Practical Onshore Gas-Field Operations
3-Day Course

This course is designed for professionals and field operators interested in the unique challenges associated with Unconventional Gas. The course begins with a discussion of reservoir terminology and basic concepts with emphasis on unconventional gas.

Drilling and completion topics are covered with the goal of understanding the scope of this complex discipline. Topics include drilling equipment, cementing, completions, and stimulation.

Wellbore dynamics are discussed from the point of view of understanding the key operational factors that determine well performance including wellbore deliquification.

The remainder of the course follows the reservoir fluids through the various facilities that the fluids touch on their way to final consumption.

The course is intended to provide a flavor for the range of decisions that must be made to successfully develop unconventional resources. It emphasizes facilities issues that can arise after the gas leaves the coal-face/shale-face.

The examples in the course focus primarily on U.S.A. and Australian operations because these operations are significantly more mature than Unconventional Gas operations in other parts of the world and a more complete life-cycle analysis can be provided from that perspective.

Oil & Gas regulations, including environmental regulations, are very complex and vary widely from jurisdiction to jurisdiction. A comprehensive review of these regulations is beyond the scope of any three-day course, so the limited discussion of regulations in this course is presented from a San Juan County, New Mexico, U.S.A. point of view as an example of the restrictions that can be placed on operations in a mature basin—this class is not intended as a Law-Review Class and regulations are only presented to illustrate the range of issues that can arise.

A complete set of course materials and lunches are included.

Outline

1) Day one
   a) Reservoir basics
   b) Wellbore construction
   c) Well dynamics
2) Day two
   a) Concepts in fluid mechanics
   b) Well site equipment
   c) Gas gathering
3) Day three
   a) Produced water
   b) Compression
   c) Interface to plants
   d) Integration of concepts

Instructor Bio:

Mr. David Simpson has 36 years' experience in Oil & Gas and is currently the Proprietor and Principal Engineer of MuleShoe Engineering. Based in the San Juan Basin of Northern New Mexico, MuleShoe Engineering addresses issues in Coalbed Methane, Low Pressure Operations, Gas Compression, Gas Measurement, Field Construction, Gas Well Deliquification, and Produced Water Management. Prior to forming MuleShoe Engineering, David was a Facilities Engineer for Amoco and BP for 23 years. A Professional Engineer with his Masters degree, David has had numerous articles published in professional journals, has contributed a chapter on CBM to the 2nd Edition of Gas Well Deliquification, by Dr. James Lea, et al. He is a regular contributor to various conferences on Deliquification, CBM, and Low Pressure Operations. He holds a BSIM from University of Arkansas and an MSME from University of Colorado.