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A TEST TO DEMONSTRATE A DIGITAL WEB-BASED OILFIELD DATA COLLECTION SERVICE

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Abstract

The U.S. Department of Energy and HIS Energy tested a web-based field data collection service, FieldDIRECT, at NPR-3. FieldDIRECT provided a way to digitally collect oil and gas data from the field, transfer it quickly, accurately and securely via the Internet, and utilize it immediately to generate executive, operational and administrative reports.

A test to demonstrate a digital web-based oilfield data collection service

HIS Energy contracted with the Rocky Mountain Oilfield Testing Center to test their new product, FieldDirect. The product allows field personnel to quickly collect/transmit daily production and other data for use at the office or any authorized location worldwide. It minimizes errors by eliminating need for data re-entry, and it allows the field operator to focus on other important duties. The system also benefits engineers and operations executives, who can use it to track current production, and generate data needed to diagnose/analyze trends to maximize production.

The service requires minimal up-front investment, and it avoids the downtime and lost productivity that usually accompany adoption of a new data-collection system. Because the system is a service, pricing is cost-effective calculated on a per-well, per-month basis.

Field personnel input the daily water and oil production information from the Tensleep Battery into a handheld computer. These instruments, based on Windows CE, are the size of a small book and weigh less than two pounds. All input is through a simple graphic interface on the screen that includes a map of well locations and the Tensleep Battery. All data was entered with a pen-like stylus using graphic controls on the computer screen. Each day, data was transferred through a secure link using a built-in modem to the FieldDirect Internet database. The system tracts all data coming in from a number of different sources and performs needed allocation and adjustment to bring the data down to an individual well or producing zone.

A Windows application called Production Explorer was installed on a computer in the field and in the office to view daily operational plots/reports. This allows users to view data from any location, as long as Internet connection is available. Data can be exported into other external applications such as Word, Excel, Access, and proprietary corporate databases.