

COURSE OVERVIEW DE0057
Petrel Well Design and Well Placement

Course Title

Petrel Well Design and Well Placement

Course Date/Venue

Session 1: February 09-13, 2025/Boardroom 1,
 Elite Byblos Hotel Al Barsha, Sheikh
 Zayed Road, Dubai, UAE

Session 2: August 11-15, 2025/Fujairah Meeting
 Room, Grand Millennium Al Wahda
 Hotel, Abu Dhabi, UAE



Course Reference

DE0057



Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description



This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.



This course is designed to provide participants with a detailed and up-to-date overview of Petrel Well Design and Well Placement. It covers the capabilities of Petrel software, user interface, well data and basic maps and sections; the reservoir interpretation and mapping; importing and interpreting seismic data, attribute cubes and reservoir; the well design and placement concepts; and the importance and factors effecting of well placement in reservoir development.



During this interactive course, participants will learn the Petrel well design tools and workflows; the well paths and well trajectory planning; modeling wellbore stability and well completion design; optimizing well placement and utilizing Petrel's optimization tools for well placement; the production and economic performance for different well placement scenarios; the well placement for unconventional reservoirs; utilizing Petrel's tools for unconventional well placement optimization offshore reservoirs; interpreting offshore well; and the unique challenges and considerations for offshore well placement.

Course Objectives

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

- Apply and gain an in-depth knowledge on Petrel well design and well placement
- Discuss the capabilities of Petrel software, navigate Petrel user interface, import and manage well data and create basic maps and sections
- Illustrate reservoir interpretation and mapping, import and interpret seismic data and create and interpret attribute cubes and apply reservoir interpretation and mapping
- Recognize well design and placement concepts and discuss the importance and factors effecting of well placement in reservoir development
- Identify Petrel well design tools and workflows, create well paths and well trajectory planning and illustrate modeling wellbore stability and well completion design
- Optimize well placement, utilize Petrel’s optimization tools for well placement and analyze production and economic performance for different well placement scenarios
- Develop unconventional reservoir, discuss well placement for unconventional reservoirs and utilize Petrel’s tools for unconventional well placement optimization
- Interpret offshore well including the unique challenges and considerations for offshore well placement

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Howard 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 Petrel well design and well placement for drilling engineers, geologists, geophysicists, reservoir engineers, production engineers, petrophysicists and those who are involved in the planning and drilling of oil and gas wells.

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.

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: -

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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.

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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 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.

Accommodation

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



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:

	<p>Dr. Chris Kapetan, PhD, MSc, is a Senior Petroleum Engineer with over 30 years of international experience within the onshore and offshore oil & gas industry. His wide experience covers Asset Management Principles, Risks & Economics, Petroleum Economics, Decision Analytic Modelling Methods for Economic Evaluation, Probabilistic Risk Analysis (Monte Carlo Simulator) Risk Analysis Foundations, Global Oil Demand, Crude Oil Market, Global Oil Reserves, Oil Supply & Demand, Governmental Legislation, Contractual Agreements, Financial Modeling, Oil Contracts, Project Risk Analysis, Feasibility Analysis Techniques, Capital Operational Costs, Oil & Gas Exploration Methods, Reservoir Evaluation, Extraction of Oil & Gas, Crude Oil Types & Specifications, Sulphur, Sour Natural Gas, Natural Gas Sweetening, Petroleum Production, Field Layout, Production Techniques & Control, Surface Production Operations, Oil Processing, Oil Transportation-Methods, Flowmetering & Custody Transfer and Oil Refinery. Further, he is also well-versed in Enhanced Oil Recovery (EOR), Electrical Submersible Pumps (ESP), Oil Industries Orientation, Geophysics, Cased Hole Formation Evaluation, Cased Hole Applications, Cased Hole Logs, Production Operations, Production Management, Perforating Methods & Design, Perforating Operations, Fishing Operations, Well & Reservoir Testing, Reservoir Stimulation, Hydraulic Fracturing, Carbonate Acidizing, Sandstone Acidizing, Drilling Fluids Technology, Drilling Operations, Directional Drilling, Artificial Lift, Gas Lift Design, Gas Lift Operations, Petroleum Business, Field Development Planning, Gas Lift Valve Changing & Installation, Well Completion Design & Operation, Well Surveillance, Well Testing, Well Stimulation & Control and Workover Planning, Completions & Workover, Rig Sizing, Hole Cleaning & Logging, Well Completion, Servicing and Work-Over Operations, Practical Reservoir Engineering, X-mas Tree & Wellhead Operations, Maintenance & Testing, Advanced Petrophysics/Interpretation of Well Composite, Construction Integrity & Completion, Coiled Tubing Technology, Corrosion Control, Slickline, Wireline & Coil Tubing, Pipeline Pigging, Corrosion Monitoring, Cathodic Protection as well as Root Cause Analysis (RCA), Root Cause Failure Analysis (RCFA), Gas Conditioning & Process Technology, Production Safety and Delusion of Asphalt. Currently, he is the Operations Consultant & the Technical Advisor at GEOTECH and an independent Drilling Operations Consultant of various engineering services providers to the international clients as he offers his expertise in many areas of the drilling & petroleum discipline and is well recognized & respected for his process and procedural expertise as well as ongoing participation, interest and experience in continuing to promote technology to producers around the world.</p> <p>Throughout his long career life, Dr. Chris has worked for many international companies and has spent several years managing technically complex wellbore interventions in both drilling & servicing. He is a well-regarded for his process and procedural expertise. Further, he was the Operations Manager at ETP Crude Oil Pipeline Services where he was fully responsible for optimum operations of crude oil pipeline, workover and directional drilling, drilling rigs and equipment, drilling of various geothermal deep wells and exploration wells. Dr. Chris was the Drilling & Workover Manager & Superintendent for Kavala Oil wherein he was responsible for supervision of drilling operations and offshore exploration, quality control of performance of rigs, coiled tubing, crude oil transportation via pipeline and abandonment of well as per the API requirements. He had occupied various key positions as the Drilling Operations Consultant, Site Manager, Branch Manager, Senior Drilling & Workover Manager & Engineer and Drilling & Workover Engineer, Operations Consultant, Technical Advisor in several petroleum companies responsible mainly on an offshore sour oil field (under water flood and gas lift) and a gas field. Further, Dr. Chris has been a Professor of the Oil Technology College.</p> <p>Dr. Chris has PhD in Reservoir Engineering and a Master's degree in Drilling & Production Engineering from the Petrol-Gaze Din Ploiesti University. Further, he is a Certified Surfaced BOP Stack Supervisor of IWCF, a Certified Instructor/Trainer, a Certified Trainer/Assessor/Internal Verifier by the Institute of Leadership & Management (ILM) and has conducted numerous short courses, seminars and workshops and has published several technical books on Production Logging, Safety Drilling Rigs and Oil Reservoir.</p>
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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	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	Introduction to Petrel & Its User Interface <i>Petrel Software & Its Capabilities • Navigating the Petrel User Interface • Importing & Managing Well Data • Creating Basic Maps & Sections</i>
0930 – 0945	<i>Break</i>
0945 – 1115	Reservoir Interpretation & Mapping <i>Importing & Interpreting Seismic Data</i>
1115 – 1215	Reservoir Interpretation & Mapping (cont'd) <i>Creating & Interpreting Attribute Cubes</i>
1215 – 1230	<i>Break</i>
1230 – 1420	Reservoir Interpretation & Mapping (cont'd) <i>Reservoir Interpretation & Mapping</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0930	Well Design & Placement Overview <i>Well Design & Placement Concepts • Importance of Well Placement in Reservoir Development</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Well Design & Placement Overview (cont'd) <i>Factors Affecting Well Placement</i>
1100 – 1230	Petrel Well Design Tools & Workflows <i>Well Design Tools in Petrel</i>
1230 – 1245	<i>Break</i>
1245 – 1420	Petrel Well Design Tools & Workflows (cont'd) <i>Creating Well Paths & Well Trajectory Planning</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>

Day 3

0730 – 0930	Petrel Well Design Tools & Workflows (cont'd) <i>Modeling Wellbore Stability & Well Completion Design</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Drilling & Completion Simulations <i>Drilling Simulations in Petrel</i>
1100 – 1230	Drilling & Completion Simulations (cont'd) <i>Modeling Drilling Fluid Behavior & Drilling Mechanics</i>
1230 – 1245	<i>Break</i>
1245 – 1420	Drilling & Completion Simulations (cont'd) <i>Simulating Well Completion & Production Operations</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Three</i>

Day 4

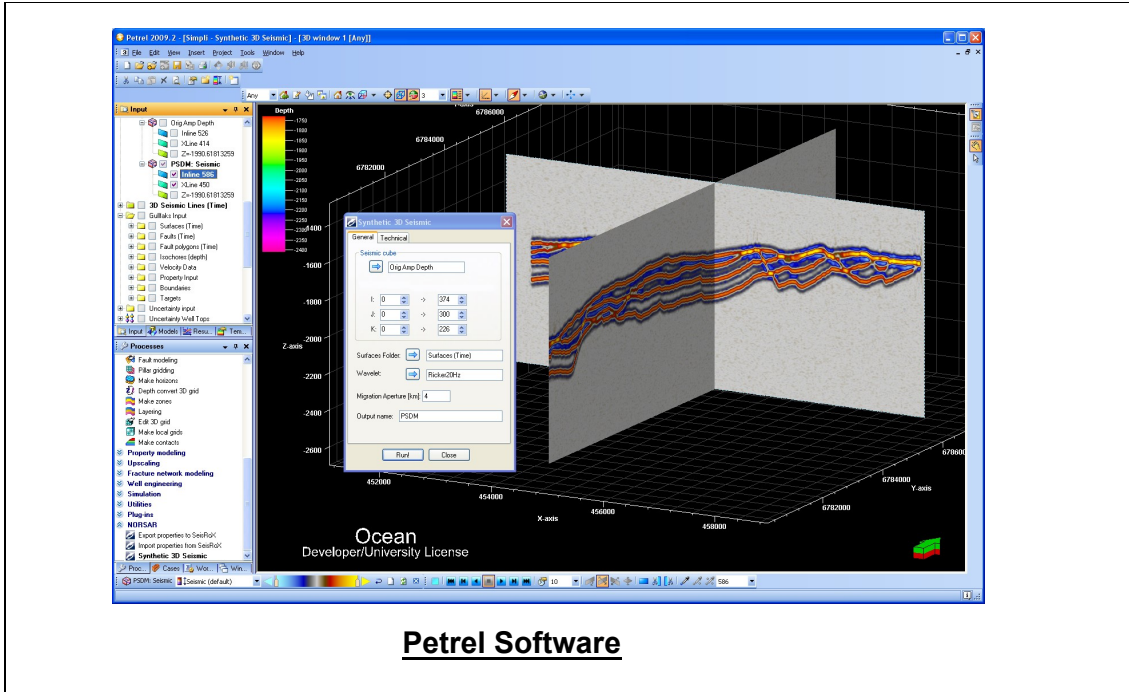
0730 – 0930	Well Placement Optimization <i>Well Placement Optimization Concepts • Utilizing Petrel's Optimization Tools for Well Placement</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Well Placement Optimization (cont'd) <i>Analyzing Production & Economic Performance for Different Well Placement Scenarios</i>
1100 - 1230	Well Placement for Unconventional Reservoirs <i>Unconventional Reservoir Development • Well Placement Considerations for Unconventional Reservoirs</i>
1230 – 1245	<i>Break</i>
1245 - 1420	Well Placement for Unconventional Reservoirs (cont'd) <i>Utilizing Petrel's Tools for Unconventional Well Placement Optimization</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day Four</i>

Day 5

0730 – 0930	Well Placement for Offshore Reservoirs <i>Offshore Well Placement • Unique Challenges & Considerations for Offshore Well Placement</i>
0930 – 0945	<i>Break</i>
0945 - 1100	Well Placement for Offshore Reservoirs (cont'd) <i>Utilizing Petrel's Tools for Offshore Well Placement Optimization</i>
1100 – 1230	Case Studies & Hands-On Exercises <i>Case Studies on Well Placement Optimization in Different Reservoirs • Hands-On Exercises Using Petrel to Optimize Well Placement in Various Reservoirs</i>
1230 – 1245	<i>Break</i>
1245 - 1345	Conclusion & Wrap-Up <i>Review of Key Concepts & Topics Covered in the Course • Discussion of Best Practices for Well Placement in Different Reservoirs</i>
1345 – 1400	Course Conclusion
1400 – 1415	POST-TEST
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>

Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the “Petrel” software.



Course Coordinator

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