

APPLICATION NOTE

vigilantplant.
The clear path to operational excellence

Flow Monitoring

Industry: Oil & Gas Upstream & Onshore
Product: Measurement & Control

Introduction

Natural gas exploration and production of the rich shale formations in North America is a rapidly growing trend in the onshore Oil & Gas industry. With these ever expanding development activities come the need for improved monitoring technology allowing more efficient operations and to help companies ensure they are following the various environmental regulatory framework. Flow measurement technology has become an integral part of each major service provider's process allowing these companies to profitably keep up with the demanding pace of business today.



Source: Chesapeake Energy Corporation, 2008

Application

Horizontal well drilling and hydraulic fracturing have become a widely used and proven practice to gain access to a broader range of oil and gas reserves in North America. By using the horizontal drilling techniques the operators are able to drill more wells with less disturbance to the surface area.

With the commonly used fracturing process come the requirement for the use of large volumes of water and specialized chemicals formulations to optimize the fracturing process. Each of these constituents is introduced to the process in specific ratios which require repeatable accurate flow measurement for each fracking stage



Solution

Working directly with industry leading Oil & Gas companies, Yokogawa has taken proven Coriolis and Magnetic flowmeter technology to a new level by offering superior technology for the harsh environments.

As the search for Oil & Gas reaches into new remote locations, the truck mounted portable process units require the equipment not only to work when on site, but survive the rough and sometimes nonexistent roadways en-route to site. The Yokogawa AXF series hardened magnetic flow meters are providing superior accuracy making it possible for each fracking operation to use the exact volume of water required for each formulation saving thousands of dollars on each well by maintaining closer ratios. The hardened flow meters also lower asset cost by surviving on the trucks longer than other metering technology. This availability allows the users to get a much higher rate of return on their capital investment.