Vorenkamp Well Control Training
1167 Oak Harbor
Morgan City, Louisiana 70381
Main: 855-888-0323
Main: 337-451-4685
www.vwellcontroltraining.com

IADC WellSharp Introductory Well Control-Drilling

Course Outline

Prerequisites: This course shall have no formal pre-requisite. The individual should have no history of a disabling medical condition, which may be sufficient reason for disqualification.

Course Length: 8-12 hours - Course is delivered via e-learning, length may vary depending on individual work pace.

Class Size: There are no course size limitations.

Course Objective
The curriculum provides an introduction to well control, designed to educate the worker on the following topics:

- Well Control Equipment
- Units of Measure
- Hydrostatic Pressure
- Pressure Balance
- Causes of Kicks
- Controlling the Well
- Restoring the Well
- The Drillers Well Control Method
- Wait-and-weight Control Method

Course Design

- Narrated e-learning modules

Successful Course Completion

- Requires a minimum score of 75% or better.
- An Immediate retest after review is available or within 45 days of the initial test failure. The delegate must score a 60% or better to qualify for the re-test option.

Course Outline:
Well Control Equipment

- Covers why controlling pressure in the well is important
- The role of drilling fluid in controlling the well
- BOP stacks and how they work
- The function of other equipment used in well control activities.

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- Instrumentation used in well control operations

Units of Measure
- Units of measurement used in the oil field
- Calculating surface area and volume
- Calculating pressure
- The definition of density and how it is measured

Hydrostatic Pressure
- Discusses the linear relationship between depth and pressure and how to calculate it
- The importance of true vertical depth (TVD) and how the hydrostatic pressures in different sections of a well add to determine bottom hole pressure

Pressure Balance
- Discuss how the drill string and annulus can be represented as a U-tube
- Differences between normal, abnormal and subnormal formation pressures, and balancing formation pressures with hydrostatic pressure of the drilling fluid

Causes of Kicks
- Discuss how to identify the different conditions that can cause a kick
- Describe how a kick develops
- Describe the warning signs and the indicators of kicks
  Describe the effects of a gas kick

Controlling the Well
- Discuss the steps involved in shutting in the well when a kick is detected
- How closing the well can be used to increase bottom hole pressure and stop flow
- Why responding quickly to a kick is important, and how migrating gas in a shut-in well effects surface and downhole pressures

Restoring the Well
- Discusses the special problems that kicks from shallow formations present
- Why maintaining constant bottom hole pressure is important when handling a kick, and the steps in two methods used to restore normal circulation

The Drillers Well Control Method
- Provides overview of the Driller's Method
- Provides Step by Step details of the Driller's Method.
- Provides a specific example of an application of the Driller's Method

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- Discuss two Driller's Method rules, and the Driller's Method Worksheet will be introduced.
- Discuss calculations involving shut-in drill pipe pressure (SIDPP) and shut-in casing pressure (SICP), and an explanation of maximum shoe pressure

Wait-and-weight Control Method

- Provides a general description of the Wait-and-Weight Method
- Discusses Drill Pipe Pressure Profile
- Discusses details of Wait-and-Weight Method and discusses the Wait-and-Weight Method worksheet.
- Compares the advantages and disadvantages of the Driller's Method and the Wait-and-Weight Method.

Practical Session

- None

Training Center Provided Material

- Computer Lab

Delegate Requirements

- May require a computer if taken at home or work.
- M&A has a computer lab available for course delivery.

Reference Material / Documents

IADC WellSharp