

**INDUSTRIAL**

“We needed to create wide-range temperature variants for testing down-hole drilling tools. We were clearly outside our area of expertise when we tried to create this solution on our own. After years of working closely with Hunton Services, we knew this would fall within their core competencies. They designed and fabricated an innovative solution that lets us perform more test projects at lower costs – which increases the productivity of testing the down-hole instruments we manufacture.”

– Senior Technologist

PROJECT AT A GLANCE:**- Project Cost:**

\$750,000.00

- Payback:

12 to 18 months

Custom-engineering a highly efficient test-site solution reduces costs, while minimizing equipment downtime.

◆ CHALLENGE

After spending 24 months attempting to develop testing technology that duplicated the extreme temperature conditions downhole instruments are subjected to, one of the world's premier oilfield services providers turned to the trusted resource that had overcome their conventional heating and cooling challenges for years.

The company's test site originally had an electric heating system that used heated bands surrounding their test well to create a high-temperature downhole environment. Since the company had no equivalent system to cool the test well, they routinely sent their equipment out to a third party for such testing – incurring a significant monetary and downtime cost. Total testing costs averaged \$1 million annually at each site with equipment downtime running from one to two weeks per instrument package.

◆ SOLUTION

Hunton Services devised an innovative test-site solution that consisted of a dedicated one million BTU natural gas-fired burner for each of two test wells, a circulating fan with vents, an energy-efficient Trane CGAM 20TR air-cooled chiller, a cooling coil and interconnecting piping. All of which is controlled by a customized digital system that can independently heat one test well and cool another simultaneously to achieve real-world downhole test air temperatures ranging from 25° to 750° F, as needed.

Best of all, the skilled specialists in air movement and temperature control at Hunton Services designed/engineered this entire test site solution in just 90 days.



PRODUCTION COST SAVINGS

Before:

Each test used ~ 200,000 btu of electrical band heating

After:

Now each test uses ~ 1 MBh of direct fired natural gas

Production Savings:

500% greater heating capacity saves ~ \$360,000/year

PROJECT TIME LINE:

- Energy Evaluation/Audit:

January 2013

- Project Started:

March 2013

- Project Completed:

December 2013

- Results Verification:

January 2014



◆ RESULTS

After implementing the new solution – which uses direct-fired natural gas to boost the test site’s heating capacity by 500% – the oilfield services provider can heat a test well with highly efficient vents in just five to six hours, instead of waiting two days for the well’s electric heating bands to reach the desired temperature. This saves about one production day out of four. And the installation of a cooling test well that reaches desired low temperatures in under five hours is an improvement over the three days of unproductive downtime previously required to send equipment out to a third-party tester.

Bottom line: in addition to the significant costs savings the oilfield services provider realized on test wells and equipment downtime, the company now saves approximately \$360,000.00 annually by using 1 MBh of direct-fired natural gas per test, instead of 200,000 btu of electricity to heat its obsolete former test well.

This highly efficient, custom-engineered Hunton Services solution now delivers reduced test-site costs and maximum production.

◆ WHY CHOOSE HUNTON GROUP?

In addition to world-class systems and innovative solutions, The Hunton Group is known for its expert and reliable people. The team that delivers energy efficient HVAC systems, top-notch facility service and parts support, sophisticated open control systems and financial solutions.

◆ FOR MORE INFORMATION, CONTACT:

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