

## CASE HISTORY

# NALCO CHAMPION'S DATAIQ TLM OFFERS ACCURATE REMOTE MONITORING OF CRITICAL CHEMICAL PROGRAMS, ALLOWING OPERATORS TO AGILELY RESPOND TO PROBLEMS



## SITUATION AND CHALLENGE

A North American Operator was looking for a solution to better manage their chemical program in their South Texas conventional oilfield.

Unmanned, remote wellsite locations require field personnel to manually track inventory, ensure proper dosage rates, troubleshoot pumps and facilitate chemical orders and delivery. A shortage of information around orders and inventory can threaten security of supply, leaving an operator without chemical when it is needed for dynamic production changes, and constant physical monitoring requires many visits to the site, increasing labor costs and threatening process safety by increasing exposure to chemicals.

## INSIGHT

In recent years, Nalco Champion has been investigating ways to leverage technology to address these concerns. They have looked into solutions that increase transparency around chemical treatment and onsite

inventory, track historic dosage data for effective chemical failure analysis and provide peace of mind to the customer that they will have full visibility to these aspects of their chemical program without constant physical monitoring.

## SOLUTION

Nalco Champion collaborated with the customer to assess their current chemical program, and found there was some scope for improvement for injection assurance, dosing accuracy and risk control that could be addressed with enhanced access to operational data. They selected 54 tank locations based on the criticality of chemical programs and remoteness of location attributing to a history of documented operational inefficiencies. In this case, these sites were undertreating by 29 percent of actual recommended volume.

The units were installed on production chemical tanks with continuous injection application. Alarms were configured to draw attention to over- or under-treatment based on an average set of remote readings and inventory levels. Notification emails were sent daily to track data. The DataIQ data management platform displayed updated

tanks levels and derived actionable insights to the customer at any given time.

## RESULTS

*Normalized over a 30-day period, undertreating was corrected by 61 percent. Undertreatment reduced from 2021 to 786 gallons across 50 wellsite locations, with further refinement forecasted. This program also addressed following customer operational needs:*

### Improved Efficiency:

#### *Production Efficiency:*

- Capillary string chemical applications are sensitive and need additional monitoring to prevent mistreatment. The ability to monitor these treatment levels enabled personnel to respond more quickly to operational failures and prevent spills and shut-ins. In this case, one such alarm alerted the customer that a pump was mistreating by 75 gallons a day. If this problem had not been identified and addressed by the DataIQ TLM, it may have caused a failure of the pump, interrupting operations
- Monitoring data on DataIQ TLM over time revealed inefficiencies with solar pumps attributed to operations at night. Nalco Champion personnel used this insight and adjusted the injection rate to meet the daily target dosage rate

#### *Service Efficiency:*

- DataIQ TLM program enabled Nalco Champion to enhance working efficiency of in-field service personnel by 15% enabling them to focus on more critical operational tasks

- Access to comprehensive actionable data reports from the DataIQ TLM program enabled Nalco Champion personnel to effectively communicate operational updates and inventory requirements to the customer

#### *Financial Efficiency:*

- Enhanced visibility in to operations provided by DataIQ TLM enabled customer to better manage working capital
- Additionally, enhanced visibility through this program assisted the operator in minimizing unbudgeted operating expense associated with troubleshooting and pump shop repairs

### Enhanced Safety:

- Reduced SH&E exposure by minimizing site visits
- Reduced SH&E vulnerability due to asset failure

## CONCLUSION

Tank level monitoring using Nalco Champion's DataIQ TLM program provided this customer with visibility into their chemical operations. This provided an operational enhancement that enabled field personnel to proactively optimize performance, reduce costs while mitigating risks.

## GOALZERO

### SAFETY MATTERS

The safety of our associates, customers and communities is vitally important. From the way we operate, to the products we develop, to how we partner with customers, our goal is zero: zero accidents, zero incidents and zero environmental releases.

At Nalco Champion, safety is more than a metric, it's a mindset. It's how we conduct ourselves, every day, everywhere it matters.

Nalco Champion  
Global Headquarters  
7705 Highway 90-A  
Sugar Land, TX 77478 USA  
Telephone: +1-281-632-6500

[nalcochampion.com](https://www.nalcochampion.com)

This document is provided on an "as is" basis without warranties of any kind. NALCO CHAMPION DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR SUITABILITY FOR ANY PURPOSE, TITLE, AND NON-INFRINGEMENT. While reasonable care has been taken in the preparation of this document, Nalco Champion does not represent or warrant that the contents of this document are accurate, complete, reliable, current or error-free.