# VORENKAMP WELL CONTROL TRAINING

### **Vorenkamp Well Control Training**

1167 Oak Harbor Morgan City, Louisiana 70381 Main: 855-888-0323 Main: 337-451-4685

www.vwellcontroltraining.com

# IADC WellSharp Well Service Workover & Intervention (OGOR)

#### 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:** 24 hours - Course length shall vary depending on the number of delegates. Total course time includes breaks and meals.

**Class Size:** The maximum number of delegates that may be trained and tested per instructor shall be twelve (12) in the classroom session.

## **Course Objective**

The curriculum identifies a body of knowledge and a set of job skills that can be used to provide well control training for Oil & Gas operations personnel.

#### **Course Design**

- Power Point© / Lecture / Audio Video / Visual Aids
- Demonstrations
- Practical Simulations Exercises
- All students are supported with Laptops for online reviews, sample testing, support
  material, manuals and data sheets. Testing is online controlled by IADC thru their
  website. All support material is soft copied to each student thru thumb drives.

## **Successful Course Completion**

- Requires a minimum score of 75% or better.
- Delegates will have no more than three hours to complete the exam.
- Grades shall be calculated online by IADC and be proctored by Llyod's Registry personnel, all questions are multiple choice.
- 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 Content Summary**

- Classroom
- Practical's

**Breaks:** 10-15 minutes (approximately every 1.5 hours)

# VORENKAMP WELL CONTROL TRAINING

### **Vorenkamp Well Control Training**

1167 Oak Harbor Morgan City, Louisiana 70381 Main: 855-888-0323

www.vwellcontroltraining.com

Main: 337-451-4685

### Course Topics - Day 1

### Safety & Awareness

- Well Control impacts
- Well Integrity
- 24 Hours Operations
- Risk Management
- Pre Job-Communications
- Safety Margins
- Operational Documents
- Environmental Impact
- PCE / Barrier envelope
- WC Operational response
- Well Intervention Prep

#### Well Control Principles & Calculations

- Pressure Fundamentals
- Principles of Tubulars
- Verify Pre-recorded Well Information

#### **Barriers**

- Philosophy and Operation of Barrier Systems
- Levels of Barriers
- Types of Barriers
- Barrier Management
- Testing of DH Completion Equipment
- Pressure Control Equipment (PCE)

#### Well Intervention Equipment

Pressure Control Equipment (PCE)

#### Influx Fundamentals

• Influx Detection

#### Gas Characteristics and Behavior

- Pressure and Volume Relationship Bowles Law
- Wellbore fluids

# Completion and Workover Fluids

• Workover/Completion Fluids Functions

# Vorenkamp Well Control Training



1167 Oak Harbor Morgan City, Louisiana 70381 Main: 855-888-0323

Main: 337-451-4685

www.vwell control training.com

- Liquids
- Fluid Properties
- Fluid Flow Behavior
- Validating Fluid as a barrier in Workover Operations

# General Overview of Surface and Subsurface Wellbore Equipment

- Well Control Stack and Component/Pressure Control Equipment
- Electrical Classification
- Accumulators
- Workstring and Production Tubing
- Internal Wellbore Well Control Equipment
- Plugs and Packers (sealing devices)

#### **Procedures**

- Shut-in M
- Verification of Shut-in M
- Monitoring during Shut-in
- Preparing for Well Entry M
- Pre-operating Procedures
- Well Control Risks in Wireline Operations
- Coil Tubing Failures
- Handling Kill Operations

#### Well Kill in Preparations of Well Intervention

- Methodology of Pressure Control Techniques
- Bulkheading
- Volumetric Method
- Lube and Bleed
- Conventional Circulation (Forward) Method
- Reverse Circulation M
- Pump Startup and Shutdown Procedure

# Course Topics – Day 2

### **Special Situations**

- Blockages & Trapped Pressure in Tubing/Wellbore
- Blockages & Restricted Access in Tubing/Wellbore
- Hydrates
- H2S Considerations

# Vorenkamp Well Control Training



1167 Oak Harbor Morgan City, Louisiana 70381 Main: 855-888-0323

Main: 337-451-4685

www.vwell control training.com

- Managing Change during a Well Kill
- Complication with Hydraulic Fracturing Operation
- Drilling Operations
- Wireline Shear Seals
- Rig-up
- Planned Responses to Anticipated Well Control Scenarios

#### Well Control Drills

# Coil Tubing Pressure Control Equipment

- Dynamic PCE
- Static PCE

#### General Overview of Surface and Subsurface Wellbore Equipment

Accumulators

#### **Procedures**

- Shut-in
- Verification of Shut-in
- Preparing for Well Entry
- Contingency Procedures for CT

### **CT Operational Considerations**

- CT and Injector Operational Considerations
- CT Considerations

#### Special Situations

- Blockages & Trapped pressure in Tubing/Wellbore
- Hydrates
- H2S considerations
- Drilling Operations
- Planned Responses to Anticipated WC Scenarios

#### Well Control Drill

## **Snubbing Curriculum**

- Snubbing barriers
- Stripper Assemblies
- Snubbing Pressure Control Equipment

General Overview of Surface and Subsurface Wellbore Equipment

# **Vorenkamp Well Control Training**



1167 Oak Harbor Morgan City, Louisiana 70381 Main: 855-888-0323

www.vwellcontroltraining.com

Main: 337-451-4685

Well Control Stack and Components/Pressure Control Equipment M

Accumulators

#### **Procedures**

- Shut-in
- Verification of Shut-in
- Preparing for Well Entry

## Course Topics - Day 3

## **Special Situations**

- Blockages & Trapped Pressure in Tubing/Wellbore
- Hydrates
- H2S considerations
- Drilling Operations M
- Rig-up
- Planned Responses to Anticipated Well Control Scenarios M

#### Well Control Drills

## Wireline Pressure Control Equipment

- Control Heads (Dynamic PCE)
- Lubricator (Dynamic PCE)
- Wireline Ram Assembly (Static PCE)
- Additional Static PCE

# General Overview of Surface and Subsurface Wellbore Equipment

Accumulators

#### **Procedures**

- Shut-in
- Verification of Shut-in
- Preparing for Well Entry
- Wireline Open Hole Operations
- Rigging up and Deployment into Well
- Contingency Procedure for Wireline
- Well Control Risks in WL Operations

#### **Special Situations**

• Blockages & Trapped Pressure in Tubing/Wellbore

# VORENKAMP WELL CONTROL TRAINING

# Vorenkamp Well Control Training

1167 Oak Harbor Morgan City, Louisiana 70381 Main: 855-888-0323 Main: 337-451-4685

www.vwellcontroltraining.com

- Hydrates
- H2S considerations
- Drilling operations
- Wireline Shear Seals
- Fishing Wireline
- Planned Responses to Anticipated WC Scenarios

#### Well Control Drills

## **Testing**

#### **Practical Session**

• Shall verify skills using table top exercises and interactive digital simulation.

# **Training Center Provided Material**

Course Materials

# **Delegate Requirements**

None

## **Reference Material / Documents**

IADC WellSharp API STANDARD 53 API 16 ST 30 CFR 250.617