

College Well Control

College Well Control Course Outline Wild Well



DAY 1

Understand Situational awareness of ongoing Rig operations at all times; Wild Well Control approach to training

Identify & describe typical well control equipment at the drilling well site

Identify and describe surface and drill string equipment/components

Identify and describe Drilling mud processing equipment, mud degassers, Drill string components, accumulators

DAY 2

Understand fluids and their properties specific to well control

Understand how drilling mud is used, mud weight density and types of drilling muds

Identify types of fluids that can be encountered in the field and understand fluid safety

Review pressure basics and concepts and how it applies to well control

Review Formation pressure, formation characteristics, TVD and MD

Review hydrostatic pressure and understand how it serves as a barrier in well control

Calculate hydrostatic pressure

Case History: Perform LOT and FIT and determine how results can affect well control operations; Conduct safety meeting; Demonstration/Simulation

Understand the concept of a kick, recognize immediate and gradual kick warning signs and kick detection

Understand flow check procedures

Understand hard and soft shut in procedures

Case History: taking slow pump rates, recognize kick during drilling operation Perform hard and soft shut in; Conduct safety meeting

Understand U-Tube concept and lag time in relation to pressure transfer

Understand the Driller's method first and second circulation

Case History: Using the Driller's method, circulate out a swabbed kick Conduct Safety meeting

DAY 3

Complete Wild Well killsheet by hand or electronic killsheet to support Wait and Weight case history

Understand the Wait & weight method; perform the following calculations: kill fluid, ICP, FCP. Volume, strokes, time

Case History: Utilize the Wait & Weight method to kill the well

Understand the well as a U-Tube

Understand Shut in Drill pipe Pressure (SIDPP) and Shut in Casing Pressure (SICP) and how to calculate

Recognize stable SIDPP and SICP

Determine kick type and understand kick migration; Gas behavior and solubility; Gas migration, expansion and well control

Recognize uncontrolled gas expansion; gas migration with no expansion and controlled gas expansion

Kick detection in OBM and SOBM

Understand liquid kicks and migration; underground blowouts

Review Hydrogen sulfide toxicity levels; exposure and which organs are affected; minimum hydrogen sulfide safety equipment

Understand that Oil and Gas are regulated by API and IADC

Perform Bottom Hole pressure calculations

20 HOURS
