COURSE OVERVIEW DE0975
Stuck Piping & Fishing Operations

Course Title
Stuck Piping & Fishing Operations

Course Date/Venue
Session 1: February 23-27, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar
Session 2: August 24-28, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar

Course Reference
DE0975

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 an up-to-date overview of stuck pipe prevention and fishing operation. It covers the fishing technology and the stuck pipe mechanisms; the workover planning and problem recognition; the water control problem and the various types of problems; the drilling fluids optimization; the fishing for parted pipe and fishing cavities; the fishing options in horizontal wells and the fishing for junk; the wash-over and jarring operations; and the types of fishing jars.

During this interactive course, participants will learn the jar placement program operating instructions; the cased hole fishing and stuck tubing, causes and solutions; the functions and components of packer; the casing repair, coiled tubing fishing operations and fishing; the wire line and the methods in string recovery; the job planning and its components; and the economics of fishing.

Course Objectives

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

- Apply and gain an in-depth knowledge on stuck piping prevention and fishing operation
- Define fishing technology and discuss the stuck pipe mechanisms
- Determine the workover planning and recognize the problem
- Identify the water control problem and employ the various types of problems
- Explain the drilling fluids optimization
- Discuss the fishing for parted pipe and fishing cavities including milling operations and free point
- Enumerate the fishing options in horizontal wells and recognize the fishing for junk
- Illustrate the wash-over and jarring operations and identify the types of fishing jars
- Explain the weatherford jar placement program operating instructions
- Discuss the cased hole fishing and stuck tubing, the causes and solutions
- Explain the packer including its functions and components
- Distingush the casing repair, coiled tubing fishing operations and fishing
- Determine the wire line and employ the methods in string recovery
- Explain the job planning and its components including the economics of fishing

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 of stuck pipe prevention and fishing operation for drilling operations section leaders, drilling engineering supervisors, well engineers, petroleum engineers, well servicing/workover/ completion staff and field production staff.

Course Fee

US$ 8,500 per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

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

Course Certificate(s)

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

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations:

- 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.

- 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.

Course Instructor

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. Samer Shukri, BSc, IWCF, is a **Senior Drilling & Petroleum Engineer** with over **25 years** of **offshore** and **onshore** experience in the **Oil** & **Gas**, **Refinery** & **Petrochemical** industries. His wide expertise includes **Workovers & Completions**, **Well Completion** Design & Operations, **Well Intervention**, **Well Life Cyle**, **Well Stimulation** & **Workover** Planning, **Workover** Practices, **Workover** Operations, **Well Integrity** System, **Well Control**, **Oil & Water Wells**, **Workover/Remedial** Operations & **Heavy Oil** Technology, Plug & Abandonment of **Oil & Gas Wells**, **Petroleum** Engineering, **Open Hole & Cased Hole Logs**, **Petroleum Risk & Decision** Analysis, **Well Testing** Analysis, **Stimulation** Operations, **Coiled Tubing** Operations, **Coiled Tubing Equipment**, **Rigless** Operations, **Reserves Evaluation**, **Reservoir Fluid** Properties, **Reservoir** Engineering & Simulation Studies, **Reservoir** Monitoring, **Geology & Reservoir** Engineering, **Artificial Lift Design**, **Gas** Operations, **Applied Water** Technology, **Oil & Gas Production**, **X-mas Tree** & **Wellhead** Operations & **Testing**, **Wellbore Design & Construction**, **Drilling Fluids & Solids Control**, **Drilling Fluids & Cementing** Operations, **Drilling Practices & Techniques**, **Well Control & Blow Out Prevention**, **Stuck Piping & Fishing** Operations, **Rig Equipment** Maintenance & Inspection, **Rigging & Lifting** Operations, **WellCAP** Driller, **WellCAP** Supervisor, **Artificial Lift** Systems (**Gas Lift**, **ESP** and **Rod Pumping**), **Well Cementing**, **Oil Field Cementing**, **Production Optimization**, **PLT** Correlation, **Slickline** Operations, **Well Testing**, **Production Logging**, **Wireline Logging**, **Wireline** Technology, **Wireline Fishing** Operations, **Project Evaluation** & **Economic Analysis**. Further, he is also well-versed in Marine Environment Protection, Maritime Professional Training, Operational Audit, Improvement, Planning & Management, Climate Change & Emissions Trading Services, International Trade & Shipping, **Fitness for Service-API 579**, **Refining Process & Petroleum** Products, **OSHA** (General Industry & Construction), **IOSH** (Managing Safely, Working Safely), **HSE** Standards & Procedures in the Oilfield, HSE Principles, Incident Prevention & Incidents, Working at Height, **First Aid**, **H2S** Awareness, Defensive Driving, Risk Assessment, Authorized Gas Tester (**AGT**), Confined Space Entry (**CSE**), Root Cause Analysis (**RCA**), Negotiation & Persuasion Skills, **ISO-9001** Quality Management System (**QMS**), ISO-14001 Environmental Management System (**EMS**), **ISO-45001** Occupational Health and Safety Management System (**OHSMS**), **ISO-17020** Conformity Assessment, ISO/TS-29001 Quality Management System, **IOS-50001**-Energy Management System (**EnM**S) and Basic Offshore Safety Induction & Emergency. Currently, he is actively involved in **Project Management** with special emphasis in **commissioning of new wells**, **completion design**, **well integrity** management, **production technology** and field optimization, performing conceptual studies, economic analysis with risk assessment and field development planning.

During his career life, Mr. Samer has gained his field experience through his various significant positions and dedication as the **Senior Production Engineer**, **Well Services Department Head**, **Senior Well Services Supervisor**, **Senior Well Integrity Engineer**, **Senior HSE Engineer**, **Well Services Supervisor**, **Drilling/Workover Supervisor**, **International oil & Gas Trainer**, **Leadership & Management Instructor** and **Senior Instructor/Trainer** from the various international companies such as the ADCO, Al Furat Petroleum Company (AFPC), Syrian Petroleum Company (SPC), Petrotech, Global Horizon-UK, HDTC, Petroleum Engineers Association, STC, Basra University and Velesto Drilling Academy, just to name a few.

Mr. Samer has **Bachelor's** degree in **Petroleum Engineering**. Further, he is an **Accredited IWCF Drilling & Well Intervention Instructor**, a **Certified Instructor/Trainer**, a **Certified Train-the-Trainer** and further delivered innumerable training courses, seminars, conferences and workshops worldwide.

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 – 0900	***Fishing Technology*** *What's Fishing? ● Objectives ● Observations ● Stuck Pipe Mechanisms ● Identify the Cause of the Problem*
0900 – 0930	***Stuck Pipe Mechanisms*** *Objectives ● Observations ● The Common Causes of Stuck ● Identify the Cause ● Differential Sticking ● Differentially Stuck Pipe ● Differentially Sticking Spreadsheet ● Preventative Action ● Methods used in Freeing Differentially Stuck Pipe ● Differential Sticking Force ● Using Lubricators ● Jarring the Pipe Loose ● "U" Tube Technique ● Differential Sticking Operational Procedures ● Unconsolidated Formations ● Preventative Actions ● Filtrate Reducers ● Key Seat ● Surface Jars ● Preventive Action ● Standard Single Clutch Key Seat Wiper ● Standard Double Clutch Key Seat Wiper*
0930 – 0945	*Break*
0945 – 1100	***Workover Planning & Problem Recognition*** *What is a Workover? ● Workover Methods ● Reasons for Working Over a Well ● Service Unit Functions ● Workover Rigs Functions ● What is the Tools used for Well Analysis? ● Well Analysis Tools ● Characteristic of Problem Wells*
1100 – 1230	***Water Control Problem Identification & Solutions Problem Types*** *Water Production Mechanisms ● Well Analysis ● The Well Maintenance ● Requirements for a Completion ● Workover Types ● Stimulation ● Workover Involving Drilling ● Workover Operations ● Summary of Common Problems & Workover Operations*
1230 - 1245	*Break*
1245 – 1420	***Drilling Fluids Optimization*** *Selection of Fluid Type ● Rheology ● Gels ● Inhibition ● Well Bore Stability/Inhibition ● Inadequate Hole Cleaning ● Mud Lubricity - Torque and Drag Reduction ● Filtration Control/Differential Sticking ● Solids Control Management ● Torque and Drag ● String Torque ● Mechanical Torque Factors ● Bit Torque*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day One*

Day 2

0730 – 0930	***Fishing for Parted Pipe*** *How the Pipe Parted ● Causes of Parted Pipe ● Planning the Fishing Job ● Lead Blocks Parted Pipe ● Dress and Catch Fish in Trip ● Tapered Mill Guide ● Skirted Mill ● Bottom Hole Assembly Options ● Desirable Characteristics for an Attachment Tool ● Screw In ● Screw in Accessory ● Overshots ● Packoffs ● Spears and Accessories ● Reversing Tool ● Taps*
0930 – 0945	*Break*

0945 – 1100	***Fishing in Cavities*** *Fishing in Cavities ● Too Much Weight ● Eliminates Other Options ● Getting Over Fish With Wash Pipe ● Don't Side Track ● Fishing in Cavities ● Getting Over TOF ● Function of Trahan Bushing ● Trahan Bushing ● How to Apply ● Other Options ● Shorten Wash Pipe ● Cripple Shoe ● Re-Top Fish with Spear ● Kick Sub ● Re-Top Fish with Kick Sub ● Mule Shoe Bent Joint*
1100 - 1230	***Milling Operations*** *Milling Applications ● Milling Rotary Speeds ● Weight on Mills ● For Rotary Shoe the Formula is ● Optimizing Cutting Returns ● Junk Milling Operations ● Mud Conditioning for Milling ● How to Read Cuttings ● Some Factors that Affect Milling Rates ● What to Do about Rubber in the Hole? ● Stabilizing the Mill ● What to Do about Rough Operation? ● Mills ● Cone Buster/Flat Bottom Mills ● Bladed Mill ● Insert Dressed Bladed Junk Mill ● Pilot Mill/Lower Connection Type ● Milling Rates: Surface Feet/Minute ● Bowen Ditch Magnets ● Mills Review*
1230 – 1245	*Break*
1245 – 1420	***Free Point*** *Mills Review ● Calculations for Free Point in Stuck Drill Pipe – Single or Tapered Strings ● Est. Stuck Pt. = Tapered String ● Formula for Tapered String ● Example Estimated Stuck Point ● Observation ● Results of Formula ● Method # 2 ● Example ● Results of Formula*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Two*

Day 3

0730 – 0930	***Fishing Options in Horizontal Wells*** *Economics - When to Quit Fishing? ● Free-point and Pipe Recovery ● Catching a Fish in a Horizontal Well ● Jarring Options and Placement ● Jar Placement and Impact/Impulse Calculations ● Wash-over Operation in Horizontal Wells*
0930 – 0945	*Break*
0945 – 1100	***Fishing for Junk*** *Best Fishing Procedures ● Exercise 1 ● Ways to Fish for Junk ● Exercise 2 ● Fishing Magnet ● Running Magnets ● Boot Basket ● Weatherford Type P Boot Basket ● Finger Catchers ● Operation: Core Basket ● Core Type Basket ● Reverse Circulation/Jet Junk Basket ● Venturi Jet Junk Basket ● Venturi Jet System ● Junk Shot ● Poor Boy Basket ● Finger Type Shoe ● Dimple Type Shoe ● Spring Tine Type Shoe ● Spring Tine Basket ● Exercise 3*
1100 – 1230	***Wash Over Operations*** *Stuck Pipe Flowchart ● Jar or Wash Over? ● Running Washpipe ● Wash Over Pipe ● Hole Conditions ● Washpipe Comparison Chart ● Standard Washover Assembly ● Equipment List for a Wash Over ● Stripping Fish From a Wash Pipe Using a Backoff Connector ● Stripping Stand with Bowl and Slips ● Wash Over Crooked Pipe ● Hydril 511 Connections ● True Circle Tong Bushing ● Closed: True Circle Tong Bushing ● Shoe Selection ● Tooth Type Washover Shoe ● Scalloped Bottom Washover Shoe ● Five Tooth Type L Rotary Shoe ● Carbide Dressed Drag Type A Shoe ● Type J Tooth Type Shoe ● Type K Tooth Type Shoe ● Type B Scallop Bottom Shoe ● Type F Scallop Bottom Shoe ● Type F Flat Bottom Shoe ● Flat Bottom Type M Shoe ● Type E Flat Bottom Shoe ● Mule Shoe ● Tool Joints Stuck ● Kick Pad in Shoe ● Rotary Shoe*

1230 – 1245	*Break*
1245 – 1345	***Jarring Operations*** *Jarring Force ● Preferring Impact or Impulse? ● The Force of the Jarring Blow ● Hydraulic Jar ● Mechanical Jars Tripping ● The Combined Effect of the Load and Duration is Called Impulse ● Changing Impact and Impulse*
1345 - 1420	***Types of Fishing Jars*** *Hydraulic Fishing Jars ● Fishing Bumper Jar ● Dailey HyPulse Jar Slinger ● Mechanical Drilling Jars ● Fishing String ● Jar Placement: Vertical Hole or Less Than 30° ● Directional Hole > 30° ● Pump Open Force ● Calculating Trip Load-Mechanical Jar ● Reasons for Jar Failure ● Rules of Thumb for Drilling Jars ● Exercise 2: Jar Case Study ● Jarring While WO O ● Stuck B.H.A ● Free Point, Backoff, and Jar ● Running Free Point and Jar ● Jarring on Fish*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Three*

Day 4

0730 – 0830	***Weatherford Jar Placement Program Operating Instructions*** *Program Overview ● General Data Entry ● Drill String Data Entry ● General Jarring Analysis Data Entry ● Output Explanation ● Example 2 with Slinger ● Summary Notes on Jar Placement*
0830 – 0930	***Cased Hole Fishing*** *Potential Problems in Cased Hole*
0930 – 0945	*Break*
0945 – 1030	***Stuck Tubing: Causes and Solutions*** *Mud Stuck Tubing ● Free Point Readings ● Sand Stuck Tubing ● Inside-Outside Backoff Collar ● Washover Operations in Cased Hole ● H.E. Washover External Cutter ● Cutter Capacity ● Blind Backoff ● Bowen External Cutter ● Bowen Outside Cutter ● Bowen Hydraulic External Cutter*
1030 – 1130	***Packer*** *Function ● Components ● Mechanical Set Packer ● Setting ● Types ● Retrieving Tools ● Retrieving Spear ● Bottom Catch Packer Retrieving Spear ● Top Catch Packer Retrieval Spears ● Pioneer Slick Bore Packer Retrieval Spear ● Pioneer Hydraulic-Release Packer Retrieval Spear ● Things to Consider ● Rotary Shoes ● Dimensions and Lengths ● Well Schematic ● Multiple Strings ● Mule Shoe Joint with "No-Go" ● 2 3/8" O.D. Special Washdown Mill ● Clean out Between Packers ● A-5 Packer*
1130 - 1230	***Casing Repair*** *Causes of Casing Failures ● Types of Casing Failures ● Collapsed & Parted Casing ● Casing Inspection Logs ● RTTS Packer ● Lead Impression Block ● Down Hole Video ● Bowen Casing Rollers ● Eastman Whipstock Casing Rollers ● Swage Construction ● Swaging Tool ● Casing Swage ● Casing Repair Video ● External Casing Patches ● Bowen Lead Seal Casing Patch Components ● Bowen Packer Type Casing Patch ● Bowen Packer Type Casing Patch – Exploded View ● Dressing Mill ● Mechanical Internal Cutter ● Inside Mechanical Cutter ● Homco Internal Casing Patch ● Standard Patch Features ● Patch Selection ● Prior to Running a Patch ● Picking up the Patch ● Case Study ● Operating Procedures*
1230 – 1245	*Break*

1245 - 1345	***Coiled Tubing Fishing Operations*** *What Is Coiled Tubing? ● Coiled Tubing Usage ● Advantages of Coiled Tubing ● Advantage of Fishing with Coiled Tubing*
1345 - 1420	***Fishing*** *Overshot ● Spear ● Wire Line Catcher ● Recovering Tools with Downhole Vibration Technology ● Recovering Tools with Hydraulically Activated Fishing Tools ● Well Cleaning ● Debris Catching ● Under-reaming ● Mechanical Scale Removal ● Fishing with Downhole Vibration Technology ● Cutting Pipe*
1420 – 1430	***Recap*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow*
1430	*Lunch & End of Day Four*

Day 5

0730 – 0930	***Wireline*** *Wireline – Open Hole ● Wireline – Cased Hole ● Types of Wirline Fishing ● Procedures in Wireline Fishing ● Perform Test Pull ● Cable Guide Method – Attached Clamp and Derrick ● Cable Guide Fishing Method ● Cable Guide Fishing Assembly ● Tool Caught in Overshoot ● Cable Guided Method - Dress Fishing Overshot ● Cable Guided Method -Operating Procedure ● Cable Guided Method -Operating Procedure ● Cable Guided Method - Potential Hazards ● Cable Guided Method - Line Only Stuck ● Cable Guided Method – Procedure ● Pressure Required to Rupture Disks in Pump Out Sub ● Cable Guided Method - Government Requirements ● Side Door Overshoot Method ● Side Door Over shot Method - Inserting the Grapple ● When not to use the Side Door Overshot Method ● Fishing for Parted Wire Line ● Fishing for Parted Wire Line - Engagement With Spear ● Cable Specifications ● Stretch Example ● Determining the Top of Wire Line ● Fishing for Parted Wire Line - Engagement With Spear ● Fishing for Parted Wire Line - Balled Up Wire ● Fishing for Parted Wire Line – Precautions*
0930 – 0945	*Break*
0945 – 1100	***String Recovery Methods*** *Freeing Stuck Pipe ● When to Give Up Attempts to Free Pipe ● Determining the Estimated Stuck Point ● Procedures to Measure Stretch ● Using the Tapered String Formula ● Procedures for Making a Blind Back-off ● Determining More Precise Stuck Point ● Making a Wash-over and Back-off ● Choosing the Wash Over Pipe ● Selection a Rotary Shoe ● Typical Washover Bottom Hole Assembly ● Where to Back-off? ● Example Calculation ● What is the Maximum Pull on 5" DP @ Surface?*
1100 - 1230	***Job Planning*** *Job Planning & Record Keeping ● Components of Job Planning ● Fishing Cost Analysis ● Ascertaining the Difficulty of the Job ● Determining How Long to Fish ● Cost of Fishing ● Cardinal Rules of Fishing ● Fish in Hole ● Maximum OD of Tools That Can be Washed Over ● In and Out Method ● K.B. Measurements/Elevation ● Official Well Depth ● Tally Book Rules ● Tally Book Well Data ● Tally Book: Window Milling ● Example: Tally Book ● Trip# 1 @ 2:00 pm 2-4-98 Union Oil ● Poorly Written Job Resum*

1230 - 1245	*Break*
1245 – 1345	***Economics of Fishing*** *Options/Cased Hole/Open Hole ● Economics of Fishing ● Matter of Economics*
1345 – 1400	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
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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