

**Welch Energy Services Report**  
**ORTA Kayseri Factory**  
*December 2010*

Orta pursues many “Best Practices” in energy and water conservation since year 2005. The most visible result of the use of all of these Best Practices is a decrease in the energy use per unit of production (i.e. per meter or Kg of fabric produced.) Indeed, there is an unmistakable trend since 2005 when these Best Practices began to be vigorously pursued.

A review of electricity and gas records since that time shows that the overall reduction **per meter of denim produced** is **approximately 20% in both gas and electricity**.

**Greenhouse gas emissions (CO<sub>2</sub>)** due to the reduced energy consumption are estimated to be **17.2 million Kg per year**.

Water use has steadily declined as well and **water use per meter of denim produces** is currently about **43% below** 2005 levels... Orta does not purchase water, but using less water **reduces demands on local ground water and reduces the amount of sewerage produced**.

At today’s production rates the reduction in water usage and sewerage is equivalent to **1.2 million m<sup>3</sup> per year**. In summary, the aggressive pursuit of Best Practices has resulted in significant reductions in energy use, environmental impact, and operating cost.

As a result Orta’s business practices are more sustainable environmentally and economically.

The Energy Efficiency and Sustainability Status Report prepared by Welch Industries at Dec 23<sup>rd</sup>, 2011 lists and discusses the many “Best Practices” that Orta has pursued in the last 5 year period.

These Best Practices have had the following impacts:

**Reduced Energy Consumption**

- Estimated savings of 8.1 million m<sup>3</sup> of Natural Gas per year.
- Estimated savings of 1.66 million kWh per year

**Reduced Environmental Impacts**

- Reduction of more than 17 million Kg of CO<sub>2</sub> per year
- Reduction of more than 1.2 million m<sup>3</sup> per year of ground water usage and sewerage

The cooperative study conducted by Orta and the *Scientific and Technological Research Council of Turkey (TUBİTAK)* regarding implementation of the EU’s **Best Available Technology** directives has been a guiding force in these efforts.

Welch Energy Services  
Apex, NC, USA  
[www.welchenergyservices.com](http://www.welchenergyservices.com)