

StableWeigh™ Savings Go Beyond Dollars and Cents

Environmental Case Study



Product:

StableWeigh™ TDS
Vessels

Customer:

TestAmerica, North
Canton, OH

Industry:

Commercial Laboratory

Highlights:

- Eliminated preparation steps
- Saved 2 hrs in cooling time
- Better accuracy with less reweighs
- Static issues easily resolved
- Proven for compliance



www.TestAmericaInc.com

The Summary

TestAmerica, a national commercial laboratory located in North Canton, OH, worked with Environmental Express (a Cole-Parmer company) StableWeigh™ vessels to optimize their Total Dissolved Solids (TDS) analysis. This TestAmerica facility has been using the vessels for over two months and has already seen great savings. In fact, the benefits were realized with the first TDS batch. These savings and benefits go beyond just cost reductions. When Lucas Grossman, Lab Manager, was introduced to StableWeigh vessels and realized they could replace the beakers and crucibles used in their TDS analysis, he said, “We can definitely see our lab adopting these for TDS testing going forward. I’m sold!”

The Obstacles to Overcome

Running 80 samples a week creates a variety of waste streams for this TestAmerica facility. Some waste is easily overlooked because it is lost in everyday processes. Water used for cleaning and rinsing, for example, accounts for large costs in the laboratory. Because StableWeigh vessels are disposable, this waste is eliminated from the laboratory.

Time is another lab waste that is often not evaluated regularly. A big time-waster can be simple preparation before beginning the analysis. Preparation for a TDS batch could take anywhere from three to six hours to properly clean, dry, cool, and weigh the crucibles used in the analysis. Though some time cannot be reduced due to method requirements, StableWeigh vessels offer a significant time savings in the washing, drying, and weighing times. TestAmerica uses glass beakers, which can take over two hours to cool after every oven placement. Obtaining initial tare weights can take 30 to 60 minutes for a batch of crucibles. Too much time between preparation and final analysis leaves room for distraction and errors causing rework. These time wastes delay final results and reduce laboratory efficiency.

“In preparation time savings, we were looking at between 30 minutes to 60 minutes a day having to do the tare weights of the beakers and cleaning the beakers. That is in just labor savings and does not include wait times, which are an hour of having them in the oven and then waiting two hours for them to cool down before you can even do tare weights on them.”

– Lucas Grossman, Lab Manager, TestAmerica

The Solution & Results

It is typical for the TDS analysis to be low revenue-generating on a per test basis. With a lot of competition in the commercial laboratory space, it is best to try and make a profit by optimizing the analysis, rather than charging more. This is where TestAmerica saw the value in StableWeigh vessels.

Always looking for ways to improve, TestAmerica knows the importance of adopting innovation to save money and generate more revenue. Of course, innovation carries risks. It involves a new product used in replacement of what people are accustomed to using. For TestAmerica, beta testing the StableWeigh vessels was a great, low-risk way to see how the vessels could help their lab improve processes and save time. It also helped shape the development of the vessels and shed light on areas of potential improvement. The feedback TestAmerica provided allowed Environmental Express to release a market-ready, tried and true product.

While using StableWeigh vessels, TestAmerica did experience static, as is common with a polymer material. This was simply solved by using an antistatic device, such as a deionizer. Moving past the static issues, Grossman and his team were able to save a lot of time in preparation and cooling and were able to generate accurate results. Grossman states, “Cooling time is great...15 to 20 minutes. We currently use glass beakers, and the cooling time is at least two hours and sometimes pushing two and a half hours.”

As with every analysis, the accuracy of results is very important in TDS. When using traditional glass or ceramic crucibles and consecutive weights don't meet the method-required +/- 0.5 mg, each additional weight could add another three hours to the analysis. StableWeigh™ vessels are more likely to achieve final results within two weights due to the unique properties of the material. StableWeigh vessels absorb moisture at a very low rate and are typically an order of magnitude lighter in weight compared to traditional crucibles. This means StableWeigh vessels are less affected by humidity and will provide more accurate results for samples with lower TDS concentrations. The biggest issue faced when switching was the extra supplies. Grossman concluded by saying, “At this point we just have tons and tons of extra beakers lying around.”