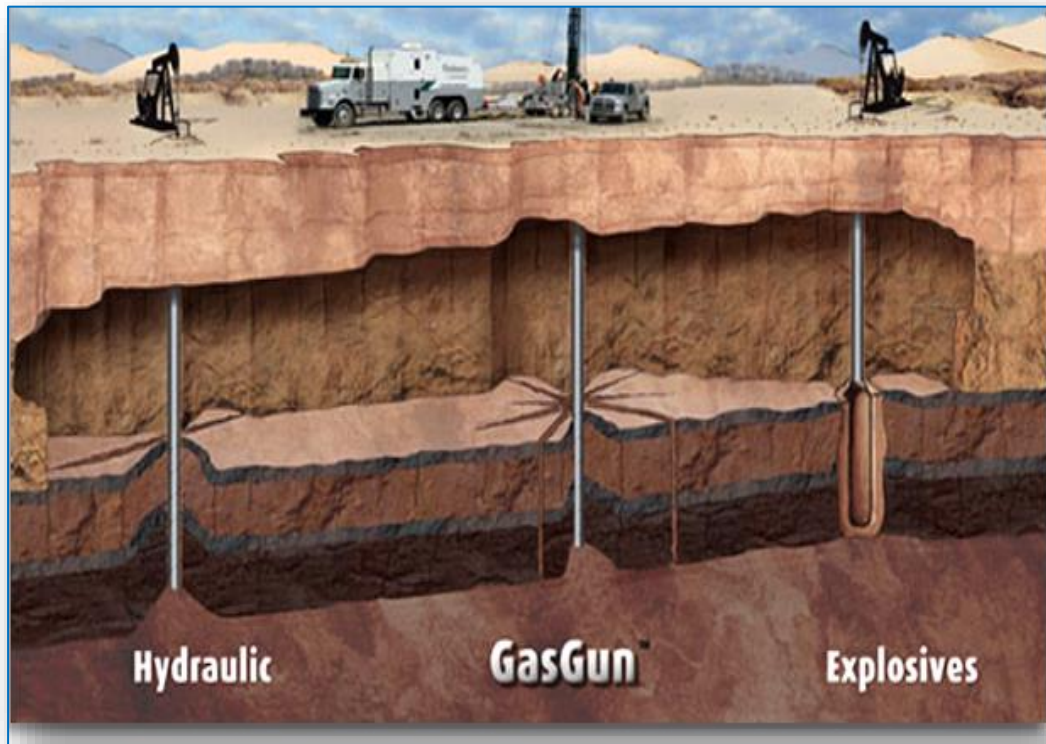




DE167

Well Stimulation Techniques & Treatments

Course Introduction:

Reservoir stimulation deals with well productivity. As a result, a successful stimulation first requires accurate identification of parameters controlling well productivity and the determination of whether or not stimulation can improve production. This is therefore the very first step of the stimulation job design. Well stimulation treatments, which are designed to restore or enhance well productivity, are of two basic types. Matrix treatments are performed at pressures that are below the formation fracture pressure; they are primarily designed to remove near-wellbore damage. Fracture treatments, on the other hand, are performed at pressures above the formation fracture pressure; they are designed to open up highly conductive flow paths between the reservoir and the wellbore, thereby bypassing near-wellbore damage and changing the flow patterns around the well.

This course provides a basic understanding of the types of formations and basic reservoir properties with which we deal as well as developing the basic formation damage, acidifying, and hydraulic fracturing concepts. The course includes acidifying and fracturing quality control, conducting the treatment, monitoring pressures, and other critical parameters, during and after the treatment. This course is designed to cover all aspects of well stimulation. The course includes the basic concepts of well stimulation and its importance in increasing productivity of wells beside it discusses acidizing and fracturing quality control, conducting the treatment, monitoring pressures, and other critical parameters, during and after the treatment.

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- ✓ Understand the types of formations and basic reservoir properties which we deal as well as developing the basic formation damage, acidifying, and hydraulic fracturing concepts
- ✓ Acidifying and fracturing quality control, conducting the treatment, monitoring pressures, and other critical parameters, during and after the treatment
- ✓ Learn the concepts of well stimulation and its importance in increasing productivity of wells beside it discusses acidizing and fracturing quality control, conducting the treatment, monitoring pressures, and other critical parameters, during and after the treatment

Who Should Attend?

This course is intended for Petroleum Engineers, Reservoir Engineers, Production Engineers, Well Service Engineers, Operators, Senior Operators, Junior Engineers, Drilling Engineers, Drilling Supervisors, Geologists, Technologists, Foremen, Technicians, Field supervisors and operations personnel and Anyone involved in the planning, execution and evaluation of well stimulation treatments in conventional as well as unconventional plays, including completion, production, workover, reservoir and drilling personnel.

Course Outline:

Day 1:

- Well Stimulation Foundations
- Well Stimulation Techniques
- The factors that affect well production

Day 2:

- What well stimulation is, and why well stimulation methods are used
- Types of well stimulation methods commonly used
- Coiled Tubing Applications in Stimulation Operations
- Geological basic reservoir properties

Day 3:

- Formation damage: how and why it happens
- Non-acid damage removal techniques
- Acidifying Objectives, types, additives
- Acidifying placement techniques and the pressure chart
- Quality control and safety

Day 4:

- Hydraulic fracturing materials and their importance to success, including gel and slick water treatments
- How different well stimulation methods work
- Safety concerns related to well stimulation methods
- Hydraulic fracturing equipment

Day 5:

- The fracturing chart
- Hydraulic fracturing quality control and safety
- Energized fluids – application and safety

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Fees:

To be advised as per the course location. This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session