recovery under any law, government regulation, or stock exchange listing requirement, will be subject to such deductions and clawback as may be required to be made pursuant to such law, government regulation, or NASDAQ listing requirement (or any policy adopted by the Company pursuant to any such law, government regulation or NASDAQ listing requirement).

3.7 Section 409A. It is intended that any amounts payable under this Agreement (including Section 3 and Section 5.4) and the Company's and Employee's exercise of authority or discretion hereunder shall be exempt from, or comply with, Section 409A of the Internal Revenue Code of 1986, as amended ("**Code**") , including the Treasury Regulations and other published guidance relating thereto (collectively, "**Code Section 409A**"), so as not to subject Employee to the payment of any interest or additional tax imposed under Code Section 409A. This Agreement shall be interpreted on a basis consistent with such intent. If any payments or benefits provided to Employee by the Company, either per this Agreement or otherwise, are non-qualified deferred compensation subject to, and not exempt from, Code Section 409A ("**Subject Payments**"), the following provisions shall apply to such payments and/or benefits:

3.7.1 For payments and benefits triggered by termination of employment, reference to Employee's "termination of employment" (and corollary terms) with the Company shall be construed to refer to Employee's "separation from service" from the Company (with such phrase determined under Treas. Reg. Section 1.409A-1(h), as uniformly applied by the Company) in tandem with the termination of his employment with the Company.

3.7.2 If Employee is deemed on the date of his "separation from service" to be a "specified employee" (within the meaning of Treas. Reg. Section 1.409A-1(i)), then with regard to any payment that is required to be delayed pursuant to Code Section 409A(a)(2)(B) (the "**Delayed Payments**"), such payment shall not be made prior to the earlier of (i) the first day of the seventh month following the date of his "separation from service" and (ii) the date of his death. The Delayed Payments shall be paid to Employee in a lump sum promptly following the date set forth in the preceding sentence. Any payments other than the Delayed Payments shall be paid in accordance with the normal payment dates specified herein. In no case will the delay of any of the Delayed Payments by the Company constitute a breach of the Company's obligations to Employee.

3.7.3 Employee's right to receive installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments.

3.7.4 Whenever a payment under this Agreement specifies a payment period with reference to a number of days, the actual date of payment within the specified period shall be within the sole discretion of the Company.

3.7.5 If the 60 day period following Employee's "separation from service" begins in one calendar year and ends in a second calendar year (a "**Crossover 60-Day Period**"), then any severance payments subject to Code Section 409A that would otherwise occur during the portion of the Crossover 60-Day Period that falls within the first year will be delayed and paid in a lump-sum upon the later of (i) January 1 of the calendar year following the calendar year in which Employee's "separation from service" occurs, and (ii) the date when the payment of severance payments would otherwise begin hereunder.

3.7.6 Notwithstanding any other provision of this Agreement to the contrary, in no event shall any Subject Payment be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

3.7.7 To the extent that any reimbursement or in-kind benefits are Subject Payments: (i) the amount eligible for reimbursement or in-kind benefit in one calendar year may not affect the amount eligible for reimbursement or in-kind benefit in any other calendar year (except that a plan providing medical or health benefits may impose a generally applicable limit on the amount that may be reimbursed or paid), (ii) the right to reimbursement or an in-kind benefit is not subject to liquidation or exchange for another benefit, and (iii) subject to any shorter time periods provided herein, any such reimbursement of an expense or in-kind benefit must be made on or before the last day of the calendar year following the calendar year in which the expense was incurred.

3.7.8 If an amendment of this Agreement is necessary in order for it to comply with Code Section 409A, Employee and the Company agree to negotiate in good faith to amend this Agreement in a manner that preserves the original intent of the parties hereto to the extent reasonably possible.

3.8 Limitation on Payments. In the event that the benefits provided for in this Agreement or otherwise payable to Employee (i) constitute “parachute payments” within the meaning of Section 280G of the Code, and (ii) would be subject to the excise tax imposed by Section 4999 of the Code (the “*Excise Tax*”), then Employee’s benefits under this Agreement shall be either (A) delivered, subject to any applicable tax or other withholdings, in full, or (B) delivered, subject to any applicable tax or other withholdings, to such lesser extent as would result in no portion of such benefits being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by Employee, on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under Section 4999 of the Code. Unless the Company and Employee otherwise agree in writing, any determination required under this Section shall be made in writing by an independent public accountant chosen by the Company (the “*Accountant*”), whose determination shall be conclusive and binding upon Employee and the Company for all purposes. For purposes of making the calculations required by this Section, the Accountant may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Section 280G and 4999 of the Code. The Company and Employee shall furnish to the Accountant such information and documents as the Accountant may reasonably request in order to make a determination under this Section. The Company shall bear all costs the Accountant may reasonably incur in connection with any calculations contemplated by this Section.

4. PROTECTION/NON-DISCLOSURE OF COMPANY CONFIDENTIAL INFORMATION AND TRADE SECRETS. Employee acknowledges having entered into that certain Confidential Information, Non-Disclosure, and Trade Secrets Agreement attached hereto as Exhibit A to this Agreement (“*Confidentiality Agreement*”) dated March 4, 2020 with the Company. Employee covenants and agrees to strictly comply with the terms of Confidentiality Agreement during the term of this Agreement and following the termination of his employment with the Company, as provided for in the Confidentiality Agreement.

5. TERMINATION. In accordance with Section 1, either party may terminate the employment relationship and this Agreement at any time and for any reason; provided that, unless otherwise provided herein, either party shall be required to give the other party at least 30 days advance written notice of any termination of the Employee’s employment. Notwithstanding the foregoing, the Company shall be entitled to terminate the Agreement for Cause immediately upon delivery of written notice.

5.1 Final Pay and Expenses. Upon the termination of employment, the Company shall pay Employee all Salary and unreimbursed expenses due through the date on which employment terminates.

5.2 Resignation of all Other Positions. Upon termination of employment, Employee shall be deemed to have resigned from all positions that the Employee holds as an officer, employee, or member of the Board (or a committee thereof) of the Company or any of its affiliates.

5.3 Return of Property. Upon termination of employment, Employee shall return all Company's property such as cell phones, laptops, or other tangible and intangible property including, without limitation, customer lists, manuals, contract forms, documents or any other tangible or intangible documents or information used by the Company in the Employee's possession at the time of termination, in a manner consistent with Company policy.

5.4 Severance on Termination

5.4.1 Absent a Change in Control. In addition to payments under Section 5.1 and subject to Section 5.4.3, if Employee's employment is terminated, either (i) by the Company (other than for Cause, Disability, or death), or (ii) by the Employee for Good Reason, then the Employee (or his estate or personal representative), shall be entitled to (a) equal installment payments of Employee's then-current Salary, less all federal and state withholding, for a period of 12 months, payable in accordance with the Company's normal payroll practices; (b) the Company's payment or reimbursement of Employee's Benefits in effect at the time of the Notice of Termination for a period of 12 months; and (c) a pro-rata percentage of Employee's STIP Bonus and LTIP Bonus, assuming the satisfaction of all Milestones, as contemplated by Section 3.2 for the calendar year in which the termination takes place, calculated based on the number of days of the calendar year that Employee was employed, and payable in accordance with the Company's normal practice for the payment of such bonuses.

5.4.2 Following a Change in Control. In addition to payments under Section 5.1 and subject to Section 5.4.3, if Employee's employment is terminated during the Protected Period following a Change in Control, either (i) by the Company (other than for Cause, Disability or death), or (ii) by the Employee for Good Reason:

5.4.2.1 the Employee (or his estate or personal representative): shall be entitled to (a) equal installment payments of Employee's then-current Salary, less all federal and state withholding, for a period of 18 months, payable in accordance with the Company's normal payroll practices; (b) the Company's payment or reimbursement of Employee's Benefits in effect at the time of the Notice of Termination for a period of 18 months; and (c) Employee's entire STIP Bonus and LTIP Bonus, assuming the satisfaction of all Milestones, as contemplated by Section 3.2 for the calendar year in which the termination takes place, multiplied by 1.5, and payable in accordance with the Company's normal practice for the payment of such bonuses.

5.4.2.2 all outstanding and unvested Incentive Awards held by Employee as of the Date of Termination shall vest in full; provided however, if an outstanding Incentive Award is subject to Code Section 409A, the acceleration of vesting will not change the time or form of payment in a manner that would violate Code Section 409A; if an outstanding Incentive Award is exempt from Code Section 409A, the Incentive Award will be administered in a manner that retains such exemption or otherwise complies with Code Section 409A. Any outstanding Incentive Awards held by the Employee as of the Date of Termination shall remain exercisable and subject to termination as provided in the Plan.

5.4.3 Conditions to Receiving Severance. The receipt of any severance pursuant to this Section is subject to: (a) Employee timely signing and not revoking prior to the expiration of any revocation rights afforded to Employee by applicable law a customary separation agreement and general release of claims in a form determined by and acceptable to the Company in its reasonable discretion ("**Release Agreement**") and (b) Employee's continued compliance with any obligations to the Company that survive termination of his employment, including the Confidentiality Agreement. The Company shall provide Employee with the Release Agreement on or around the Date of Termination, and Employee must deliver the executed Release Agreement to the Company within twenty-one (21) days (or, if greater, the minimum period required by applicable law) after receipt of the Release Agreement, failing which Employee will forfeit all rights to any portion of the severance provided pursuant to this Section. No severance will be paid or provided unless and until the Release Agreement becomes effective.

6. MISCELLANEOUS.

6.1 Notices. All notices, requests, demands and other communications called for under this Agreement shall be in writing and shall be delivered personally by hand or by courier, mailed by United States first-class mail, postage prepaid, or sent by electronic mail directed to the party to be notified at the address or electronic mail address indicated for such party:

If to Employee: Benjamin Taecker
505 Tranquil Dr.
Sparks, NV 89441
Email: ben_taecker@hotmail.com

If to Company: Aqua Metals, Inc.
5370 Kietzke Ln #201
Reno, Nevada 89511
Attn: Judd Merrill
Email: judd.merrill@aquametals.com

or at such other address or electronic mail address as such party may designate by written notice to the other party hereto. All such notices and other communications shall be deemed given upon personal delivery, three (3) days after the date of mailing, or upon confirmation of electronic mail.

6.2 Successors and Assigns. This Agreement shall inure to the benefit of, and be binding on Employee, his heirs, executors, and administrators and on the Company, its successors and assigns. This Agreement may be assigned at any time by Company to any related corporation or a successor corporation. In the event of such an assignment, the assignee corporation to which the Agreement is assigned shall automatically be substituted for the assignor Company for all intentions and purposes and to the same extent as if this assignee were the Company that had originally executed this Agreement. This is a personal contract and the Employee cannot assign or transfer all or any portion of the contract, except that in the event of the Employee's death, the compensation due and owing the Employee can be paid in accordance with any assignment of death benefits.

6.3 Waiver. The waiver by either party of a default or a breach of any provision of this Agreement by the other party shall not operate or be construed as a waiver of any subsequent default or breach.

6.4 Modifications. The provisions of this Agreement shall constitute the entire agreement between the parties, with respect to the specific terms set forth herein, and may only be modified by an agreement in writing signed by the party against whom enforcement is sought. Modifications to this Agreement do not change or alter the at-will status of the Employee.

6.5 Construction of Agreement. This Agreement shall be construed consistently with the terms and conditions of all other Company policies and procedures, which are referenced in this Agreement. If there is any conflict with the terms of this Agreement and Company policy or procedure, this Agreement shall control, to the maximum extent permitted by law.

6.6 Entire Agreement. Except as otherwise provided herein, this Agreement contains all of the understandings and representations between the Employee and the Company pertaining to the subject matter hereof, and supersedes any prior employment agreements (and amendments thereto) between the Employee and the Company, including without limitation, the Prior Agreement, the Change-of-Control Severance Agreement, dated April 15, 2019, and the Change-of-Control Severance Agreement, dated August 9, 2021. This Agreement will be interpreted independently of and does not modify or supersede any and all agreements executed by Employee pertaining to Incentive Awards (including but not limited to the Plan). Nothing in this Agreement shall be deemed to modify or supersede the Confidentiality Agreement or that certain Indemnification Agreement dated August 9, 2021 between Employee and the Company.

6.7 Attorneys' Fees. The prevailing party in any action brought to enforce this Agreement may recover reasonable attorneys' fees and costs including all costs and fees incurred in the preparation, trial and appeal of an action brought to enforce this Agreement.

6.8 Applicable Law. It is the intent of the parties that all provisions of this Agreement be enforced to the fullest extent permissible under the law and public policy of the state of Nevada.

6.9 Arbitration. The Parties hereby agree to waive their right to have any dispute, controversy, or claim (“**Claim**”) between them resolved in a court of law by a judge or jury, and agree that any and all Claims arising out of the terms and/or enforcement of this Agreement (excluding any Claim(s) that, as a matter of law, the Parties cannot be compelled to arbitrate under applicable federal, state, or local law) shall be subject to binding, individual arbitration enforceable under and governed by the Federal Arbitration Act, 9 U.S.C. § 1 et seq. (the “**FAA**”), to the exclusion of any state law inconsistent with the FAA, in Reno, Nevada before AAA, pursuant to the AAA Employment Arbitration Rules & Procedures, which (i) the Parties can obtain on the AAA website (<https://www.adr.org/employment>), and (ii) are incorporated herein by reference. The Parties intend and agree that (i) class action and representative action procedures are hereby waived and shall not be asserted, nor will they apply, in any arbitration pursuant to this Agreement; (ii) each Party agrees, to the fullest extent permitted under the law, that it will not assert class action or representative action Claims against the other Party in arbitration or otherwise; and (iii) the Parties shall only submit their own, individual Claims in arbitration and will not seek to represent the interests of any other person. The Company will pay all costs unique to arbitration, including the arbitrator’s fees and AAA administrative costs. The Parties are entitled to conduct adequate discovery in accordance with AAA Rules and the arbitrator shall have the authority to determine what constitutes adequate discovery. Neither Party shall be denied the right to file a pleading challenge or motion for summary disposition of a particular claim or issue. The arbitrator’s decision must be in a written reasoned opinion containing the arbitrator’s findings of fact and conclusions of law. Resolution of all disputes shall be based solely upon the law governing the claims and defenses pleaded, and the arbitrator may award only remedies that would have applied had the case been heard in court. Judgment may be entered on the arbitrator’s decision in any court with jurisdiction. The arbitrator may grant injunctions and other relief in Claims subject to arbitration pursuant to this Agreement. Notwithstanding the foregoing, either Party may seek injunctive relief (or any other provisional remedy) from any court having jurisdiction over the Parties and the subject matter of their Claim relating to this Agreement and any agreements incorporated herein by reference. The decision of the arbitrator shall be final, conclusive, and binding on the Parties. The Parties agree that that the prevailing party in any arbitration shall be entitled to injunctive relief in any court of competent jurisdiction to enforce the arbitration award.

6.10 Severability. If any section is determined by a court of law to be unenforceable, that section shall be severed from the Agreement and the balance of the Agreement shall be enforced according to its terms.

6.11 Survival. Upon the expiration or other termination of this Agreement, the respective rights and obligations of the parties hereto shall survive such expiration or other termination to the extent necessary to carry out the intentions of the parties under this Agreement, including but not limited to Employee’s obligations with respect to the Confidentiality Agreement.

7. **DEFINITIONS.** Capitalized terms used in this Agreement but not otherwise defined herein shall have the meaning hereby assigned to them as follows:

7.1 “**Cause**” has the meaning given to it in Section 2.3 of the Plan.

7.2 “**Change in Control**” has the meaning given to it in Section 2.4 of the Plan.

7.3 “**Date of Termination**” means the date the Employee’s employment is terminated by the Company without Cause or by the Employee with Good Reason, provided such termination constitutes a separation from service as defined in Section 409A of the U.S. Internal Revenue Code.

7.4 “**Disability**” has the meaning given to it in Section 2.8 of the Plan.

7.5 **“Good Reason”** means the continued occurrence of any of the following conditions without Employee’s consent after the Employee has given the Company written notice of such condition within thirty (30) days following the initial existence of the condition, and the Company has failed to cure such condition within thirty (30) days of the date it received notice of the condition: (i) a material reduction by the Company in the Employee’s then-current Salary (other than as permitted by Section 3.1); (ii) a material, adverse change in the Employee’s duties, authority, or responsibilities (other than temporarily while the Employee is physically or mentally incapacitated or as required by applicable law), taking into account the Company’s size, status as a public company, and capitalization as of the date of this Agreement, and unless such change in duties, authority, or responsibilities occurs in connection with Employee’s engagement in any action or any inaction that would otherwise enable the Company to terminate the Employee for Cause; or (iii) the unilateral relocation of the Employee’s principal location for performing services more than fifty (50) miles from the Employee’s work location. If the Employee does not terminate employment for Good Reason within 60 days after the first occurrence of the applicable grounds, then the Employee will be deemed to have waived the right to terminate for Good Reason with respect to such grounds.

7.6 **“Incentive Award”** has the meaning given to it in Section 2.13 of the Plan.

7.7 **“Notice of Termination”** refers to the date that either party provides notice to the other of their intention to terminate the Agreement and employment relationship.

7.8 **“Plan”** refers to the Company’s 2019 Stock Incentive Plan, as it may be amended from time to time, or any successor equity incentive plan.

7.9 **“Protected Period”** means the 12-month period immediately following a Change in Control.

8. **EMPLOYEE CERTIFICATION.** Employee hereby certifies that he has had an adequate opportunity to review and understands all the terms and conditions of this Agreement, and that he has had the opportunity to ask questions and consult with an attorney of his choosing before signing this Agreement.

[Signatures on next page]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of the day and year first above written.

EMPLOYEE

/s/ Benjamin Taecker
Benjamin Taecker

COMPANY
Aqua Metals, Inc.,
A Delaware corporation

By: /s/ Stephen Cotton
Stephen Cotton,
Chief Executive Officer

AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT

THIS AMENDED AND RESTATED EXECUTIVE EMPLOYMENT AGREEMENT is entered into effective as of August 7, 2023 between AQUA METALS, INC., a Delaware corporation (“*Company*”) and David McMurtry (“*Employee*”) (collectively, the “*Parties*,” and individually, a “*Party*”), and constitutes an amendment and restatement to that certain Executive Employment Agreement dated July 22, 2022, by and between the Company and Employee, as amended to date (the “*Prior Agreement*”). Effective as of the Effective Date, this Agreement hereby supersedes, replaces, amends, and restates the Prior Agreement.

RECITALS

WHEREAS, the Company and Employee entered into the Prior Agreement and now wish to continue their employment relationship on the following terms and conditions;

NOW, THEREFORE, in consideration of the mutual promises, covenants and conditions herein, the Parties agree as follows:

1. TERM. Employee acknowledges that he is not employed for a specific term but is an at-will employee who may resign at any time, with or without notice. Likewise, the Company may terminate the Employee’s employment at any time, with or without notice, and with or without cause or reason.

2. POSITION, DUTIES, AND OBLIGATIONS.

2.1 General. Company hereby employs Employee in accordance with the terms of this Agreement; the Third Amended and Restated Bylaws of the Company, as further amended from time to time (“*Bylaws*”); all the policies and procedures set forth in the Company’s employee handbook as in effect as of the date of this Agreement, and as it may be modified or amended in the future (“*Employee Handbook*”); and any other Company policies or procedures currently in effect or subsequently implemented.

2.2 Title and Duties. Employee shall be employed hereunder as Chief Business Officer of the Company. In such position, Employee shall serve as the principal business officer of the Company and the Company has the absolute right to assign Employee new or different job duties as deemed appropriate by the Company.

2.3 Work Location. Employee shall provide his services hereunder from the Company’s headquarters in Reno, Nevada and shall travel to the Company’s facilities in McCarran, Nevada as required, and may occasionally be required to travel on Company business.

2.4 Employee's Obligations. Employee covenants and agrees, as a condition of accepting or continuing employment with the Company, to all the terms and conditions in the operative Employee Handbook executed by Employee and all Company policies, procedures, and other agreements now in existence or hereafter implemented, including, without limitation, the duty to:

(a) Comply with all Company policies and procedures as set forth in the Employee Handbook, policy and procedure manuals, safety manuals, and other sources (as amended from time to time);

(b) Devote his full time and attention to meet the requirements set forth in the job description, the objectives or duties of which may change in the Company's discretion;

(c) Follow the direction and recommendations of the Board;

(d) Refrain from investing in any direct competitor of the Company, except that Employee may at any time own beneficially up to one (1%) of the stock of any competing corporation whose securities are listed on a national securities exchange or regularly traded in the national over-the-counter-market;

(e) Observe and comply at all times with the provisions of the Company's insider trading policy (as amended, from time to time) and with every rule of law and every regulation in force in relation to dealings in stock, shares, debentures or other securities of the Company (including in relation to unpublished price sensitive information affecting such securities), in whatever jurisdiction, and to observe and comply with all laws and regulations of any stock exchange, market or dealing system in which such dealings take place; and

(f) Refrain from directly or indirectly render any services of a business, commercial, or professional nature to any other person or organization, whether for compensation or otherwise, which would be in competition with the Company, or which would prevent Employee from rendering the agreed services to Company during the tenure of his employment.

3. COMPENSATION.

3.1 Salary. The Employee will be paid an annual salary of \$325,376.00, less state and federal withholding and authorized deductions ("**Salary**"), on a bi-weekly basis (or according to the Company's customary payroll practices in effect at the time). The Employee's Salary shall be reviewed at least annually by the Board and the Board may, but shall not be required to, increase the Employee's Salary. However, the Employee's Salary may not be decreased without the Employee's consent, other than as part of an across-the-board salary reduction that applies in the same manner to all senior executives.

3.2 Annual Performance-Based Bonuses.

3.2.1 Except as otherwise stated herein, Employee shall be eligible to receive annual performance-based short-term incentive bonuses (each a "**STIP Bonus**") of up to 50% of his then-current Salary, based upon achievement of specific performance milestones ("**Milestones**") established by the Compensation Committee of the Board ("**Committee**") in advance and at its discretion. The STIP Bonus shall be paid, at the Company's option, in cash or restricted stock units ("**RSUs**") under the Plan.

3.2.2 Except as otherwise stated herein, Employee shall be eligible to receive annual performance-based long-term incentive bonuses (each a "**LTIP Bonus**") of up to 100% of his then-current Salary, based upon achievement of Milestones established by the Committee in advance and at its discretion. The LTIP Bonus shall be paid in RSUs under the Plan.

3.2.3 Each RSU shall entitle the Employee to receive one (1) share of the Company's \$0.001 par value common stock ("**Common Stock**") based on satisfaction of the Milestones. Upon the Committee's determination of the satisfaction of the relevant Milestones for any annual STIP or LTIP Bonus, and the amount of STIP Bonus and LTIP Bonus earned, the Committee shall cause the Company to provide the Employee with an award of cash or RSUs, or a combination of both, in the case of the STIP Bonus and RSUs in the case of the LTIP Bonus. The number of RSUs to be awarded to the Employee shall be the dollar value of the STIP Bonus or LTIP Bonus to be paid in RSUs divided by the Fair Market Value (as such term is defined in the Plan) of one share of Common Stock as of the award date.

3.3 Benefits. Employee shall be entitled to the insurance and employee benefits set forth in the Employee Handbook and such other benefits that are made available generally to senior management of the Company ("**Benefits**"). The Company does not warrant that it will continue to offer the same or similar medical insurance benefits or other related Benefits in the future and reserves the right to modify, reduce, or eliminate benefits at its sole discretion subject to applicable law.

3.4 Expenses. The Employee is entitled to reimbursement for all reasonable and necessary out-of-pocket business, entertainment, and travel expenses incurred in connection with the performance of his duties hereunder in accordance with the Company's expense reimbursement policies and procedures.

3.5 Withholding. The Company has the right to withhold from any amount payable hereunder any Federal, state, and local taxes in order for the Company to satisfy any withholding tax obligation it may have under any applicable law or regulation. Further, the Employee shall make arrangements satisfactory to the Company to pay to the Company any federal, state or local income taxes required to be withheld with respect to any Incentive Awards. If the Employee shall fail to make such tax payments as are required, the Company shall, to the extent permitted by law, have the right to deduct from any payment of any kind otherwise due to the Employee any federal, state or local taxes of any kind required by law to be withheld with respect to any such Incentive Award.

3.6 Incentive Compensation Clawback. Notwithstanding any other provisions in this Agreement to the contrary, any (a) incentive-based compensation paid to Employee for meeting a financial reporting measure that is based on or derived from financial information or (b) other compensation paid to Employee under this Agreement or any other agreement or arrangement with the Company which is subject to recovery under any law, government regulation, or stock exchange listing requirement, will be subject to such deductions and clawback as may be required to be made pursuant to such law, government regulation, or NASDAQ listing requirement (or any policy adopted by the Company pursuant to any such law, government regulation or NASDAQ listing requirement).

3.7 Section 409A. It is intended that any amounts payable under this Agreement (including [Section 3](#) and [Section 5.4](#)) and the Company's and Employee's exercise of authority or discretion hereunder shall be exempt from, or comply with, Section 409A of the Internal Revenue Code of 1986, as amended ("**Code**") , including the Treasury Regulations and other published guidance relating thereto (collectively, "**Code Section 409A**"), so as not to subject Employee to the payment of any interest or additional tax imposed under Code Section 409A. This Agreement shall be interpreted on a basis consistent with such intent. If any payments or benefits provided to Employee by the Company, either per this Agreement or otherwise, are non-qualified deferred compensation subject to, and not exempt from, Code Section 409A ("**Subject Payments**"), the following provisions shall apply to such payments and/or benefits:

3.7.1 For payments and benefits triggered by termination of employment, reference to Employee's "termination of employment" (and corollary terms) with the Company shall be construed to refer to Employee's "separation from service" from the Company (with such phrase determined under Treas. Reg. Section 1.409A-1(h), as uniformly applied by the Company) in tandem with the termination of his employment with the Company.

3.7.2 If Employee is deemed on the date of his "separation from service" to be a "specified employee" (within the meaning of Treas. Reg. Section 1.409A-1(i)), then with regard to any payment that is required to be delayed pursuant to Code Section 409A(a)(2)(B) (the "**Delayed Payments**"), such payment shall not be made prior to the earlier of (i) the first day of the seventh month following the date of his "separation from service" and (ii) the date of his death. The Delayed Payments shall be paid to Employee in a lump sum promptly following the date set forth in the preceding sentence. Any payments other than the Delayed Payments shall be paid in accordance with the normal payment dates specified herein. In no case will the delay of any of the Delayed Payments by the Company constitute a breach of the Company's obligations to Employee.

3.7.3 Employee's right to receive installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments.

3.7.4 Whenever a payment under this Agreement specifies a payment period with reference to a number of days, the actual date of payment within the specified period shall be within the sole discretion of the Company.

3.7.5 If the 60 day period following Employee's "separation from service" begins in one calendar year and ends in a second calendar year (a "**Crossover 60-Day Period**"), then any severance payments subject to Code Section 409A that would otherwise occur during the portion of the Crossover 60-Day Period that falls within the first year will be delayed and paid in a lump-sum upon the later of (i) January 1 of the calendar year following the calendar year in which Employee's "separation from service" occurs, and (ii) the date when the payment of severance payments would otherwise begin hereunder.

3.7.6 Notwithstanding any other provision of this Agreement to the contrary, in no event shall any Subject Payment be subject to offset by any other amount unless otherwise permitted by Code Section 409A.

3.7.7 To the extent that any reimbursement or in-kind benefits are Subject Payments: (i) the amount eligible for reimbursement or in-kind benefit in one calendar year may not affect the amount eligible for reimbursement or in-kind benefit in any other calendar year (except that a plan providing medical or health benefits may impose a generally applicable limit on the amount that may be reimbursed or paid), (ii) the right to reimbursement or an in-kind benefit is not subject to liquidation or exchange for another benefit, and (iii) subject to any shorter time periods provided herein, any such reimbursement of an expense or in-kind benefit must be made on or before the last day of the calendar year following the calendar year in which the expense was incurred.

3.7.8 If an amendment of this Agreement is necessary in order for it to comply with Code Section 409A, Employee and the Company agree to negotiate in good faith to amend this Agreement in a manner that preserves the original intent of the parties hereto to the extent reasonably possible.

3.8 Limitation on Payments. In the event that the benefits provided for in this Agreement or otherwise payable to Employee (i) constitute “parachute payments” within the meaning of Section 280G of the Code, and (ii) would be subject to the excise tax imposed by Section 4999 of the Code (the “*Excise Tax*”), then Employee’s benefits under this Agreement shall be either (A) delivered, subject to any applicable tax or other withholdings, in full, or (B) delivered, subject to any applicable tax or other withholdings, to such lesser extent as would result in no portion of such benefits being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by Employee, on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under Section 4999 of the Code. Unless the Company and Employee otherwise agree in writing, any determination required under this Section shall be made in writing by an independent public accountant chosen by the Company (the “*Accountant*”), whose determination shall be conclusive and binding upon Employee and the Company for all purposes. For purposes of making the calculations required by this Section, the Accountant may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Section 280G and 4999 of the Code. The Company and Employee shall furnish to the Accountant such information and documents as the Accountant may reasonably request in order to make a determination under this Section. The Company shall bear all costs the Accountant may reasonably incur in connection with any calculations contemplated by this Section.

4. PROTECTION/NON-DISCLOSURE OF COMPANY CONFIDENTIAL INFORMATION AND TRADE SECRETS. Employee acknowledges having entered into that certain Confidential Information, Non-Disclosure, and Trade Secrets Agreement attached hereto as Exhibit A to this Agreement (“*Confidentiality Agreement*”) dated August 10, 2022 with the Company. Employee covenants and agrees to strictly comply with the terms of Confidentiality Agreement during the term of this Agreement and following the termination of his employment with the Company, as provided for in the Confidentiality Agreement.

5. TERMINATION. In accordance with Section 1, either party may terminate the employment relationship and this Agreement at any time and for any reason; provided that, unless otherwise provided herein, either party shall be required to give the other party at least 30 days advance written notice of any termination of the Employee’s employment. Notwithstanding the foregoing, the Company shall be entitled to terminate the Agreement for Cause immediately upon delivery of written notice.

5.1 Final Pay and Expenses. Upon the termination of employment, the Company shall pay Employee all Salary and unreimbursed expenses due through the date on which employment terminates.

5.2 Resignation of all Other Positions. Upon termination of employment, Employee shall be deemed to have resigned from all positions that the Employee holds as an officer, employee, or member of the Board (or a committee thereof) of the Company or any of its affiliates.

5.3 Return of Property. Upon termination of employment, Employee shall return all Company's property such as cell phones, laptops, or other tangible and intangible property including, without limitation, customer lists, manuals, contract forms, documents or any other tangible or intangible documents or information used by the Company in the Employee's possession at the time of termination, in a manner consistent with Company policy.

5.4 Severance on Termination

5.4.1 Absent a Change in Control. In addition to payments under Section 5.1 and subject to Section 5.4.3, if Employee's employment is terminated, either (i) by the Company (other than for Cause, Disability, or death), or (ii) by the Employee for Good Reason, then the Employee (or his estate or personal representative), shall be entitled to (a) equal installment payments of Employee's then-current Salary, less all federal and state withholding, for a period of 12 months, payable in accordance with the Company's normal payroll practices; (b) the Company's payment or reimbursement of Employee's Benefits in effect at the time of the Notice of Termination for a period of 12 months; and (c) a pro-rata percentage of Employee's STIP Bonus and LTIP Bonus, assuming the satisfaction of all Milestones, as contemplated by Section 3.2 for the calendar year in which the termination takes place, calculated based on the number of days of the calendar year that Employee was employed, and payable in accordance with the Company's normal practice for the payment of such bonuses.

5.4.2 Following a Change in Control. In addition to payments under Section 5.1 and subject to Section 5.4.3, if Employee's employment is terminated during the Protected Period following a Change in Control, either (i) by the Company (other than for Cause, Disability or death), or (ii) by the Employee for Good Reason:

5.4.2.1 the Employee (or his estate or personal representative): shall be entitled to (a) equal installment payments of Employee's then-current Salary, less all federal and state withholding, for a period of 18 months, payable in accordance with the Company's normal payroll practices; (b) the Company's payment or reimbursement of Employee's Benefits in effect at the time of the Notice of Termination for a period of 18 months; and (c) Employee's entire STIP Bonus and LTIP Bonus, assuming the satisfaction of all Milestones, as contemplated by Section 3.2 for the calendar year in which the termination takes place, multiplied by 1.5, and payable in accordance with the Company's normal practice for the payment of such bonuses.

5.4.2.2 all outstanding and unvested Incentive Awards held by Employee as of the Date of Termination shall vest in full; provided however, if an outstanding Incentive Award is subject to Code Section 409A, the acceleration of vesting will not change the time or form of payment in a manner that would violate Code Section 409A; if an outstanding Incentive Award is exempt from Code Section 409A, the Incentive Award will be administered in a manner that retains such exemption or otherwise complies with Code Section 409A. Any outstanding Incentive Awards held by the Employee as of the Date of Termination shall remain exercisable and subject to termination as provided in the Plan.

5.4.3 Conditions to Receiving Severance. The receipt of any severance pursuant to this Section is subject to: (a) Employee timely signing and not revoking prior to the expiration of any revocation rights afforded to Employee by applicable law a customary separation agreement and general release of claims in a form determined by and acceptable to the Company in its reasonable discretion ("**Release Agreement**") and (b) Employee's continued compliance with any obligations to the Company that survive termination of his employment, including the Confidentiality Agreement. The Company shall provide Employee with the Release Agreement on or around the Date of Termination, and Employee must deliver the executed Release Agreement to the Company within twenty-one (21) days (or, if greater, the minimum period required by applicable law) after receipt of the Release Agreement, failing which Employee will forfeit all rights to any portion of the severance provided pursuant to this Section. No severance will be paid or provided unless and until the Release Agreement becomes effective.

6. MISCELLANEOUS.

6.1 Notices. All notices, requests, demands and other communications called for under this Agreement shall be in writing and shall be delivered personally by hand or by courier, mailed by United States first-class mail, postage prepaid, or sent by electronic mail directed to the party to be notified at the address or electronic mail address indicated for such party:

If to Employee: David McMurtry
328 Jerome Ave
Piedmont, CA 94610
Email: dave.mcmurtry@gmail.com

If to Company: Aqua Metals, Inc.
5370 Kietzke Ln #201
Reno, Nevada 89511
Attn: Judd Merrill
Email: judd.merrill@aquametals.com

or at such other address or electronic mail address as such party may designate by written notice to the other party hereto. All such notices and other communications shall be deemed given upon personal delivery, three (3) days after the date of mailing, or upon confirmation of electronic mail.

6.2 Successors and Assigns. This Agreement shall inure to the benefit of, and be binding on Employee, his heirs, executors, and administrators and on the Company, its successors and assigns. This Agreement may be assigned at any time by Company to any related corporation or a successor corporation. In the event of such an assignment, the assignee corporation to which the Agreement is assigned shall automatically be substituted for the assignor Company for all intentions and purposes and to the same extent as if this assignee were the Company that had originally executed this Agreement. This is a personal contract and the Employee cannot assign or transfer all or any portion of the contract, except that in the event of the Employee's death, the compensation due and owing the Employee can be paid in accordance with any assignment of death benefits.

6.3 Waiver. The waiver by either party of a default or a breach of any provision of this Agreement by the other party shall not operate or be construed as a waiver of any subsequent default or breach.

6.4 Modifications. The provisions of this Agreement shall constitute the entire agreement between the parties, with respect to the specific terms set forth herein, and may only be modified by an agreement in writing signed by the party against whom enforcement is sought. Modifications to this Agreement do not change or alter the at-will status of the Employee.

6.5 Construction of Agreement. This Agreement shall be construed consistently with the terms and conditions of all other Company policies and procedures, which are referenced in this Agreement. If there is any conflict with the terms of this Agreement and Company policy or procedure, this Agreement shall control, to the maximum extent permitted by law.

6.6 Entire Agreement. Except as otherwise provided herein, this Agreement contains all of the understandings and representations between the Employee and the Company pertaining to the subject matter hereof, and supersedes any prior employment agreements (and amendments thereto) between the Employee and the Company, including without limitation, the Prior Agreement and Change-of-Control Severance Agreement dated July 22, 2022. This Agreement will be interpreted independently of and does not modify or supersede any and all agreements executed by Employee pertaining to Incentive Awards (including but not limited to the Plan). Nothing in this Agreement shall be deemed to modify or supersede the Confidentiality Agreement or that certain Indemnification Agreement dated August 3, 2023 between Employee and the Company

6.7 Attorneys' Fees. The prevailing party in any action brought to enforce this Agreement may recover reasonable attorneys' fees and costs including all costs and fees incurred in the preparation, trial and appeal of an action brought to enforce this Agreement.

6.8 Applicable Law. It is the intent of the parties that all provisions of this Agreement be enforced to the fullest extent permissible under the law and public policy of the state of Nevada.

6.9 Arbitration. The Parties hereby agree to waive their right to have any dispute, controversy, or claim (“*Claim*”) between them resolved in a court of law by a judge or jury, and agree that any and all Claims arising out of the terms and/or enforcement of this Agreement (excluding any Claim(s) that, as a matter of law, the Parties cannot be compelled to arbitrate under applicable federal, state, or local law) shall be subject to binding, individual arbitration enforceable under and governed by the Federal Arbitration Act, 9 U.S.C. § 1 et seq. (the “*FAA*”), to the exclusion of any state law inconsistent with the FAA, in Reno, Nevada before AAA, pursuant to the AAA Employment Arbitration Rules & Procedures, which (i) the Parties can obtain on the AAA website (<https://www.adr.org/employment>), and (ii) are incorporated herein by reference. The Parties intend and agree that (i) class action and representative action procedures are hereby waived and shall not be asserted, nor will they apply, in any arbitration pursuant to this Agreement; (ii) each Party agrees, to the fullest extent permitted under the law, that it will not assert class action or representative action Claims against the other Party in arbitration or otherwise; and (iii) the Parties shall only submit their own, individual Claims in arbitration and will not seek to represent the interests of any other person. The Company will pay all costs unique to arbitration, including the arbitrator’s fees and AAA administrative costs. The Parties are entitled to conduct adequate discovery in accordance with AAA Rules and the arbitrator shall have the authority to determine what constitutes adequate discovery. Neither Party shall be denied the right to file a pleading challenge or motion for summary disposition of a particular claim or issue. The arbitrator’s decision must be in a written reasoned opinion containing the arbitrator’s findings of fact and conclusions of law. Resolution of all disputes shall be based solely upon the law governing the claims and defenses pleaded, and the arbitrator may award only remedies that would have applied had the case been heard in court. Judgment may be entered on the arbitrator’s decision in any court with jurisdiction. The arbitrator may grant injunctions and other relief in Claims subject to arbitration pursuant to this Agreement. Notwithstanding the foregoing, either Party may seek injunctive relief (or any other provisional remedy) from any court having jurisdiction over the Parties and the subject matter of their Claim relating to this Agreement and any agreements incorporated herein by reference. The decision of the arbitrator shall be final, conclusive, and binding on the Parties. The Parties agree that that the prevailing party in any arbitration shall be entitled to injunctive relief in any court of competent jurisdiction to enforce the arbitration award.

6.10 Severability. If any section is determined by a court of law to be unenforceable, that section shall be severed from the Agreement and the balance of the Agreement shall be enforced according to its terms.

6.11 Survival. Upon the expiration or other termination of this Agreement, the respective rights and obligations of the parties hereto shall survive such expiration or other termination to the extent necessary to carry out the intentions of the parties under this Agreement, including but not limited to Employee’s obligations with respect to the Confidentiality Agreement.

7. DEFINITIONS. Capitalized terms used in this Agreement but not otherwise defined herein shall have the meaning hereby assigned to them as follows:

7.1 “Cause” has the meaning given to it in Section 2.3 of the Plan.

7.2 “Change in Control” has the meaning given to it in Section 2.4 of the Plan.

7.3 “Date of Termination” means the date the Employee’s employment is terminated by the Company without Cause or by the Employee with Good Reason, provided such termination constitutes a separation from service as defined in Section 409A of the U.S. Internal Revenue Code.

7.4 “**Disability**” has the meaning given to it in Section 2.8 of the Plan.

7.5 “**Good Reason**” means the continued occurrence of any of the following conditions without Employee’s consent after the Employee has given the Company written notice of such condition within thirty (30) days following the initial existence of the condition, and the Company has failed to cure such condition within thirty (30) days of the date it received notice of the condition: (i) a material reduction by the Company in the Employee’s then-current Salary (other than as permitted by Section 3.1); (ii) a material, adverse change in the Employee’s duties, authority, or responsibilities (other than temporarily while the Employee is physically or mentally incapacitated or as required by applicable law), taking into account the Company’s size, status as a public company, and capitalization as of the date of this Agreement, and unless such change in duties, authority, or responsibilities occurs in connection with Employee’s engagement in any action or any inaction that would otherwise enable the Company to terminate the Employee for Cause; or (iii) the unilateral relocation of the Employee’s principal location for performing services more than fifty (50) miles from the Employee’s work location. If the Employee does not terminate employment for Good Reason within 60 days after the first occurrence of the applicable grounds, then the Employee will be deemed to have waived the right to terminate for Good Reason with respect to such grounds.

7.6 “**Incentive Award**” has the meaning given to it in Section 2.13 of the Plan.

7.7 “**Notice of Termination**” refers to the date that either party provides notice to the other of their intention to terminate the Agreement and employment relationship.

7.8 “**Plan**” refers to the Company’s 2019 Stock Incentive Plan, as it may be amended from time to time, or any successor equity incentive plan.

7.9 “**Protected Period**” means the 12-month period immediately following a Change in Control.

8. **EMPLOYEE CERTIFICATION.** Employee hereby certifies that he has had an adequate opportunity to review and understands all the terms and conditions of this Agreement, and that he has had the opportunity to ask questions and consult with an attorney of his choosing before signing this Agreement.

[Signatures on next page]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of the day and year first above written.

EMPLOYEE

/s/ David McMurtry

David McMurtry

COMPANY

Aqua Metals, Inc.,
A Delaware corporation

By: */s/ Stephen Cotton*

Stephen Cotton,
Chief Executive Officer

The following are the wholly-owned subsidiaries of Aqua Metals, Inc.:

Aqua Metals Reno, Inc., a Delaware Corporation

Aqua Metals Operations, Inc., a Delaware Corporation

Aqua Metals Waltham 1, LLC, a Nevada limited liability company

Aqua Metals Waltham Holding, LLC, a Nevada limited liability company

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and
Stockholders of Aqua Metals, Inc. and Subsidiaries:

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-211810, 333-218709, 333-220171, 333-232148 and 333-248112) and Form S-3 (Nos. 333-212808, 333-213501, 333-216250, 333-231355 and 333-235238) of Aqua Metals, Inc. of our report dated March 9, 2023 relating to the consolidated financial statements appearing in this Form 10-K for the year ended December 31, 2022.

/s/ Armanino LLP

San Ramon, CA
March 9, 2023

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-211810, 333-218709, 333-220171, 333-232148 and 333-248112) and Form S-8 (Nos. 333-212808, 333-213501, 333-216250, 333-231355 and 333-235238) of Aqua Metals, Inc. (the "Company"), of our report dated March 28, 2023, with respect to the consolidated financial statements of the Company, included in this Annual Report on Form 10-K for the year ended December 31, 2023. Our report contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ FORVIS, LLP

New York, New York
March 28, 2024

CERTIFICATIONS

I, Stephen Cotton, certify that:

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

AQUA METALS, INC.

Date: March 28, 2024

By: /s/ Stephen Cotton
Stephen Cotton, Chief Executive Officer

CERTIFICATIONS

I, Judd Merrill, certify that:

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

AQUA METALS, INC.

Date: March 28, 2024

By: /s/ Judd Merrill
Judd Merrill, Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. ss.1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Aqua Metals, Inc. (the "Company") on Form 10-K for the period ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Stephen Cotton, the Chief Executive Officer, and Judd Merrill, the Chief Financial Officer, of the Company, respectively, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

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

By: /s/ Stephen Cotton Dated: March 28, 2024
Stephen Cotton

Title: Chief Executive Officer
(Principal Executive Officer)

By: /s/ Judd Merrill Dated: March 28, 2024
Judd Merrill

Title: Chief Financial Officer
(Principal Financial and Accounting Officer)

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

AQUA METALS, INC.

Executive Officer Clawback Policy

Approved by the Board of Directors on November 9, 2023 (the "Adoption Date")

I. Purpose

This Executive Officer Clawback Policy describes the circumstances under which Covered Persons of Aqua Metals, Inc., a Delaware corporation and any of its direct or indirect subsidiaries (the "**Company**") will be required to repay or return Erroneously-Awarded Compensation to the Company.

This Policy and any terms used in this Policy shall be construed in accordance with any SEC regulations promulgated to comply with Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the rules adopted by the Nasdaq.

Each Covered Person of the Company shall sign an Acknowledgement and Agreement to the Clawback Policy in the form attached hereto as Exhibit A as a condition to his or her participation in any of the Company's incentive-based compensation programs.

II. Definitions

For purposes of this Policy, the following capitalized terms shall have the meaning set forth below:

- (a) "**Accounting Restatement**" shall mean an accounting restatement (i) due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial restatements that is material to the previously issued financial statements (a "Big R" restatement), or (ii) that corrects an error that is not material to previously issued financial statements, but would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period (a "little r" restatement).
- (b) "**Board**" shall mean the Board of Directors of the Company.
- (c) "**Clawback-Eligible Incentive Compensation**" shall mean, in connection with an Accounting Restatement, any Incentive-Based Compensation Received by a Covered Person (regardless of whether such Covered Person was serving at the time that Erroneously-Awarded Compensation is required to be repaid) (i) on or after the Nasdaq Effective Date, (ii) after beginning service as a Covered Person, (iii) while the Company has a class of securities listed on a national securities exchange or national securities association and (iv) during the Clawback Period.
- (d) "**Clawback Period**" shall mean, with respect to any Accounting Restatement, the three completed fiscal years immediately preceding the Restatement Date and any transition period (that results from a change in the Company's fiscal year) of less than nine months within or immediately following those three completed fiscal years.

- (e) “**Committee**” shall mean the Compensation Committee of the Board.¹
- (f) “**Covered Person**” shall mean any person who is, or was at any time, during the Clawback Period, an Executive Officer of the Company. For the avoidance of doubt, Covered Person may include a former Executive Officer that left the Company, retired or transitioned to an employee role (including after serving as an Executive Officer in an interim capacity) during the Clawback Period.
- (g) “**Erroneously-Awarded Compensation**” shall mean the amount of Clawback-Eligible Incentive Compensation that exceeds the amount of Incentive-Based Compensation that otherwise would have been Received had it been determined based on the restated amounts. This amount must be computed without regard to any taxes paid.
- (h) “**Executive Officer**”² shall mean the Company’s president, principal financial officer, principal accounting officer (or if there is no such accounting officer, the controller), any vice-president in charge of a principal business unit, division, or function (such as sales, administration, or finance), any other officer who performs a policy-making function, or any other person (including an officer of the Company’s parent(s) or subsidiaries) who performs similar policy-making functions for the Company. For the sake of clarity, at a minimum, all persons who would be executive officers pursuant to Rule 401(b) under Regulation S-K shall be deemed “Executive Officers”.
- (i) “**Financial Reporting Measures**” shall mean measures that are determined and presented in accordance with the accounting principles used in preparing the Company’s financial statements, and all other measures that are derived wholly or in part from such measures. For purposes of this Policy, Financial Reporting Measures shall include stock price and total shareholder return (and any measures that are derived wholly or in part from stock price or total shareholder return).
- (j) “**Incentive-Based Compensation**” shall have the meaning set forth in Section III below.
- (k) “**Nasdaq**” shall mean The Nasdaq Stock Market.
- (l) “**Nasdaq Effective Date**” shall mean October 2, 2023.³
- (m) “**Policy**” shall mean this Executive Officer Clawback Policy, as the same may be amended and/or restated from time to time.
- (n) “**Received**” shall mean Incentive-Based Compensation received, or deemed to be received, in the Company’s fiscal period during which the Financial Reporting Measure specified in the Incentive-Based Compensation is attained, even if the payment or grant occurs after the fiscal period.
- (o) “**Repayment Agreement**” shall have the meaning set forth in Section V below.

¹ NTD: We recommend that this Policy be administered in the same manner as compensation is approved for executive officers. Since the Company’s Charter says that the Compensation Committee approves executive officer compensation, we believe the Compensation Committee should administer and enforce this Policy.

² NTD: This definition is the same definition used to define those officers to be disclosed in the Annual Report on Form 10-K and required to file Section 16 beneficial ownership reports. The adoption of this Policy may be a good opportunity for the Board to revisit who qualifies under this definition.

³ NTD: This is the effective time per the amended final listing exchange rules, not the Adoption Date of this Policy. Note that the Company will be required to adopt its clawback policy no later than December 1, 2023.

- (p) “**Restatement Date**” shall mean the earlier of (i) the date the Board, a committee of the Board or the officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement, or (ii) the date that a court, regulator or other legally authorized body directs the Company to prepare an Accounting Restatement.
- (q) “**SARs**” shall mean stock appreciation rights.
- (r) “**SEC**” shall mean the U.S. Securities and Exchange Commission.

III. Incentive-Based Compensation

“**Incentive-Based Compensation**” shall mean any compensation that is granted, earned or vested wholly or in part upon the attainment of a Financial Reporting Measure.

For purposes of this Policy, specific examples of Incentive-Based Compensation include, but are not limited to⁴:

- Non-equity incentive plan awards that are earned based, wholly or in part, based on satisfaction of a Financial Reporting Measure performance goal;
- Bonuses paid from a “bonus pool,” the size of which is determined, wholly or in part, based on satisfaction of a Financial Reporting Measure performance goal;
- Other cash awards based on satisfaction of a Financial Reporting Measure performance goal;
- Restricted stock, restricted stock units, performance share units, stock options and SARs that are granted or become vested, wholly or in part, on satisfaction of a Financial Reporting Measure performance goal; and
- Proceeds received upon the sale of shares acquired through an incentive plan that were granted or vested based, wholly or in part, on satisfaction of a Financial Reporting Measure performance goal.

For purposes of this Policy, Incentive-Based Compensation excludes⁵:

- Any base salaries (except with respect to any salary increases earned, wholly or in part, based on satisfaction of a Financial Reporting Measure performance goal);
- Bonuses paid solely at the discretion of the Committee or Board that are not paid from a “bonus pool” that is determined by satisfying a Financial Reporting Measure performance goal;
- Bonuses paid solely upon satisfying one or more subjective standards and/or completion of a specified employment period;
- Non-equity incentive plan awards earned solely upon satisfying one or more strategic measures or operational measures; and
- Equity awards that vest solely based on the passage of time and/or satisfaction of one or more non-Financial Reporting Measures.

⁴ These examples are taken from the SEC’s adopting release of Rule 10D-1.

⁵ These examples are also taken from the SEC’s adopting release of Rule 10D-1

IV. Determination and Calculation of Erroneously-Awarded Compensation

In the event of an Accounting Restatement, the Committee shall promptly determine the amount of any Erroneously-Awarded Compensation for each Executive Officer in connection with such Accounting Restatement and shall promptly⁶ thereafter provide each Executive Officer with a written notice containing the amount of Erroneously-Awarded Compensation and a demand for repayment or return, as applicable.

- (a) **Cash Awards**. With respect to cash awards, the Erroneously-Awarded Compensation is the difference between the amount of the cash award (whether payable as a lump sum or over time) that was Received and the amount that should have been received applying the restated Financial Reporting Measure.
- (b) **Cash Awards Paid From Bonus Pools**. With respect to cash awards paid from bonus pools, the Erroneously-Awarded Compensation is the pro rata portion of any deficiency that results from the aggregate bonus pool that is reduced based on applying the restated Financial Reporting Measure.
- (c) **Equity Awards**. With respect to equity awards, if the shares, options or SARs are still held at the time of recovery, the Erroneously-Awarded Compensation is the number of such securities Received in excess of the number that should have been received applying the restated Financial Reporting Measure (or the value in excess of that number). If the options or SARs have been exercised, but the underlying shares have not been sold, the Erroneously-Awarded Compensation is the number of shares underlying the excess options or SARs (or the value thereof). If the underlying shares have already been sold, then the Committee shall determine the amount which most reasonably estimates the Erroneously-Awarded Compensation.⁷
- (d) **Compensation Based on Stock Price or Total Shareholder Return**. For Incentive-Based Compensation based on (or derived from) stock price or total shareholder return, where the amount of Erroneously-Awarded Compensation is not subject to mathematical recalculation directly from the information in the applicable Accounting Restatement, the amount shall be determined by the Committee based on a reasonable estimate of the effect of the Accounting Restatement on the stock price or total shareholder return upon which the Incentive-Based Compensation was Received (in which case, the Committee shall maintain documentation of such determination of that reasonable estimate and provide such documentation to the Nasdaq in accordance with applicable listing standards).

V. Recovery of Erroneously-Awarded Compensation

Once the Committee has determined the amount of Erroneously-Awarded Compensation recoverable from the applicable Covered Person, the Committee shall take all necessary actions to recover the Erroneously-Awarded Compensation. Unless otherwise determined by the Committee, the Committee shall pursue the recovery of Erroneously-Awarded Compensation in accordance with the below⁸:

- (a) **Cash Awards**. With respect to cash awards, the Committee shall either (i) require the Covered Person to repay the Erroneously-Awarded Compensation in a lump sum in cash (or such property as the Committee agrees to accept with a value equal to such Erroneously-Awarded Compensation) reasonably promptly following the Restatement Date or (ii) if approved by the Committee, offer to enter into a Repayment Agreement. If the Covered Person accepts such offer and signs the Repayment Agreement within a reasonable time as determined by the Committee, the Company shall countersign such Repayment Agreement.

⁶ NTD: The final SEC rule requires the Company to recover the Erroneously-Awarded Compensation “reasonably promptly.” Consider whether to include a more specific time frame.

⁷ NTD: Neither the final SEC rule nor the listing standards provide guidance as to how the Company should determine Erroneously-Awarded Compensation if the underlying shares have been sold. Companies can adopt a policy that specifies how the Company intends to calculate the value of the Erroneously-Awarded Compensation, for example, “if the underlying shares have been sold, the Erroneously-Awarded Compensation is the higher of the value of the stock upon vesting, exercise or sale.” Consequently, the Company can leave the policy open for interpretation at the time of any Accounting Restatement or prescribe the guidelines in this Policy.

⁸ NTD: The final SEC rule requires the Company to recover the Erroneously-Awarded Compensation “reasonably promptly.” Consider whether to include a more specific time frame or outside date (e.g., require repayment within 120 days, or entry into repayment plan within 30 days).

- (b) **Unvested Equity Awards.** With respect to those equity awards that have not yet vested, the Committee shall take all necessary action to cancel, or otherwise cause to be forfeited, the awards in the amount of the Erroneously-Awarded Compensation.
- (c) **Vested Equity Awards.** With respect to those equity awards that have vested and the underlying shares have not been sold, the Committee shall take all necessary action to cause the Covered Person to deliver and surrender the underlying shares in the amount of the Erroneously-Awarded Compensation.

In the event that the Covered Person has sold the underlying shares, the Committee shall either (i) require the Covered Person to repay the Erroneously-Awarded Compensation in a lump sum in cash (or such property as the Committee agrees to accept with a value equal to such Erroneously-Awarded Compensation) reasonably promptly following the Restatement Date or (ii) if approved by the Committee, offer to enter into a Repayment Agreement. If the Covered Person accepts such offer and signs the Repayment Agreement within a reasonable time as determined by the Committee, the Company shall countersign such Repayment Agreement.

- (d) **Repayment Agreement.** “Repayment Agreement” shall mean an agreement (in a form reasonably acceptable to the Committee) with the Covered Person for the repayment of the Erroneously-Awarded Compensation as promptly as possible without unreasonable economic hardship to the Covered Person.
- (e) **Effect of Non-Repayment.** To the extent that a Covered Person fails to repay all Erroneously-Awarded Compensation to the Company when due (as determined in accordance with this Policy), the Company shall, or shall cause one or more other members of the Company to, take all actions reasonable and appropriate to recover such Erroneously-Awarded Compensation from the applicable Covered Person. [The applicable Covered Person shall be required to reimburse the Company for any and all expenses reasonably incurred (including legal fees) by the Company in recovering such Erroneously-Awarded Compensation in accordance with the immediately preceding sentence.]⁹

The Committee shall have broad discretion to determine the appropriate means of recovery of Erroneously-Awarded Compensation based on all applicable facts and circumstances and taking into account the time value of money and the cost to shareholders of delaying recovery. However, in no event may the Company accept an amount that is less than the amount of Erroneously-Awarded Compensation in satisfaction of a Covered Person’s obligations hereunder.

VI. Discretionary Recovery

Notwithstanding anything herein to the contrary, the Company shall not be required to take action to recover Erroneously-Awarded Compensation if any one of the following conditions are met and the Committee determines that recovery would be impracticable:

- (i) The direct expenses paid to a third party to assist in enforcing this Policy against a Covered Person would exceed the amount to be recovered, after the Company has made a reasonable attempt to recover the applicable Erroneously-Awarded Compensation, documented such attempts and provided such documentation to the Nasdaq;

⁹ NTD: The Company may, but is not required, to include the fees associated with recovery, e.g., legal fees.

- (ii) Recovery would violate home country law where that law was adopted prior to November 28, 2022, provided that, before determining that it would be impracticable to recover any amount of Erroneously-Awarded Compensation based on violation of home country law, the Company has obtained an opinion of home country counsel, acceptable to the Nasdaq, that recovery would result in such a violation and a copy of the opinion is provided to the Nasdaq; or
- (iii) Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

VII. Reporting and Disclosure Requirements

The Company shall file all disclosures with respect to this Policy in accordance with the requirements of the federal securities laws, including the disclosure required by the applicable filings required to be made with the SEC.

VIII. Effective Date

This Policy shall apply to any Incentive-Based Compensation Received on or after the Nasdaq Effective Date.

IX. No Indemnification

The Company shall not indemnify any Covered Person against the loss of Erroneously-Awarded Compensation and shall not pay, or reimburse any Covered Persons for premiums, for any insurance policy to fund such Covered Person's potential recovery obligations.¹⁰

X. Administration

The Committee has the sole discretion to administer this Policy and ensure compliance with Nasdaq Rules and any other applicable law, regulation, rule or interpretation of the SEC or Nasdaq promulgated or issued in connection therewith. Actions of the Committee pursuant to this Policy shall be taken by the vote of a majority of its members. The Committee shall, subject to the provisions of this Policy, make such determinations and interpretations and take such actions as it deems necessary, appropriate or advisable. All determinations and interpretations made by the Committee shall be final, binding and conclusive.

XI. Amendment; Termination

The Board may amend this Policy from time to time in its discretion and shall amend this Policy as it deems necessary, including as and when it determines that it is legally required by any federal securities laws, SEC rule or the rules of any national securities exchange or national securities association on which the Company's securities are then listed. The Board may terminate this Policy at any time. Notwithstanding anything in this Section XI to the contrary, no amendment or termination of this Policy shall be effective if such amendment or termination would (after taking into account any actions taken by the Company contemporaneously with such amendment or termination) cause the Company to violate any federal securities laws, SEC rule, or the rules of any national securities exchange or national securities association on which the Company's securities are then listed.

¹⁰ NTD: While the Company is prohibited from insuring/indemnifying Covered Persons, Executive Officers may separately purchase third-party insurance policies to fund potential recovery obligations so long as the Company does not directly/indirectly pay/reimburse the cost of the policies.

XII. Other Recoupment Rights; No Additional Payments

The Committee intends that this Policy will be applied to the fullest extent of the law. The Committee may require that any employment agreement, equity award agreement or any other agreement entered into on or after the Adoption Date shall, as a condition to the grant of any benefit thereunder, require a Covered Person to agree to abide by the terms of this Policy. Any right of recoupment under this Policy is in addition to, and not in lieu of, any other rights under applicable law, regulation or rule or pursuant to the terms of any similar policy in any employment agreement, equity plan, equity award agreement or similar arrangement and any other legal remedies available to the Company. However, this Policy shall not provide for recovery of Incentive-Based Compensation that the Company has already recovered pursuant to Section 304 of the Sarbanes-Oxley Act or other recovery obligations.

XIII. Successors

This Policy shall be binding and enforceable against all Covered Persons and their beneficiaries, heirs, executors, administrators or other legal representatives.

Exhibit A

ACKNOWLEDGEMENT AND AGREEMENT
TO THE
EXECUTIVE OFFICER CLAWBACK POLICY
OF
AQUA METALS, INC.

By signing below, the undersigned acknowledges and confirms that the undersigned has received and reviewed a copy of Aqua metals, Inc.'s Executive Officer Clawback Policy (the "**Policy**"). Capitalized terms used but not otherwise defined in this Acknowledgement Form (this "**Acknowledgement Form**") shall have the meanings ascribed to such terms in the Policy.

By signing this Acknowledgement Form, the undersigned acknowledges and agrees that the undersigned is and will continue to be subject to the Policy and that the Policy will apply both during and after the undersigned's employment with the Company. Further, by signing below, the undersigned agrees to abide by the terms of the Policy, including, without limitation, by returning any Erroneously-Awarded Compensation (as defined in the Policy) to the Company to the extent required by, and in a manner permitted by, the Policy.

Signature

Name

Date