COURSE OVERVIEW DE0517
Kick Indicators & Initial Response

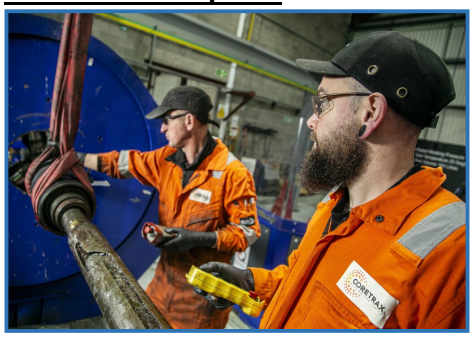
Course Title
Kick Indicators & Initial Response

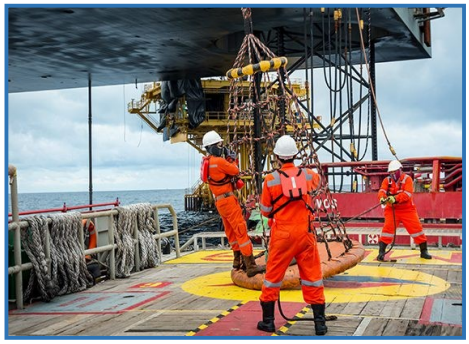
Course Date/Venue
Session 1: July 06-10, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
Session 2: December 08-12, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference
DE0517

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Description





This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

This course is designed to provide participants with a detailed and up-to-date overview on Well Control Kicks, Causes & Calculations. It covers the well control principles and the importance of maintaining wellbore stability; how kick occur and the consequences of uncontrolled kicks; the basic well hydraulics, causes of kicks, early detection of kicks and role of blowout preventer (BOP); the kick detection methods, kick indicators and kick tolerance; the shut-in procedures and surface pressure calculations; and the data collection during kicks, kick calculations and kill mud weight calculation.

Further, the course will also discuss the well control methods, driller's method, wait and weight method and volumetric well control method; the casing pressure calculations during well control; the well control equipment and use of chokes, mud pumps and mainfolds in well control; the dynamic control techniques in high-risk situations and the advantages and limitations of dynamic methods; the behavior of gas in the wellbore and control; assessing the situational and making real-time decision; and the human factors and communication in well control situations.

During this intellective course, participants will learn the implementation of well control contingency planning and define the roles and responsibilities of well control operations team during a well control event; and identifying risk associatesd with well kicks, mitigate risik and ensure safety, review step- by-step well control procedures and discuss regulatory requirments and industry standards for well control.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain a comprehensive knowledge on kicks, causes and calculations of well control
- Discuss well control principles and the importance of maintaining wellboare stability
- Define kick and how it occures and identify the consequences of uncontrolled kicks
- Recognize besic well hydraulics, causes of kicks, detecting kicks early and role of blowout preventer (BOP)
- Carryout kick detection methods, kick indicators, kick tolerance and shut-in procedures
- Apply surface pressure calculations, data collection during kicks, kick calculations and kill mud weight calculation
- Illustrate well control methods, driller's method, wait and weight method and volumetric well control method
- Perform casing pressure calculations during well control and identify well control equipment and the use of chokes, mud pumps, and mainfolds in well control
- Apply dynamic control techniques in high-risk situations and discuss the advantages and limitations of dynamic methods
- Describe the behavior of gas in the wellbore and control gas migration and kicks as well as assess the situation, make real-time decision and identify the human factors and communication in well control situations
- Implement well control contingency planning and define the roles and responsibilities of well control operations team during a well control event
- Identify risk associatesd with well kicks, mitigate risks and ensure safety, review step-by-step well control procedures and discuss regulatory requirments and industry standards for well control

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations on well control kicks, causes and calculations for drillers, assistant drillers, rig supervisors, engineers, company man/toolpusher, safety personnel, field specialists, training coordinators, regulatory and compliance officers, and new drilling personnel.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the module who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Mr. Stan Constantino, MSc, BSc, is a **Senior Petroleum & Reservoir Engineer** with over **40 years** of **Offshore & Onshore** extensive experience within the **Oil, Gas & Petroleum** industries**.** His area of expertise include **Cased Hole Logging**, Advanced Petrophysics/Interpretation of **Cased Hole Logs**, **Cased Hole Formation Evaluation**, **Cased Hole Formation** Evaluation, **Cased Hole Evaluation**, **Cased-Hole Logging**, Applied **Production Logging & Cased Hole & Production Log** Evaluation, **Cased Hole Logging & Formation** Evaluation, Open & Cased Hole Logging, **Fractured Reservoir** Classification & Evaluation, Screening of Oil Reservoirs for **Enhanced Oil Recovery**, **Oil Reservoir** Evaluation & Estimation, **Reserves & Resources**, **Reserves Estimation** & **Uncertainty**, **Reserve** Evaluation, **OIP Estimation & Range** of **Uncertainty**, **Reservoir** Characterization, **Water Flooding**, **Reservoir** Souring & Water Breakthrough, **Reservoir Performance** Using Classical Methods, **Fractured Reservoir** Evaluation & Management, **Reservoir Surveillance** & Management, **Reservoir Engineering** & Simulation, **Reservoir Monitoring**, **Pressure Transient** Testing & **Reservoir** Performance Evaluation, **Reservoir** Characterization, **Reservoir** Engineering Applications with ESP & Heavy Oil, **Reservoir** Volumetrics, Water Drive **Reservoir**, **Unconventional Resource & Reserves** Evaluation, **Oil & Gas Reserves** Estimation, **Petrophysics & Rock** Properties**, Seismic** Technology, **Geological** Modelling, **Water Saturation**, **Crude Oil & Natural Gas** Demand, **Exploration Agreements & Financial** Modelling, **Seismic Survey** Evaluation, **Exploration Well** Identification, **Field Production** Operation, **Field Development** Evaluation, Crude Oil Marketing, **Core & Log Data** Integration, **Core Logging**, Advanced **Core & Log Integration**, **Well Logs & Core Analysis**, **Enhanced Oil Recovery**, **Enhanced Oil Recovery** Techniques, **Petroleum Economic** Analysis, **Oil Industry** Orientation, **Oil Production & Refining**, **Crude Oil Market**, **Global Oil Supply & Demand**, **Global Oil Reserves**, **Crude Oil** Types & Specifications, **Oil Processing**, **Oil Transportation-Methods**, **Oil & Gas** Exploration and Methods, **Oil & Gas** Extraction, Technology Usage in Industrial Security; **Upstream**, **Midstream** & **Downstream Operations**; **Oil Supply & Demand**, **Oil Contracts**, **Government Legislation & Oil Contractual Agreements**, **Oil Projects** & Their Feasibility (revenue and profitability), Rock & Fluid Properties, Fluid Flow Mechanics, PVT Analysis, Material Balance, Darcy's Law & Applications, Radial Flow, **Gas Well** Testing, Natural Water Influx, EOR Methods, Directional Drilling, **Drilling** Production & Operations, Field Development & Production of Oil & Gas, **Wireline Logging**, **Mud Logging**, **Production Logging**, **Slick Line**, **Coil Tubing**, Exploration Wells Evaluation, **Horizontal Wells**, **Well Surveillance**, **Well Testing**, **Design & Analysis**, **Well Testing & Oil Well Performance**, **Well Log Interpretation** (**WLI**), **Formation Evaluation**, **Well Workover Supervision**, **Pressure Transient Analysis** and **Petrophysical Log Analysis**. Currently, he is the **CEO** & **Managing Director** of **Geo Resources Technology** wherein he is responsible in managing the services and providing technical supports to underground energy related projects concerning **field development**, **production**, **drilling**, **reservoir engineering** and **simulation**.

Throughout his long career life, Mr. Stan has worked for many international companies such as the **Kavala Oil**, **North Aegean Petroleum Company** and **Texaco Inc.**, as the **Managing Director**, **Operations Manager**, **Technical Trainer**, **Training Consultant**, **Petroleum Engineering & Exploration Department Head**, **Assistant Chief Petroleum Engineer**, **Reservoir Engineer, Resident Petroleum Engineer**, **Senior Petroleum Engineer** and **Petroleum Engineer** wherein he has been managing the evaluation of exploration wells, reservoir simulation, development training, production monitoring, wireline logging and well testing including selection and field application of well completion methods.

Mr. Stan has a **Master's** degree in **Petroleum Engineering** and a **Bachelor's** degree in **Geology** from the **New Mexico Institute of Mining & Technology** (**USA**) and from the **Aristotelian University** (**Greece**) respectively. Further, he is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership of Management (ILM**) and a member of the Society of Petroleum Engineers, USA (**SPE**), Society of Well Log Professional Analysts, USA (**SPWLA**) and European Association of Petroleum Geoscientists & Engineers (**EAGE**). Moreover, Mr. Stan published numerous scientific and technical papers and delivered various trainings, courses and workshops worldwide.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Fee

US$ 8,000 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 - 0930	***Introduction to Well Control*** *Overview of Well Control Principles ● Importance of Maintaining Wellbore Stability*
0930 – 0945	*Break*
0945 – 1100	***Understanding Kicks*** Definition of a Kick and How it Occurs ● Consequences of Uncontrolled Kicks
1100 – 1145	***Basic Well Hydraulics*** *Well Pressure Concepts (Formation, Hydrostatic, and Surface Pressures) ● Introduction to Mud Weight and Its Role in Well Control*
1145-1230	***Causes of Kicks*** *Improper Mud Weight ● Formation Characteristics and Fracture Gradients*
1230 – 1245	*Break*
1245 – 1330	***Detecting Kicks Early*** *Identifying Early Signs of Kicks ● Importance of Accurate Pressure Readings and Observations*
1330 - 1420	***Role of Blowout Preventer (BOP)*** *Overview of BOP Components ● BOP Activation and Role in Preventing Blowouts*
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0830	***Kick Detection Methods*** *Mud Logging and Monitoring ● Common Warning Signs of Kicks During Drilling Operations*
0830 - 0930	***Kick Indicators*** *Pit Gain and Flow Rate Changes ● Pressure and Drilling Parameters that Indicate Kicks*
0930 – 0945	*Break*
0945 – 1100	***Kick Tolerance*** *Understanding the Kick Tolerance of a Well ● Calculating Safe Operational Limits*
1100 – 1230	***Shut-In Procedures*** *Steps for Safely Shutting in a Well During a Kick ● Communication During Emergency Shutdown*
1230 – 1245	*Break*
1245 – 1330	***Surface Pressure Calculations*** *Determining Surface Pressures Post-Shut-In ● Calculating Surface Pressures Required for Maintaining Well Control*
1330 - 1420	***Data Collection During Kicks*** *Data Acquisition Techniques During a Kick Event ● Importance of Accurate Recording and Documentation*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0830	***Fundamentals of Kick Calculations*** *Introduction to the Mathematical Aspects of Kick Management ● Calculating Kick Volumes and Pressures*
0830 - 0930	***Kill Mud Weight Calculations*** *Determining Kill Mud Weight ● Practical Exercises on Kill Weight Calculations*
0930 – 0945	*Break*
0945 – 1100	***Well Control Methods Overview*** *Introduction to the Various Well Control Methods (e.g., Driller's Method, Wait and Weight Method)*
1100 – 1230	***Driller's Method*** *Step-by-Step Explanation of the Driller's Method ● Practical Exercises and Scenarios*
1230 – 1245	*Break*
1245 – 1330	***Wait & Weight Method*** *Detailed Breakdown of the Wait and Weight Method ● Comparison with the Driller's Method*
1330 - 1420	***Volumetric Well Control Method*** *Explanation of Volumetric Well Control Techniques ● Application in Special Situations, such as Low-Pressure Zones*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

0730 – 0830	***Casing Pressure Calculations*** *Importance of Casing Pressures in Well Control ● Performing Casing Pressure Calculations During Well Control*
0830 - 0930	***Surface & Subsurface Equipment*** *Review of Well Control Equipment Beyond BOPs ● Use of Chokes, Mud Pumps, and Manifolds in Well Control*
0930 – 0945	*Break*
0945 – 1100	***Dynamic Well Control*** *Application of Dynamic Control Techniques in High-Risk Situations ● Advantages and Limitations of Dynamic Methods*
1100 – 1230	***Gas Migration & Handling*** *Understanding the Behavior of Gas in the Wellbore ● Techniques for Controlling Gas Migration and Kicks*
1230 – 1245	*Break*
1245 – 1420	***Decision-Making During Kicks*** *Assessing the Situation and Making Real-Time Decisions • Human Factors and Communication in Well Control Situations*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5

0730 – 0830	***Well Control Contingency Planning*** *Importance of having a Well Control Plan ● Components of a Comprehensive Well Control Contingency Plan*
0830 – 0930	***Well Control Operations Team*** *Roles and Responsibilities During a Well Control Event ● Communication and Coordination During Emergencies*
0930 – 0945	*Break*
0945 – 1100	***Risk Assessment & Mitigation in Well Control*** *Identifying Risks Associated with Well Kicks ●Techniques for Mitigating Risks and Ensuring Safety*
1100 – 1230	***Well Control Procedures Review*** *Reviewing Step-by-Step Well Control Procedures ● Practical Exercises on Implementing Well Control Strategies*
1230 – 1245	*Break*
1245 – 1345	***Regulatory & Industry Standards*** *Overview of Regulatory Requirements for Well Control ● Compliance with Industry Standards (e.g., API, IADC)*
1345 – 1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-

Course Coordinator

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