



## CASE STUDY

# Victory Brewing Company Improving Brewing Quality Assurance Processes with BREWPRO™

Since 1996, Victory Brewing Company has been brewing creative, flavorful beers with whole-flower hops. The brewery is always improving, especially when it comes to quality assurance. In 2014, the company adopted BREWPAL™ powered by VERIFLOW® technology to detect the spoilage organisms, *Pediococcus* and *Lactobacillus*, faster. Moving from a traditional plated method to VERIFLOW, shortened the testing process from 5–7 days to just 3 hours. Today, upgrading to BREWPRO on GENE-UP® is a critical component of their overall quality assurance process to detect and quantify spoilage organisms and protect their brand.

### BACKGROUND

- Brews > 150,000 barrels per year
- Started using VERIFLOW in 2014
- Tests bright tanks and packaged product

### PROBLEM

Since Victory began with BREWPAL in 2014, they experienced significant business growth and evolving needs including:

- A growth in production of 20%, which led to an increase number of samples to be tested
- An enhanced yeast propagation program which required additional troubleshooting and analysis
- An expanded kettle sour program
- Expanded to new sites adding risk due to transportation challenges
- More diversified offerings, including non-alcoholic and beers with heavy adjuncts

“ The profit from shipping a single large customer order on time pays for the complete investment we made in BREWPAL and BREWPRO equipment and tests. ”

– Director of Brewery Operations at Large Regional Craft



### COMPANY PROFILE

- Pennsylvania-based craft brewery founded in 1996
- 11 year-round beers, and 9 seasonal beers, including all styles from lagers to imperial stouts
- Uses only whole-flower hops in beer brewing
- Current distribution includes 34 states, as well as a growing international business in over 8 countries

PIONEERING DIAGNOSTICS

## SOLUTION

Victory upgraded to BREWPRO™ on GENE-UP®, Invisible Sentinel's newest solution, in order to gain efficiencies necessary to address their growth and expanded needs. The multiplex results provided significantly more information per reaction in less than 4 hours, requiring minimal hands-on time. Detailed reports that detect both the presence of and the relative abundance of gene targets allow the brewers to more easily assess spoilage risk. The flexible GENE-UP PCR system is open and easy to use, making it possible to test for the most common spoilage organisms quickly. Overall, they saw similar value to BREWPAL™ with some important added features that help meet a large brewery's needs.

## RESULTS

- Saves time by reducing labor needed to complete testing
- Saves money due to multiplexing testing
- Develops a true "risk profile" for each of their beers
- Continuing to explore other uses of GENE-UP for research, including an in-house yeast propagation program

## DISCUSSION

Brand integrity is paramount at Victory; same-day release of product with confidence that the beer is free from spoilage organisms provides real peace of mind. A recent run of barrel-aged product tested as positive for *Lactobacillus*. After cleaning the tanks, Victory was able to immediately proceed with a subsequent run of a time-sensitive batch of beer to fill a priority customer order. BREWPAL testing showed that the tank cleaning was effective, the next run of beer was free of *Lactobacillus*, and no hold time was required.

“ The BREWPRO assay, paired with GENE-UP, provides us with accurate results within a few hours of sampling. This allows us peace of mind to meet the demand of our wholesalers without sacrificing the long-term quality of the product. Contamination events are extremely costly, both financially and to brand perception; BREWPRO assures our beer is clean prior to shipment well in advance of traditional micro assays. ”

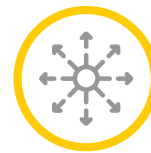
– Zach Miller, Yeast and Fermentation Manager



**Identify  
problem areas**



**Ensure safety  
of yeast before  
pitching in beer**



**Propagate 95+  
in-house strains  
of yeast**

**To request a demonstration or learn more about BREWPRO,  
contact us at 215.966.6118 or [info@invisiblesentinel.com](mailto:info@invisiblesentinel.com).**

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**PIONEERING DIAGNOSTICS**