

## Well Control Equipment Course

This course is designed for delegates who currently work on BOP Well Control equipment on platforms, jack-ups and land rigs and who need to expand their knowledge of the BOP Well Control equipment on board their vessel. Upon completion of the course the candidate will have a broader working knowledge of the BOP Well Control equipment and will be able to perform maintenance and servicing tasks on the BOP components in a safer and competent manner.

### Course Outline

- Introduction to Well Control
- Ram Preventers
- Annular Preventers
- Gate Valves
- Choke and Kill Manifold
- HPU and Control Systems
- Diverter Systems
- Pressure and Safety

### Who Should Attend

- Drilling Supervisors, Drilling Engineers, Drilling Managers, Tool Pushers, Chief Mechanics, Chief Engineers, Rig Mechanics, Motormen, Rig Crews.

### Course Duration

- 4 Days

### Certification

The course has a pre-test and a final test. The pre-test is not assessable and the final test at the end of the course requires a pass rate of 70%. After successful course completion delegates receive a certificate accredited by International Association of Drilling Contractors Drilling Industry Training (IADC DIT).

### Course Overview

Designed mainly for Jack-ups this course has been set up to provide the industry with a structured programme for training on Well Control equipment.

If you are interested in attending the course or looking for more information about the training please contact

## COURSE CONTENT AIMS AND OBJECTIVES

### SECTION 1: INTRODUCTION TO WELL CONTROL

Understand well control, covering the introduction to ram preventers, annular preventers, gate valves, choke and kill manifold, HPU and diverter system.

### SECTION 2: RAM PREVENTERS

Understand the different types of rams as well as their inspection, maintenance and testing. Gain overview of the various types of clamps for surface stacks and ring gaskets operation, operation of shearing boosters, shear forces and the modern surface stack design features.

### SECTION 3: ANNULAR PREVENTERS

Learn the stack designs, maintenance and testing of annular. Identify the differences between Hydril, Shaffer and Cameron annular preventers.

### SECTION 4: GATE VALVES

Learn the stack configuration with operation and maintenance of gate valves, including Shaffer, Cameron and WOM gate valves.

### SECTION 5: CHOKE AND KILL MANIFOLDS

Identify the arrangements of the choke and kill manifold system, including images, testing and remote choke control system. Gain knowledge about glycol injection and mud gas separators.

### SECTION 6: HPU AND CONTROL SYSTEMS

Identify the components of hydraulic power unit and accumulators. Recognize the appropriate symbols. Outline 5<sup>th</sup> and 6<sup>th</sup> generation HPU systems with examples. Learn the details of fast response surface control systems.

### SECTION 7: DIVERTER SYSTEMS

Understand diverter system components and their requirements, insert type preventers function and diverters maintenance. Gain required level of understanding and skills in reading schematic drawings.

### SECTION 8: PRESSURE AND SAFETY

Gain knowledge about principles of pressure in gas versus liquid environment, hydraulic principles and safety conditions required when working in a potential hazardous environment.