YALE CASE JUNE 5, 2020

# Quench USA

## How a new CEO evaluated his company's growth prospects

***Chris Gates***[1]
***A.J. Wasserstein***[2]

Tony Ibarguen (Harvard Business School 1989) leaned back in his office chair at the end of a long work week in June 2012. After discussions with senior team members and investors, he felt it was time to implement a comprehensive growth strategy for Quench USA.

A year and a half earlier, Ibarguen had been tapped to become the CEO of Quench, a fledgling provider of bottleless filtered water coolers to commercial customers. Before Ibarguen's arrival, Quench had faced $6.1 million of losses on $12.5 million of revenue in 2010. As of June 2012, Quench was on pace to break even for the year. Refer to **Exhibit 3** for Quench's financial statements.

Ibarguen was extremely proud of the progress he had made in his 18 months at the helm. He had quickly gone to work consolidating the company's five facilities into one location that centralized back office functions, distribution, and warehousing while leaving customer-facing field operations in their original locations. This change, along with other hiring and sales initiatives, stabilized Quench's operations and allowed it to begin to grow organically.

However, Quench's customer base was limited to a handful of dispersed markets in the United States. To further bolster the company's organic growth, Ibarguen was considering a programmatic serial acquisition strategy to turn the platform into a nationwide provider of bottleless water machines. Ibarguen had led a successful consolidation strategy in a previous role as the EVP of Entex Information Services, a computer distribution and services company. Ibarguen believed he could use a similar playbook with Quench.

The bottleless water machine industry was highly fragmented, experiencing rapid organic growth, and earned contractually recurring revenue: three factors that Ibarguen believed made Quench a compelling platform for a serial acquisition strategy. Yet, Ibarguen could not help but remember the integration headaches caused by two acquisitions that had closed shortly before his arrival at Quench. Quench's back office systems were not ready to absorb that kind of growth and these strategic moves contributed to operational disorganization.

After 18 months of purposefully halting acquisition activity in response to the flawed integration of Checker Water Solutions and Wayside Water, Ibarguen wondered whether Quench was finally prepared to expand via acquisition. Had the systems and processes required to incorporate a new company into the Quench platform been established? Would Ibarguen's acquisition playbook work at Quench?

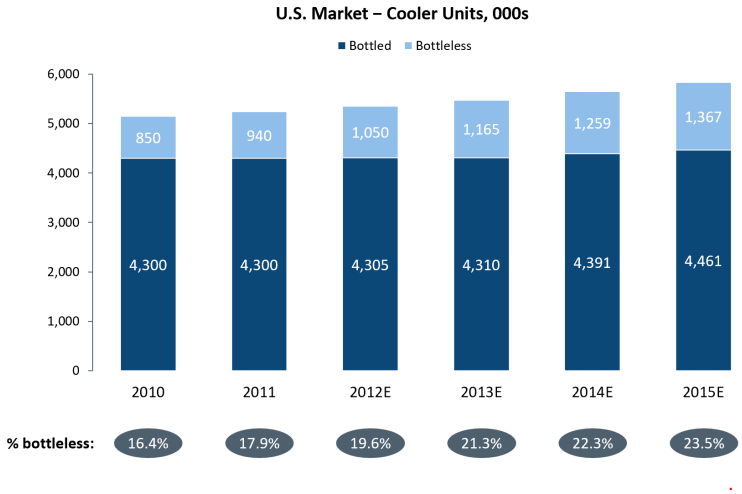
Ibarguen also wondered whether Quench even needed to grow through acquisition to be successful. What additional risks did an acquisition strategy create for the company and its investors? Did Quench's business model and unit economics lend itself to consolidation?

## The POU Water Machine Industry

### Rise of Point-of-Use (POU) Machines

American consumers' expectations for their drinking water have evolved. While purity and taste remain priorities, there is a growing demand for quality drinking water to be supplied with environmentally sustainable practices. Bottled water consumption has come under scrutiny for its negative ecological impact related to its extraction, transport, and packaging. In fact, bottled water bans have been proposed and enacted in several municipalities and university campuses around the world. In line with the trend toward environmentally friendly water sources, the dynamics of the commercial water cooler market in the United States have been altered: the industry is transitioning from traditional water coolers with five-gallon replaceable jugs to bottleless point-of-use (POU) filtration machines that purify an existing water supply.

**Figure 1: Use of Bottleless vs. Bottled Water Coolers**




A 2015 study found that the American commercial water cooler market is worth $4.2 billion annually, with more than 5.8 million units installed across the country. POU systems accounted for almost 25% of the U.S. water cooler market, and the number of bottleless water coolers was on pace to double between 2012 and 2020. Refer to **Exhibit 4** for projected bottleless cooler growth. Approximately 70% of new POU installations represent a conversion away from a traditional jug water cooler, indicating a sizeable organic growth opportunity.[3] Refer to **Exhibit 5** for projected conversion rates from legacy jug systems to bottleless systems.

**Figure 2: Legacy Five-gallon Water Cooler and POU Machine**

*Five-gallon jug water cooler*


*POU filtration machine*

Over 90% of the cost of bottled water comes from packaging and logistics.[3] By eliminating packaging, trucks, drivers, and fuel, all of which are costs that would inevitably be passed on to the customer, users of POU water systems enjoy superior quality filtered water at a lower price. The reduction in packaging and fuel also makes POU water systems more environmentally friendly.

Beyond cost savings and environmental concerns, POU water systems offer a variety of benefits to the end customer. POU machines connect to an existing water line, ensuring that users have a predictable, endless supply of filtered water. Countertop and freestanding floor POU machines eliminate the need to store and lift bulky, 40-pound water jugs in the often-cramped kitchen spaces of commercial buildings. By eliminating delivery and pickup needs, POU systems also create a more secure office environment for employees with fewer outside service provider visits. Additionally, advanced POU systems, which are now the norm, can dispense sparkling and flavored water and even have ice features that jug coolers cannot offer.

## POU Industry Structure

In the United States, companies in this industry can be divided into three main groups: manufacturers, wholesale distributors, and service providers.

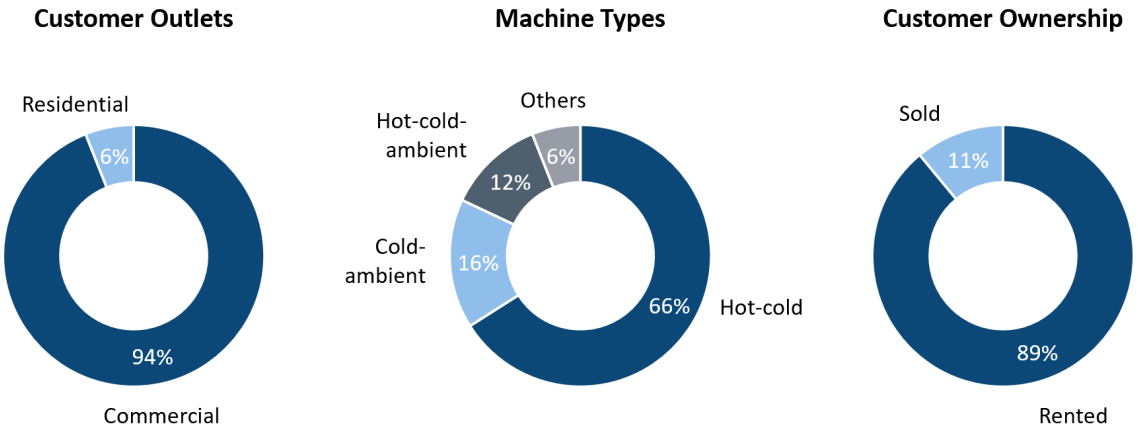
Manufacturers assemble, market, and distribute a variety of POU water machines to wholesale distributors and service providers in exchange for a one-time lump-sum payment. Manufactures do not deal directly with end-users of the machines.

Wholesale distributors typically act as the "middleman" between manufacturers and service providers, sourcing domestic and imported machines from manufacturers at wholesale prices. Like manufacturers, distributors receive a lump-sum payment by selling machines to a network of service providers, leaving the service providers to manage sales and maintenance interactions with end-users.

A variety of companies act as service providers in the United States. Aside from POU specialists, traditional bottled water cooler and office coffee service companies have added POU machines to their product offerings to adjust or bolster their relationships with existing commercial customers.[4]

Service providers place 89% of installed POU machines under auto-renewing, contractual rental agreements lasting between one and five years.[5] Customers pay a monthly rental fee that generally covers periodic service and one-off maintenance requests. The remaining machines in the marketplace are purchased outright by the commercial customer. Those who opt to buy will normally enter into a service contract to manage the maintenance of their machine(s). Given the wide array of water-purifying alternatives for the home, namely fridge filters, faucet attachments, and pitchers with filters, residential demand for POU machines is more competitive.

**Figure 3: POU Industry Machine Demographics**




Despite the growing customer base and a hypothetical demand from companies with national footprints to consolidate their water supplier relationship, the United States' POU water cooler market is highly fragmented, with business being spread across hundreds of small, local providers. The average POU distributor manages between 500 and 1,000 cooler rental or maintenance contracts.[5] Quench anticipated having 46,000 coolers at the end of 2012 and hoped to ultimately accumulate several hundred thousand coolers through its growth program.

## Quench's History

### Quench's Early Years

Quench USA was formed in 2005 via the merger of five POU water cooler distributors in New York City, Philadelphia, Cincinnati, Atlanta, and Jacksonville. These companies, with a total of 15,000 installed machines, theorized that they would achieve significantly more buying power as a larger entity. While the newly formed company successfully negotiated a lower price with its primary POU machine manufacturer, it made no effort to consolidate the geographically dispersed, formerly separate companies. The merged company experienced slow growth from 2005 to 2007 and failed to achieve profitability. In attempt to find an operating partner and overcome its onerous debt financing, the company marketed itself for sale.

Shortly before the onset of the financial crisis in early 2008, **Element Partners**, a small private equity firm based in Radnor, PA, recapitalized Quench by paying off its existing debt and injecting growth equity into the platform. Element, comprised of an experienced group of operators, described Quench as a confederation of companies without a common software system or management structure. See **Exhibit 6** for information on the Element Partners capital raise.

The five Quench locations operated independently from one another and failed to share best practices. To improve and centralize operations, Element appointed leadership from within, hired outside talent, and engaged a consultant to select and implement a new enterprise resource planning (ERP) system. Despite these organizational changes, Quench struggled to grow in the face of the recession.

It became evident to Element that Quench's platform needed a more aggressive overhaul to achieve profitability. With the business environment showing improvement in 2010, Element sought an experienced, external leader who could professionalize operations and execute an ambitious national growth strategy. After an extensive interview process, Ibarguen was selected as Quench's CEO. Furthermore, in October 2011, a year into Ibarguen's tenure, Quench was able to raise capital to secure its immediate future. This represented a strong vote of confidence from its lead existing investors Element Partners and Virgin Green Fund, but importantly, also included new investors, such as Advent Morro, Puerto Rico's largest venture fund, which invested based largely on Ibarguen's own family history and ties to the island.

## Acquisition Activity

When Ibarguen arrived in 2010, Quench was integrating two acquisitions, Checker Water Solutions and Wayside Water, that increased its revenue by approximately 15%. Incorporating the two companies into the Quench platform proved to be a major challenge, especially with the base business struggling to achieve profitability. For Ibarguen, "It was immediately apparent that [Quench] was ill-prepared to thoroughly integrate these companies."

Checker Water Solutions, a POU distributor in North Carolina, represented a new business locale for Quench, and, on the surface, the deal was an attractive opportunity to expand the company's footprint in the Southeast United States. However, during its due diligence process, Quench failed to identify the different billing methods and contract structures that Checker used with its commercial customers. Checker's customers paid for both use of the machine and maintenance service monthly regardless of whether any maintenance service was rendered. During the integration period, Quench's billing system failed to charge customers for monthly maintenance, leading to smaller-than-underwritten monthly payments from all customers. The operating performance of this new portfolio of machines fell far below what was modeled for the acquisition.

Wayside Water was headquartered in Baltimore, one of Quench's existing markets, and followed an "all-in-one" billing model identical to Quench's. However, the company focused on large, national accounts with end-users distributed in many parts of the United States and with service requirements that expanded well beyond Quench's in-house capabilities. Larger clients had higher expectations of the speed and thoroughness of service. Quench was forced to rely on a variety of third-party contractors to handle the frequent field maintenance requests. Most third-party contractors were not focused exclusively on water cooler maintenance and owned small businesses, which they understandably prioritized over Quench's customers. Additionally, while Quench's equipment was not complicated, third parties were not acclimated to the machines and frequently made incorrect maintenance decisions. Service standards

slipped. A few months into the integration period, Ibarguen and his team began fielding calls from large, national customers with complaints and requests to cancel.

Fearing that any future acquisitions would be plagued by similar billing and service issues, Ibarguen elected to delay a third transaction on the West Coast and postpone acquisition activity indefinitely.

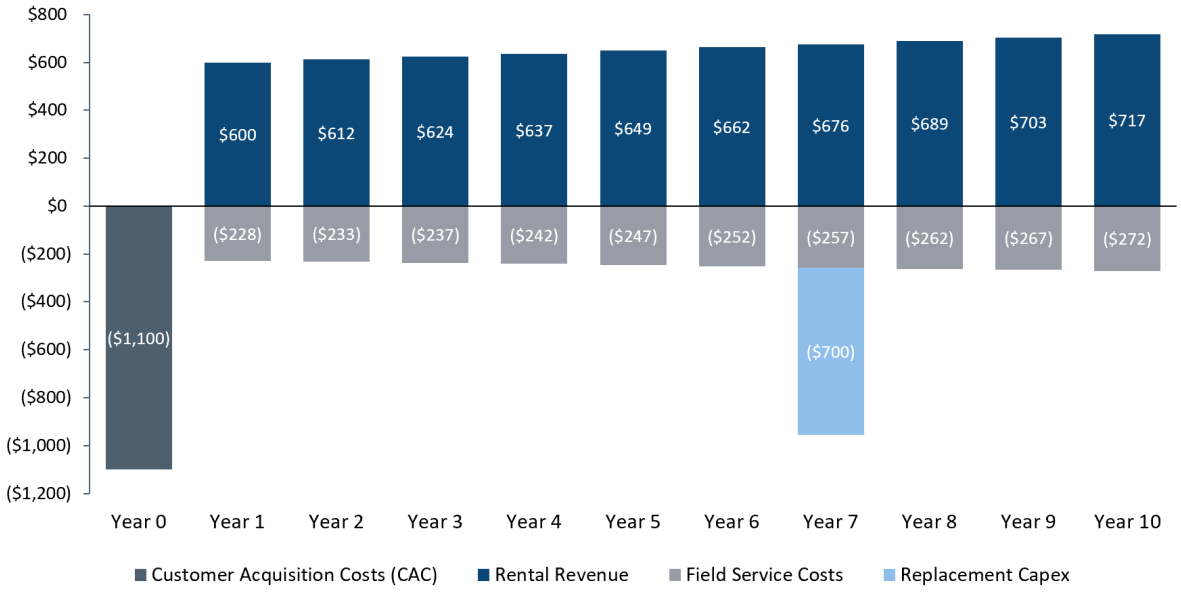
## Unit Economics

Ibarguen's efforts to professionalize Quench's operations included an initiative to better predict the anticipated lifetime revenues and expenses associated with the installation of a Quench machine. Understanding the financial returns on an individual machine was an exercise in unit economics. Unit economics focuses on the costs associated with acquiring a customer, referred to as customer acquisition costs (CAC), and the subsequent revenues associated with a customer over the time they use a product. Unlike generally accepted accounting principles (GAAP), the unit economics model focuses on the incremental cash dynamics of the customer relationship over multiple periods rather than a single year. For a machine installation to be profitable for Quench, the stream of cash flows, starting with CAC and followed by the lifetime revenues derived from the customer, would need to generate a sufficiently positive internal rate of return (IRR).

While it was vital to compile detailed knowledge of Quench's company-level capital structure and aggregate operating performance, before making any strategic business decisions, Ibarguen first wanted to confirm that "on an individual unit basis, we are making a really good investment." Ibarguen knew that understanding unit economics was essential because it "helps to sharpen the execution side of the business" by identifying revenue and expense levers that can be pulled to improve profitability and drive growth. Unit economics is arguably the fundamental financial building block of any business, but it is especially important for business models like Quench’s, which anticipate long-term cash flows but require a significant upfront investment to attract a customer.

Before Ibarguen arrived in 2012, Quench's leadership team did not have an organized, robust historical data set to leverage. This made accurately projecting the direct costs and revenues associated with installation of a cooler very difficult. Ibarguen was forced to use managerial discretion, along with employee feedback and data points from a small sample of customers, to estimate a variety of important metrics like revenue per cooler, customer churn rates, cost per installation and maintenance costs per cooler. Refer to **Figure 4** for a graph of Quench's unit economics in 2012, as estimated by Ibarguen and his management team.

**Figure 4: Quench's Illustrative Unit Economics**




The net cash flows depicted in the graph above result in a 30% IRR after a 10-year rental period. Refer to **Exhibit 7** for more detail on Quench's estimated unit economics. Several assumptions in the unit economics analysis would, if inaccurate, have a material impact on the 30% underwritten return on investment. For example, if the annual attrition rate could be reduced to 5%, the IRR would increase to 33%. If the starting monthly rental rate could be amplified to $55 (a 10% increase from $50) per cooler per month, the IRR is boosted to 37%. Conversely, if starting rental rates fell to $45, the IRR plummets to 23%.

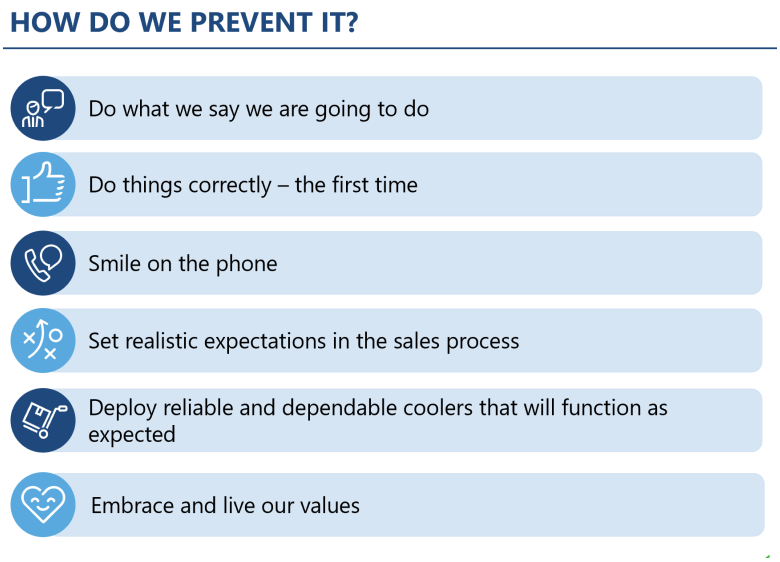
The components driving Quench's unit economic analysis include the following:

- **Customer acquisition costs (CAC)**: the initial investment. The cost of the machine, installation, lead generation, and sales compensation.
- **Attrition rate**: the inverse of the customer retention rate. Customer attrition can be classified into two categories: voluntary and involuntary. Voluntary attrition occurs when a customer decides to switch providers. Involuntary attrition occurs due to circumstances out of the service provider's control, such as customer relocation or bankruptcy. The base cash flows assume an annual attrition rate of 10%, which implies an average rental period of 10 years.
- **Rental rate and price increases**: the monthly machine rental rate and expected annual price increases.
- **Field service costs:** costs associated with routine service and one-off maintenance requests.
- **Replacement CapEx**: the estimated useful life of a Quench POU machine is seven years, after which the machine and installation costs are incurred again.

The projected attrition rate was an important element of Quench's unit economic analysis. Even a slight increase or decrease in attrition rates would have a material impact on the return on investment of a

machine installation. Aside from the obvious loss of revenue and profit, high attrition impacted Quench's ability to include more debt in the capital structure rather than equity. On an operational level, attrition triggered additional costs not found in the unit economics analysis, such as pickup and refurbishment costs. Even if machines were in good enough condition to be used again by a new customer after refurbishment, Quench would incur another round of sales commission and installation costs. To mitigate the negative effects of attrition, Ibarguen instituted a simple yet effective six-point plan (see **Figure 5**).

**Figure 5: Quench's Plan to Mitigate Attrition**




Ibarguen also considered the customer lifetime value (CLV)* of a machine installation, which represented another way of evaluating the economics of adding a new cooler. The CLV calculation is very similar to unit economics in that it considers three components when calculating a customer's value: the capital investment required to establish a new customer relationship (CAC), the profitability of the customer, and how long the customer is expected to be retained. Using the CLV equation and a 15% discount rate, Ibarguen calculated a net customer lifetime value of $611. The CLV of $611 is calculated before incorporating shared services costs and maintenance CapEx.

Ibarguen knew that Quench needed to sharpen its understanding of an individual machine installation's unit economics to more granularly understand Quench's operations. However, even if the team instituted an improved process to track relevant expenses and revenues, Ibarguen was unsure whether he would be able to effectively develop growth strategies based on data with a short time series. How could he be confident in his average rental period (10 years) and machines' useful life (7 years) assumptions with only a year or two of data? How would Quench's unit economics and customer lifetime value change if they acquired a company in a new market or made a tuck-in acquisition in an existing market? What about sales, general, and administrative expenses?

* CLV = m * ((1 + i) / (1+ i – RR)) – AC where m is the contribution margin generated per year by a customer, in dollars, RR is the annual retention rate of a customer, expressed as a percentage, i is the company's discount rate and AC represents the CAC customer acquisition costs (CAC) incurred by the firm.

## The ERP Challenge

Nine months before Ibarguen stepped in as CEO, Quench's investor group, in conjunction with a consultant, made a sizeable investment in a new ERP system. The software, which was marketed as being capable of supporting the company's growth aspirations, was supposedly designed to streamline billing, track owned rental assets, improve the response to customer maintenance requests, and add a layer of business analytics that Quench had previously lacked. However, Quench's integration challenges during its two recent acquisitions highlighted significant deficiencies in the new system. Even after proper training, the sales force and in-house maintenance team began using blunt force methods to handle their responsibilities, often manually circumventing the new ERP platform. Ibarguen knew that archaic business practices like manual billing were inefficient and would not help to create a platform capable of supporting a programmatic acquisition strategy.

Despite the ERP system's flaws, Quench continued to creatively find ways to grow the business. A large city transit authority in New York City issued a request for proposal (RFP) for a contract that would require the installation and ongoing maintenance of 3,000 POU water cooler machines. The group was transitioning from five-gallon jugs to POU machines. Quench ultimately won the RFP based on its bid price, its reputation, and its machine, which was perceived to be of the highest quality. The transit authority requested certain billing procedures and additional programmatic services that Quench had not previously provided. To service the customer, Quench hired professionals who were exclusively dedicated to the transit authority and used Excel, instead of a fully functioning ERP system, to develop custom spreadsheets that could handle the customer's billing and basic financial reporting.

Unimpressed with how the CFO had handled the software transition, Ibarguen hired a new CFO, Tom Breslin, who had extensive experience leading companies with recurring revenue business models. At the same time, Ibarguen appointed his COO, Todd Peterson, and engaged a third-party consultant to deliver a menu of options for upgrading Quench's ERP software. It became clear that a new system, or an upgrade of the existing system, would require another multimillion-dollar investment.

Quench had a robust pipeline of acquisition opportunities. It was experiencing increased success in online marketing and had strengthened its field sales force with the addition of a new leader, John Whalen, who joined Quench from Comcast. Ibarguen felt that the lack of a purpose-built, flexible ERP system was hampering the company's growth and impairing the quality of its service to existing customers. Upgraded software would enable the team to track client-by-client expenses and revenues more scientifically, sharpening their understanding of Quench's true unit economics. However, Quench's free cash flow could not support a second investment in software, and while Quench's investors were willing to write additional equity checks for company acquisitions, they were not willing to do the same for software upgrades. Despite the flawed system, the team had successfully used band-aid solutions to stabilize operations and attract new customers, including the large city transit authority. This situation forced Ibarguen to consider whether he should make the additional investment in an ERP system upgrade, or whether Quench could continue to cope using the existing imperfect system and use the capital elsewhere to support growth.

## Quench's Growth

### Growth Prospects

By the middle of 2012, Quench had made significant strides under Ibarguen's leadership. Improved service helped to decrease the customer attrition rate from 12.9% to 10.2%, adding approximately two years of rental payments to the average POU machine contract. Gross margins had increased from 39.2% to 48.6%, and Quench was generating significantly more revenue per employee, growing from $83,000 to a projection of $112,000 in 2012 (see **Exhibit 3b**). The CFO, COO, and Head of Sales Ibarguen had hired were professionalizing operations in their respective departments. While Quench still needed to solve its ERP problems, Ibarguen felt that the platform was in a comfortable enough position to support growth. His senior team and investors agreed.

Ibarguen and his team considered whether organic or acquired growth would create the most value for shareholders and other constituents. As noted in the above analysis of unit economics, an organically developed cooler contract requires an investment of approximately $1,100. An acquired cooler contract could require an investment of $1,500 to $2,500. To determine whether to build or buy, Ibarguen sought out Janani Rajashekar, a Yale School of Management graduate from Mumbai, India. Rajashekar had a wealth of experience related to strategic analysis and growth initiatives. With a prior stint at Deloitte and a Chartered Accountant designation, she understood the intricacies of accounting treatments for organic and inorganic growth and how they might impact a financial statement. Rajashekar was an active listener who remembered to digest what others were saying before offering advice. Despite being known for listening, Ibarguen was keen to hear from Rajashekar.

#### Organic Growth

Ibarguen wondered whether Quench could develop a business plan that generated double-digit organic revenue growth. The simplest way to grow revenues would be to charge a higher price to current and prospective customers for existing Quench services. Most contracts permitted Quench to increase monthly rates on POU machine rentals and other ancillary rental equipment. However, as Ibarguen put it, could Quench afford "to poke [customers] in the eye" with price increases without confidence that Quench was providing a level of service that warranted a higher price? Price increases might lead to an increased attrition rate, a metric Ibarguen and the Quench team had worked extremely hard to reduce.

Quench's field sales force often attracted new customers by offering a rate on a POU machine that would save the customer $20 per month compared to the traditional five-gallon jug machines. Offering to save the customer money was an easy sales pitch, but it did not leave Quench with any pricing power. The default sales pitch anchored customers to a low, barely profitable price. As a result, Quench was under-optimizing its profit opportunity with large accounts and winning based solely on price with smaller accounts. Ibarguen felt that the sales team needed to reframe their pitch to focus on the bona fide benefits of a POU machine. If a salesperson could position Quench's machine as a premium offering compared to five-gallon jugs, they could shift the prospective customer's mindset from saving money to improving their water experience, thus increasing their willingness to pay. Refer to **Exhibit 8** for a breakdown of how increased prices and improved sales tactics can impact the revenue generated by Quench on an individual machine.

However, organic growth via new customer acquisition was an expensive proposition for Quench. The upfront costs associated with a new customer, including the machine, installation, lead generation, and sales compensation, exceeded $1,100 per machine. In a portfolio context, it would cost Quench over

$1 million of upfront capital to expand the installed machine base by 1,000 via new sales. These additional 1,000 machines would increase revenue by $600,000 and EBITDA* by $362,000 *before* corporate overhead.

Ibarguen realized that even when generating organic growth, the POU rental model is a capital-intensive business for distributors. Installation of a new machine was a profitable investment over the average rental term of ten years, but upfront costs weighed on company profitability and cash needs at the onset of the rental agreement. Because Ibarguen was trying to improve the platform's free cash flow profile, Quench was less inclined to focus capital on an organic sale with significant upfront costs and a payback period of over two years. See **Exhibit 9** for an illustration of salesperson economics.

Quench could also generate organic growth by leveraging its existing customer base to cross-sell other products and services. Ibarguen wondered if coffee would make strategic sense. The coffee machines would use the same water line and filtration as Quench's machines, and virtually all of Quench's commercial customers needed a coffee machine. Moreover, larger multi-location customers often required Quench to bundle coffee in with water systems for a one-stop-shop experience. However, Ibarguen and his team realized upon further research that, despite conceptual similarities, the coffee machine business model was significantly different from Quench's. Coffee companies provided machines to customers at a nominal monthly rate and generated profit by selling consumables such as beans, pods, cups, sugar, and creamers. Delivering these high-margin products to commercial customers required an efficient supply chain and robust delivery infrastructure. Quench's business model did not give it a competitive advantage in terms of supply chain or delivery, which meant that doing so was at best a defensive measure to acquire and retain certain customers. If not coffee, what other products or services could Quench offer its existing customers to generate organic revenue growth?

## Growth via Acquisition

Since Ibarguen halted acquisition activity, the landscape of the water cooler industry in the United States had not changed. The market remained highly fragmented, with hundreds of local and regional players. Additionally, Ibarguen identified only one other company with institutional backing that was employing a disciplined and rational serial acquisition strategy in the space: Onesource Water. Quench's COO, who oversaw corporate development, showed Ibarguen a robust pipeline of companies that expressed a willingness to be acquired by Quench at reasonable valuations. The market seemed ripe for consolidation. Still, Ibarguen was hesitant to make further acquisitions after struggling to integrate the Checker Water Solutions and Wayside Water in 2010.

Most local and regional water cooler companies were managed by "mom and pops" with unsophisticated operations. While inefficiencies in small companies create synergy opportunities for a larger company like Quench, they would also require Quench to conduct extensive diligence on the target company to truly understand its underlying operations. Learning from previous experience, Ibarguen and his team developed a list of factors that Quench needed to understand before they could properly value a target company, an incomplete version of which is below. See **Exhibit 10** for Quench's full acquisition selection criteria.

- Age, quality, and condition of installed machines
- Data quality and availability of contracts
- Remaining term of existing rental agreements

* Earnings Before Interest Taxes Depreciation and Amortization

- Typical rental agreement terms (auto-renew, price increases)
- Service requirements of existing customers
- Location of customers (concentrated or distributed)
- Quality of facility and vehicles
- Personal expenses being run through the business
- Debt financing (on- and off-balance sheet)

Quench also sought to understand the source of a target company's revenue. Specifically, Quench focused on the breakdown between POU equipment rental revenue and equipment sales. Revenue from equipment rental is contractually recurring, as the customer is bound to use the company's POU machine and maintenance service for one to five years. Contracts also renew automatically, making it likely that the rental agreement will extend beyond its initial term. Conversely, a POU equipment sale is often a one-time, non-recurring transaction. Quench was willing to pay a higher multiple for the predictable, long-term stream of equipment rental payments and was less willing to acquire companies that focused on equipment sales, which rarely generated repeat revenue.

## Testing the Waters

Ibarguen decided to test the waters by evaluating the tuck-in acquisition of Union Water Services (UWS). This opportunity was in Philadelphia, a market where Quench already had a critical mass of coolers. The potential deal would add 545 machines to Quench's installed base of 40,000 machines. UWS provided similar machines to customers and structured its customer contracts identically. Ibarguen was confident that the existing resources dedicated to Philadelphia, including back-office professionals and in-house maintenance technicians, had the capacity to manage an additional 545 machines. If Ibarguen's assessment was correct, Quench could add almost $200,000 of annually recurring revenue without adding significant overhead expenses, leading to an underwritten post-acquisition EBITDA margin of 76% on UWS's operations. Without additional suitors, the founder of UWS was willing to sell the company at a 5.8x multiple on in-place EBITDA, which was equivalent to a 3.7x multiple on Quench's underwritten post-integration EBITDA. Refer to **Exhibit 11** for a financial overview of the potential UWS acquisition.

If Quench could continue to source similar tuck-in acquisitions at attractive valuations, it could improve profitability in existing markets by spreading field service costs and sales, general, and administrative expenses over a larger base of coolers. Small tuck-in deals also offered Quench an opportunity to re-test its acquisition diligence and integration processes without the pressure of ruining the entire platform’s operations.

Other transactions that Quench considered represented geographic expansions. These target companies were generally larger in scale and more professionally managed than the mom and pop tuck-in acquisitions. By acquiring a large company for tens of millions of dollars, Quench could quickly broaden its platform and increase its visibility as a reputable acquirer in the industry, leading to additional sourcing opportunities. Making acquisitions in new markets aligned well with the leadership's ambitions to become a nationwide platform capable of fully servicing a Fortune 500 customer with a national footprint. However, deals in new markets would not offer the same operating synergies as tuck-in acquisitions in existing markets. Larger, high-profile companies also tended to be sold at higher EBITDA multiples (8x to 10x).

Ibarguen was approached by an investment bank with an opportunity to acquire Canterbury Water, one of the largest POU machine distributors on the West Coast. Canterbury installed and serviced more than 20,000 machines in California and neighboring states. If Quench acquired Canterbury, the addition of 20,000 machines would increase Quench's machine count by 50%. Ibarguen was attracted to Canterbury's margins and profitability. The company was able to generate $4.4 million of EBITDA on $10.5 million of revenues. Quench would immediately become cash flow positive if it acquired Canterbury. Ibarguen wondered if Canterbury's impressive profitability derived from best-in-class business practices that could be implemented across Quench's platform to improve operations. However, Ibarguen was proud of Quench's progress in its core markets and worried that a large acquisition in a new geography would divert too much of management's attention away from existing markets and existing customers. The reported asking price for Canterbury was $40 million, which represented a 9.1x multiple on EBITDA. Refer to **Exhibit 11** for a financial overview of the potential acquisition and **Exhibit 12** for an acquisition pipeline relative to current Quench locations.

## The Future

Since the formation of the company in 2005, Quench's investors had wanted to become the largest POU, bottleless water cooler provider in the country. With only $20 million of estimated 2012 revenue in a $4 billion industry, Quench was a long way from achieving such a lofty ambition. A pipeline of acquisition opportunities provided a clear path to doubling Quench's revenue and expanding its geographic reach in the next twelve months. Yet, Ibarguen could not help but think about Quench's early integration challenges and wonder if the platform was ready, both financially and operationally, to successfully execute a serial acquisition strategy.

With the industry transitioning from traditional, five-gallon jug coolers to POU filtration systems, Quench's POU product offerings were well-positioned to capture converting customers and achieve significant organic growth in existing markets. The field sales force was in the process of being re-trained, and Quench was considering a variety of new products, including ice machines and sparkling water machines, to bolster recurring revenue per customer.

Organic revenue growth would not double revenue overnight, but Ibarguen wondered if it might be the smartest short-term growth strategy, as it would provide additional time for Quench to improve its systems and processes without the pressure of integrating new companies into the platform. On the other hand, the market was ripe for consolidation, and Ibarguen wondered if the growing pains of acquisitions would be offset by operating synergies and new national accounts.

Before implementing any growth strategy, Ibarguen needed to decide if Quench had the correct ERP system in place to support existing operations. If it did not have the right system, could he convince investors to write another multimillion-dollar equity check to upgrade software that had been purchased less than two years ago? Quench's true unit economics remained a question as well. In a period of growth, could Quench continue to reduce, or even maintain, its customer attrition rate?

As Ibarguen locked his office door for the weekend, he felt a sense of pride for what Quench had accomplished to date under his leadership. Operations had been stabilized, as shown by the company's significantly improved financial performance. Ibarguen had been hired to grow Quench into a national platform, though. He knew that the strategic decisions he would make in the coming months would shape Quench's scale and profitability for years to come.

**Exhibit 1: Tony Ibarguen's Bio**

**Anthony Ibarguen – CEO, Quench**

Anthony Ibarguen has served as the Chief Executive Officer of Quench since October 2010. Mr. Ibarguen has also served on the Board of Directors of the Federal Reserve Bank of Philadelphia since January 2018 and on the Board of Directors of Insight Enterprises, Inc. (NASDAQ: NSIT), a Fortune 500 information technology business, since July 2008. He served as Insight's interim Chief Executive Officer in 2009. From 2004 to 2008, he was the Chief Executive Officer of Alliance Consulting Group, a privately held information technology consulting firm. During that time, he also served on the Board of Directors of CCOR Inc., a global on-demand network solutions provider (NASDAQ: ARRS). He holds a B.A. in Marketing from Boston College and an M.B.A. from Harvard Business School.

**Exhibit 2: Article from January 14, 2011, V.C. News Daily**

# New CEO of Quench USA is thirsty for growth

Jan 14, 2011, 6:00am EST

Tony Ibarguen took over as CEO of Quench USA Inc. last month with a thirst for growth.

Quench, based in King of Prussia, provides point-of-use water filtration to more than 20,000 businesses and has more than 50,000 of its bottleless coolers currently installed nationwide.

With financial backing from private-equity investors Element Partners and Virgin Green Fund, Quench aims to significantly exceed the market's typical growth rate of 10 percent to 15 percent. The private company made four acquisitions last year and is looking for ways to expand geographically, most recently by looking eastward.

Quench has positioned itself as an environmentally friendly alternative to water coolers that use plastic water bottles, which have a higher carbon footprint than water filtered from a tap.

"I love the fact that [Quench] is a green business — that sustainability is a real business imperative these days and no longer just a fad," said Ibarguen, a resident of Villanova with degrees from Boston College and Harvard Business School. The company estimates that its bottle-free cooler system has saved 183 million gallons of water and 3.6 million trees.

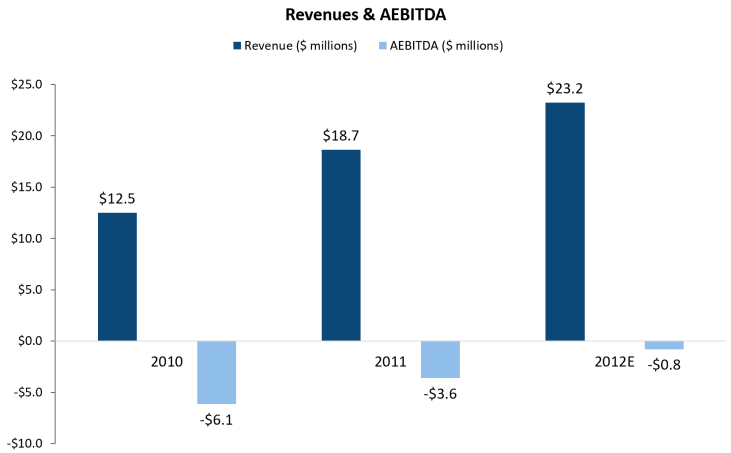
Ibarguen was previously the director, president and CEO of Insight Enterprises Inc., a tech company. Coming from that background, he says he's used to a high-growth pace.

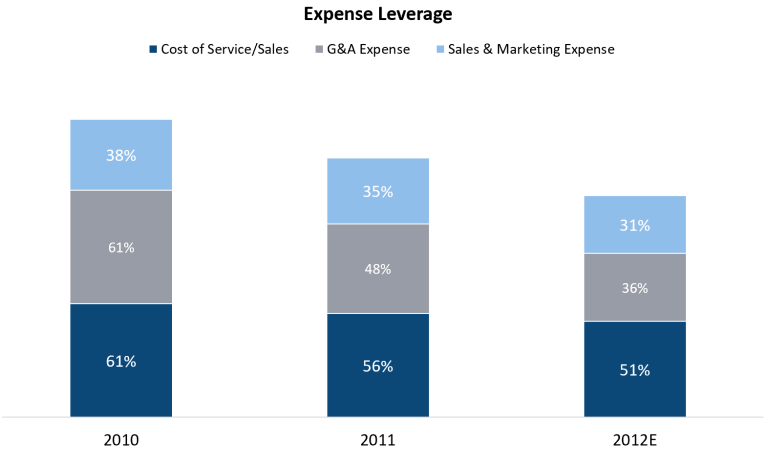
"You have to be able to handle a lot of different things at the same time," said Ibarguen.

## Exhibit 3a: Quench Financial Statements (Historical)

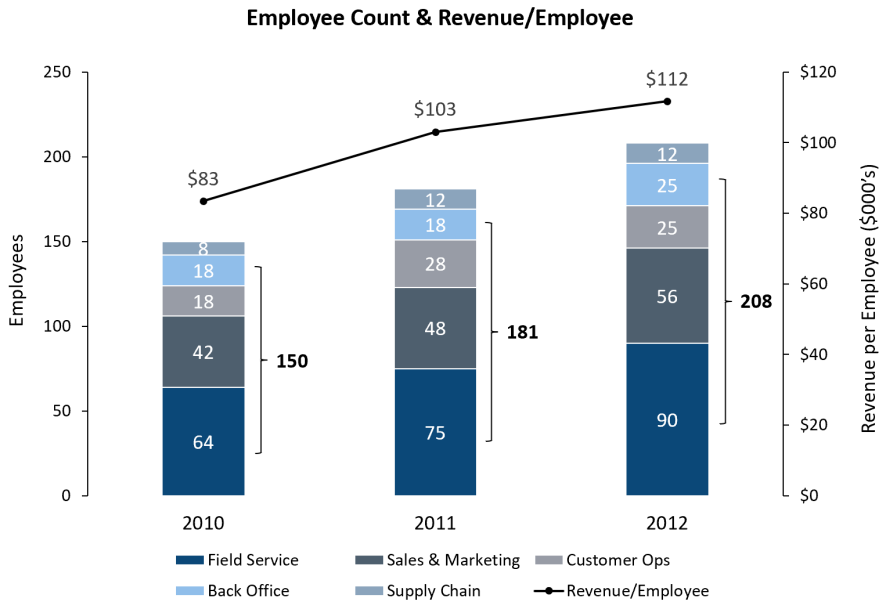
| Income Statement | 2010 | 2011 | 2012E |
|---|---|---|---|
| Rental/Service Revenue | 12,176 | 18,131 | 20,855 |
| Equipment/Other Revenue | 340 | 524 | 2,378 |
| **Total Revenue** | **$12,516** | **$18,655** | **$23,233** |
| Cost of Service/Sales | 7,608 | 10,404 | 11,944 |
| **Gross Profit** | **$4,908** | **$8,251** | **$11,289** |
| Sales & Marketing Expense | 4,776 | 6,609 | 7,171 |
| G&A Expense | 7,627 | 8,956 | 8,475 |
| Total S,G&A | 12,403 | 15,565 | 15,646 |
| **Operating Income** | **-$7,495** | **-$7,314** | **-$4,357** |
| **AEBITDA** | **-$6,134** | **-$3,597** | **-$794** |

| Common Size Income Statement | 2010 | 2011 | 2012 |
|---|---|---|---|
| Rental/Service Revenue | 97% | 97% | 90% |
| Equipment/Other Revenue | 3% | 3% | 10% |
| **Total Revenue** | **100%** | **100%** | **100%** |
| Cost of Service/Sales | 61% | 56% | 51% |
| **Gross Profit** | **39%** | **44%** | **49%** |
| Sales & Marketing Expense | 38% | 35% | 31% |
| G&A Expense | 61% | 48% | 36% |
| Total S,G&A | 99% | 83% | 67% |
| **Operating Income** | **-60%** | **-39%** | **-19%** |
| **AEBITDA** | **-49%** | **-19%** | **-3%** |



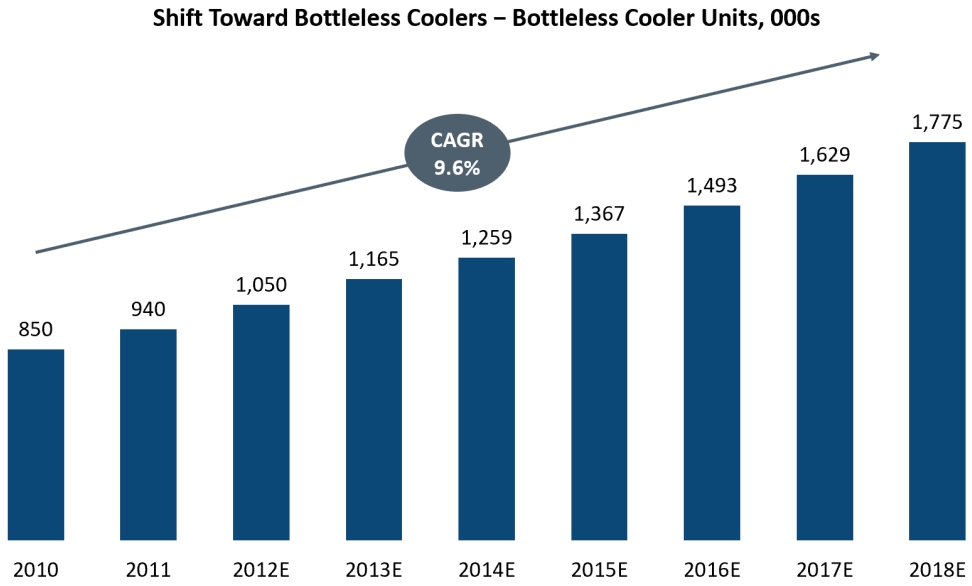
## Exhibit 3b: Quench Financial Statements (Employee Count and Revenue/Employee)



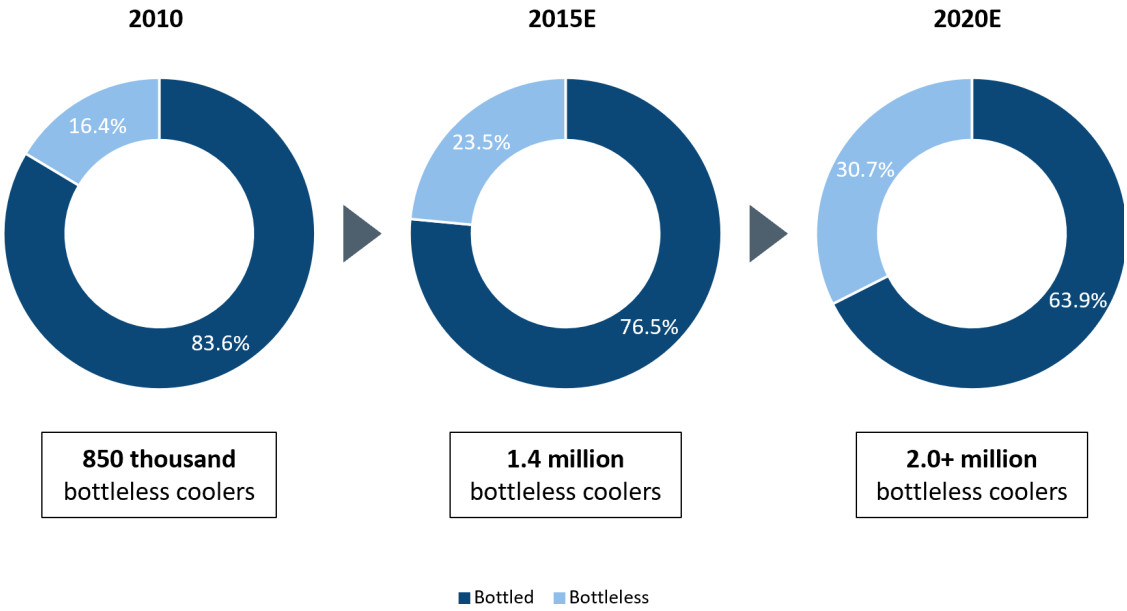
## Exhibit 3c: Quench Financial Statements (Historical and Projected)

| Quench 2010-2015 | 2010 | 2011 | 2012E | 2013P | 2014P | 2015P |
|---|---|---|---|---|---|---|
| Rental/Service Revenue | $12,176 | $18,131 | $20,855 | $24,541 | $36,527 | $44,654 |
| Equipment/Other Revenue | $340 | $524 | $2,378 | $3,201 | $5,960 | $8,237 |
| **Total Revenue** | $12,516 | $18,655 | $23,233 | $27,742 | $42,487 | $52,891 |
| *Growth* | | *49%* | *25%* | *19%* | *53%* | *24%* |
| Cost of Service/Sales | $7,608 | $10,404 | $11,944 | $12,817 | $19,534 | $24,402 |
| **Gross Profit** | $4,908 | $8,251 | $11,289 | $14,925 | $22,953 | $28,489 |
| *Gross Margin* | *39%* | *44%* | *49%* | *54%* | *54%* | *54%* |
| Sales & Marketing Expense | $4,776 | $6,609 | $7,171 | $6,039 | $8,676 | $9,057 |
| *S&M/Rev* | *38%* | *35%* | *31%* | *22%* | *20%* | *17%* |
| G&A Expense | $7,627 | $8,956 | $8,475 | $10,635 | $17,882 | $22,324 |
| *G&A/Rev* | *61%* | *48%* | *36%* | *38%* | *42%* | *42%* |
| **Total S,G&A** | $12,403 | $15,565 | $15,646 | $16,674 | $26,558 | $31,381 |
| *SG&A/Rev* | *99%* | *83%* | *67%* | *60%* | *63%* | *59%* |
| **Operating Income** | ($7,495) | ($7,314) | ($4,357) | ($1,749) | ($3,605) | ($2,892) |
| *OI/Rev* | *-60%* | *-39%* | *-19%* | *-6%* | *-8%* | *-5%* |
| **AEBITDA** | **($6,134)** | **($3,597)** | **($794)** | **($2,820)** | **$5,122** | **$9,081** |
| *AEBITDA Margin* | *-49%* | *-19%* | *-3%* | *-10%* | *12%* | *17%* |
| | | | | | | |
| Owned Rental Units | 29,000 | 39,000 | 46,000 | 53,000 | 75,000 | 85,000 |
| Average Rental Rate/Unit | 34.99 | 38.74 | 37.78 | 38.59 | 40.59 | 43.78 |
| Churn | 12.9% | 10.7% | 10.2% | 9.7% | 9.6% | 7.9% |
| | | | | | | |
| Average Headcount | | | | | | |
| S&M | 42 | 48 | 56 | 47 | 71 | 82 |
| Customer Ops | 18 | 28 | 25 | 35 | 44 | 57 |
| Fld Svc | 64 | 75 | 90 | 99 | 149 | 187 |
| Supply Chain | 8 | 12 | 12 | 14 | 16 | 22 |
| Backoffice | 18 | 18 | 25 | 27 | 34 | 47 |
| | 150 | 181 | 208 | 222 | 314 | 395 |
| Revenue/Headcount | $83 | $103 | $112 | $125 | $135 | $134 |
| | | | | | | |
| Invested Capital | 64,548 | 86,148 | 86,148 | 114,698 | 160,198 | 168,198 |
| Revenue Multiple | 5.2x | 4.6x | 3.7x | 4.1x | 3.8x | 3.2x |

## Exhibit 4: Projected Bottleless Cooler Growth




## Exhibit 5: Projected Conversion Rates from Legacy Jug Systems to Bottleless Systems



## Exhibit 6: Quench Capital Raise (Article from October 12, 2011, V.C. News Daily)

Quench Gets Satisfied With $30M

2011-10-12

Provider of filtered water coolers in North America, announced that it has closed on nearly $30 million in equity and debt financing. Element Partners, Virgin Green Fund, Douglas Brown and other existing investors were joined by new backers ORIX Venture Finance, Advent-Morro Equity Partners, Potomac Energy Fund and The Pohlad Companies.

KING OF PRUSSIA, PA, Quench, the largest independent provider of filtered water coolers in North America, announced today that it has closed on nearly $30 million in equity and debt financing. The financing will help support additional acquisitions and continued organic growth. Element Partners, Virgin Green Fund, Douglas Brown and other existing investors were joined by new backers ORIX Venture Finance, Advent-Morro Equity Partners, Potomac Energy Fund and The Pohlad Companies.

"We are thrilled to have the support of our new equity investors, as well as the vote of confidence from our new debt partner, ORIX Venture Finance," said Douglas Brown, Quench's Chairman. "The fact that institutional investors view Quench as an attractive platform in the current economic climate is a testament to the excitement surrounding Quench's value proposition and unique market position."

Jeff Bede, a Principal at ORIX, said "Quench's combination of recurring revenue and solid growth make it an ideal portfolio company for us. The business is growing rapidly and is well positioned for the consolidation of the filtered water services industry. We look forward to working with the Quench management team to help their continued growth in the filtered water cooler market."

Quench CEO Anthony Ibarguen added, "This funding will accelerate our growth in key markets across the country, as we continue to capitalize on the trend of businesses switching to filtered water coolers from traditional plastic-jug water coolers. We expect our growth will continue organically as well as through acquisitions of like-minded entrepreneurs in the filtered water industry."

About Quench
Headquartered outside Philadelphia, Pennsylvania, Quench USA, Inc. is a clean technology company that rents, installs and services "bottleless" water filtration systems (also known as point-of-use water coolers) for businesses across North America. Quench systems purify tap water, providing a more cost-effective and environmentally responsible solution than delivery of water in 5-gallon plastic jugs. With an installed base of more than 50,000 water filtration systems across 47 U.S. states, Mexico, Canada and the Caribbean, Quench is the largest bottleless water cooler company in North America - serving approximately one-third of the Fortune 500. For more information, please visit **www.quenchonline.com**.

About ORIX Venture Finance
ORIX Venture Finance, a business unit of ORIX USA Corporation, provides customized financial solutions to mid- and late-stage companies which have established customers and run-rate revenues of $10 million or greater. Since its inception in 2001, ORIX Venture Finance has invested in 90 growth companies throughout the UNITED STATES and Canada. www.orixventurefinance.com. ORIX USA Corporation (www.orix.com) is a financial conglomerate with operations or investments across corporate, real estate and public finance markets as well as advisory services and asset management. ORIX USA's public parent is ORIX Corporation, an, international financial services company established in 1964 with headquarters in Tokyo and operations in 27 countries. ORIX Corporation is listed on the Tokyo (8591) and New York (NYSE: IX) stock exchanges.

About Element Partners

Element Partners invests in high growth companies offering innovative solutions to global energy, resource, and environmental problems. Element is a growth equity investor that is willing to make minority equity investments and become a long-term partner with pioneering companies. Since 1995, Element's team has successfully managed over $1.2 billion in capital commitments spanning six investment partnerships. These partnerships have all been focused on investing in profitable and growing energy, industrial, and environmental related businesses. Over the course of more than fifteen years, the principals of Element have collectively invested in over 100 companies. For more information, please visitwww.elementpartners.com.

About Advent-Morro Equity Partners

Advent-Morro Equity Partners is the leading U.S. private equity firm based in Puerto Rico and focuses on expansion capital and lower middle market buyouts predominantly targeted at companies led by Hispanic management teams or companies targeting the U.S. Hispanic and Latin American markets. Since its inception in 1989, Advent-Morro has invested in more than 40 companies, generating in aggregate over $3.5 billion in annual revenues and employing more than 3,000 people, making a significant contribution to economic development in the markets where those companies operate. For more information, visit www.adventmorro.com.

## Exhibit 7: Quench Unit Economic Assumptions and Math

| Year | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Customer Acq. Costs | (1,100) | - | - | - | - | - | - | - | - | - | - |
| Rental Revenue | - | 600 | 612 | 624 | 637 | 649 | 662 | 676 | 689 | 703 | 717 |
| Field Service Costs | - | (228) | (233) | (237) | (242) | (247) | (252) | (257) | (262) | (267) | (272) |
| Replacement Capex | - | - | - | - | - | - | - | (700) | - | - | - |
| **Net Cash Flow** | -$1,100 | $372 | $379 | $387 | $395 | $403 | $411 | -$281 | $427 | $436 | $445 |

| Assumptions | |
|---|---|
| Initial Investment | -$1,100 |
| Year 1 Rental Rate | $50 |
| Price Increases | 2.0% |
| Monthly Service Costs | -$19 |
| Replacement Capex | -$700 |
| Replacement Capex Year | 7 |
| Attrition Rate | 10.0% |
| Rental Period | 10 |

| Returns | |
|---|---|
| IRR | 30% |

## Exhibit 8: Quench Machine-Rental Pricing Options

| Scenario | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| **A** | $420 | $420 | $420 | $420 | $420 | $420 | $420 | $420 | $420 | $420 |
| **B** | $420 | $428 | $437 | $446 | $455 | $464 | $473 | $482 | $492 | $502 |
| **C** | $600 | $600 | $600 | $600 | $600 | $600 | $600 | $600 | $600 | $600 |
| **D** | $600 | $612 | $624 | $637 | $649 | $662 | $676 | $689 | $703 | $717 |

| | |
|---|---|
| A | Rate of $35 per month. Save customers $20 per month compared to traditional, five gallon jug cooler. No annual price increases. |
| B | Rate of $35 per month. Save customers $20 per month compared to traditional, five gallon jug cooler. 2% annual price increases. |
| C | Rate of $50 per month. Premium POU machine sales pitch. No annual price increases. |
| D | Rent of $50 per month. Premium POU machine sales pitch. 2% annual price increases. |

## Exhibit 9: Illustrative Salesperson Economics

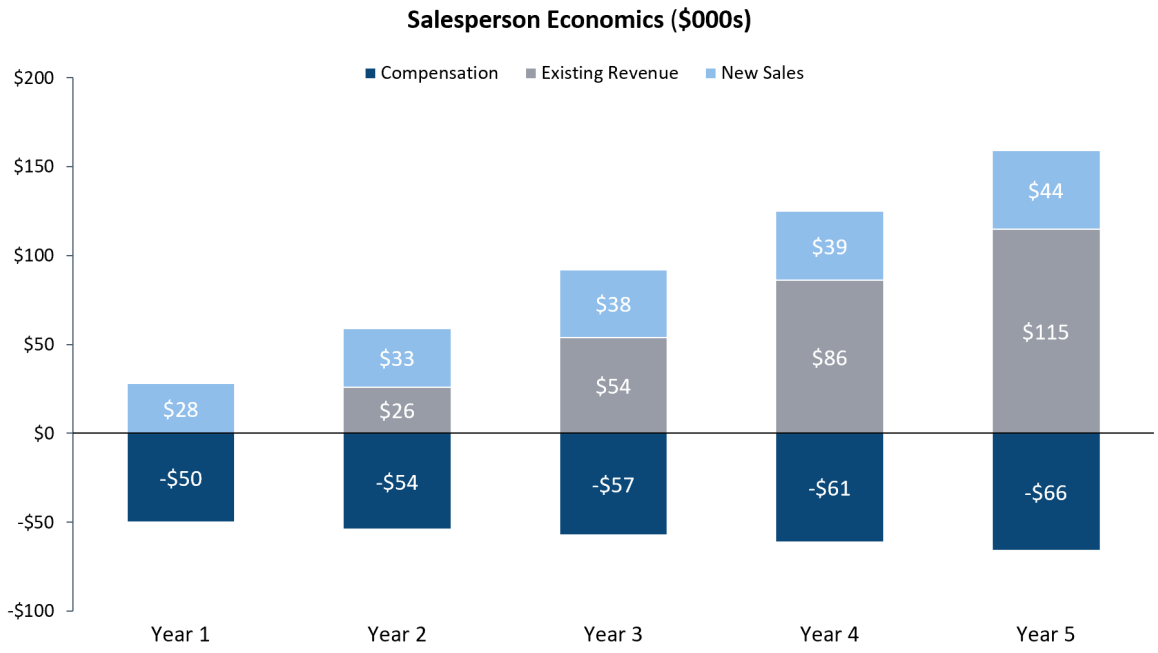


**Exhibit 10: Quench Acquisition Selection Criteria and Process**

## Business Valuation

Valuation is based on an estimate of future years of cash flow

1. Recurring Monthly Revenue
   - Contractual cash flow for some period into the future including the likelihood of renewal for a further period into the future
   - One-time or re-occurring revenue is also valued, but at lower multiple
   - Ignores your costs of service and operations
2. Earnings before interest, taxes, depreciation and amortization (EBITDA)
   - Substitute for Cash Flow
   - Factors in all revenue types and your cost of service and operations
   - Ignores how you financed the business and whether you paid taxes
   - Assumes the asset base has plenty of useful life left (relatively un-depreciated)

- We apply a forward multiple to AEBITDA and RMR and create a discounted cash flow model to determine the maximum price that we can pay while still achieving our targeted returns
- This can be converted to a "per-cooler" metric as a reference point

## Other Valuation Factors

- Pricing and gross margins
- Add-on and upgrade potential
- Product Mix and service requirements
- Filtration type and quality
- Locations (concentrated or distributed)
- Service levels delivered; overdue PMs
- Installation quality; tubing
- Installed base age, quality and condition
- One-off applications or services
  - Whole building, frequent PMs, barter, unique billing or terms
- Third party (factored) financing
- Data Quality and availability
  - Signed and scanned contracts
- Remaining term on existing rental agreements/leases
- Rental agreement terms
  - Auto renew, price increases, late fees and proper protections
- AR and bad debt history
- Employee and other costs (if assumed as part of the transaction)
- Facilities
- Inventory
- Vehicles
- Owner Expense adjustments

## Deal Process

- Get to know each other
  - Deals are easier if we have a relationship
- Non-Disclosure Agreement
  - Legal comfort that we cannot use the information you share with us for anything other than the evaluation of the business
  - Standard 2-3 page legal agreement
  - Impractical for us to violate this fundamental requirement in order to be a credible buyer
- Information Exchange
  - XL template
  - Recent financials from your system
  - Interview
  - Site visit
- Letter of Interest
  - Valuation and related assumptions
  - Diligence process outline
  - Closing timing and plan
- "Long poles in the tent"
  - APA – depends the quality of your attorney
  - Contract/lease assignments
  - Lease buyout
  - Diligence – rate audit, financial, tax, legal
  - Integration planning, data ingestion, employee training
- Typical timing 45-60 days from LOI signing
- Referenceable certainty to close
  - We do what we say we will do
  - We have never backed out of a transaction once we issued an LOI

## Asset Purchase Agreement

- Substantially all the assets required or related to the operation of the business
  - Tangible - rented systems, inventory, contracts, receivables
    - Vehicles - to the extent value exceeds related liability
  - Intangible - customer information, website, trademarks, marketing assets
- Liabilities related to the operation of the business (AP, sometimes facilities)
- Debt free/cash free
- Adequate working capital
  - Goal is to not have to inject additional capital to run the business at the current level
  - Typically use recent history depending on growth rate
- Confidentiality, Non Compete and Non Solicitation of customers and employees – typically 5 years
- Selected hires – sometimes require certain key personnel to stay

## Exhibit 11: Potential Acquisition Financials

**Union Water Services (UWS)**
**"Tuck-in" Acquisition**

**UWS Operations**

| | $ | % |
|---|---|---|
| Revenue | 197,460 | 100% |
| Cost of Revenue | (29,619) | -15% |
| Gross Profit | 167,841 | 85% |
| SG&A | (88,857) | -45% |
| EBITDA | 78,984 | 40% |
| | | |
| Purchase Price | 460,000 | |
| EBITDA Multiple | 5.8x | |

**Post-Integration Quench Operations**

| | $ | % |
|---|---|---|
| Revenue | 197,460 | 100% |
| Cost of Revenue | (29,619) | -15% |
| Gross Profit | 167,841 | 85% |
| SG&A | (17,771) | -9% |
| EBITDA | 150,070 | 76% |
| | | |
| Purchase Price | 460,000 | |
| EBITDA Multiple | 3.1x | |

**Canterbury Water**
**West Coast Acquisition**

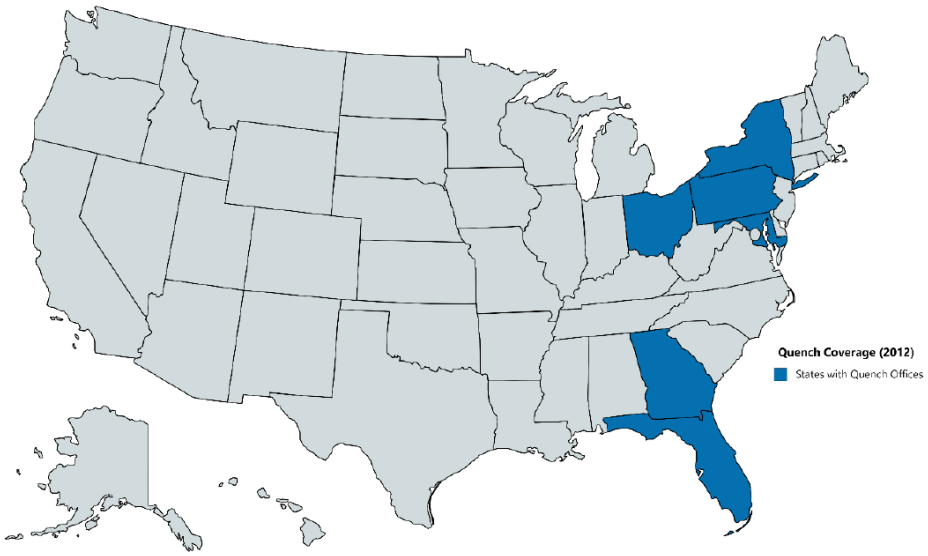
**Canterbury Operations**

| | $ | % |
|---|---|---|
| Revenue | 10,478,745 | 100% |
| Cost of Revenue | (3,727,073) | -36% |
| Gross Profit | 6,751,672 | 64% |
| SG&A | (2,338,003) | -22% |
| EBITDA | 4,413,669 | 42% |
| | | |
| Purchase Price | 40,000,000 | |
| EBITDA Multiple | 9.1x | |

**Post-Integration Quench Operations**

| | $ | % |
|---|---|---|
| Revenue | 10,478,745 | 100% |
| Cost of Revenue | (3,727,073) | -36% |
| Gross Profit | 6,751,672 | 64% |
| SG&A | (1,915,000) | -18% |
| EBITDA | 4,836,672 | 46% |
| | | |
| Purchase Price | 40,000,000 | |
| EBITDA Multiple | 8.3x | |

**Exhibit 12: Current Quench Locations and Potential Acquisition Pipeline**




| Potential Acquisition Pipeline | | |
|---|---|---|
| **Coolers** | **State** | **Type** |
| 20,000 | CA | Expansion |
| 5,600 | AZ/TX | Expansion |
| 3,000 | GA | Tuck-in |
| 2,700 | MI | Expansion |
| 1,800 | MD | Tuck-in |
| 1,700 | CO | Expansion |
| 1,500 | CA | Expansion |
| 1,100 | FL | Tuck-in |
| 800 | NY | Tuck-in |
| 600 | PA | Tuck-in |

## Exhibit 13: Sample Quench POU Water Coolers

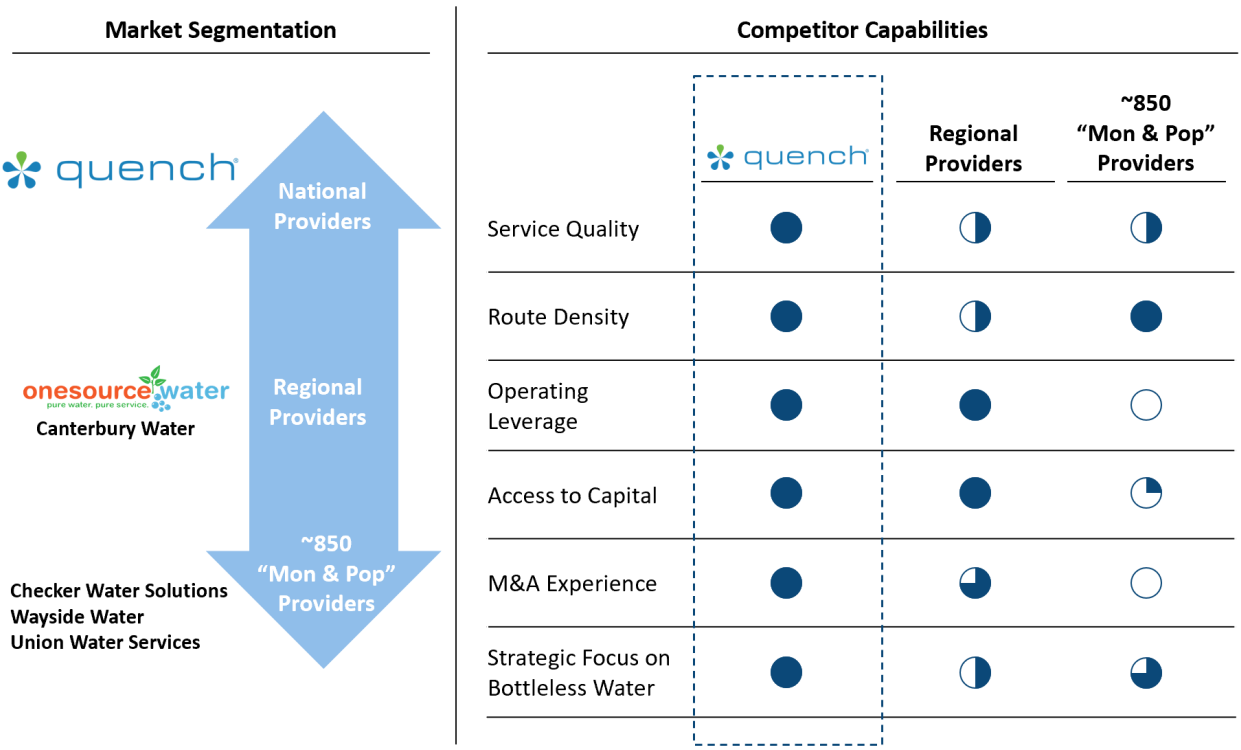

**Quench Q7 Series**
Freestanding & Countertop Series with quenchWATER+

**Quench Q5 Series**
Freestanding and Countertop Series with quenchWATER+

**Quench 810**
Commercial Capacity Bottlefree Water Cooler

## Exhibit 14: Quench Field Operations Location

## Exhibit 15: Quench Market Positioning and Capabilities



## Endnotes

[1] Case writer. Yale School of Management, Class of 2020.

[2] Eugene F. Williams, Jr., Lecturer in the Practice of Management.

[3] Point of Use Water Coolers: What-How-Why. (2019, October 24). Retrieved May 01, 2020, from https://quenchwater.com/point-of-use-water-coolers/

[4] USA Bottled Water Coolers and Point of Use Report 2015 (Publication). (2015). Bath, UK: Zenith International.