

**COURSE OVERVIEW DE0519**  
**Play Based Exploration**

**Course Title**

Play Based Exploration

**Course Date/Venue**

Session 1: July 20-24, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Session 2: December 22-26, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE



**Course Reference**

DE0519

**Course Duration/Credits**

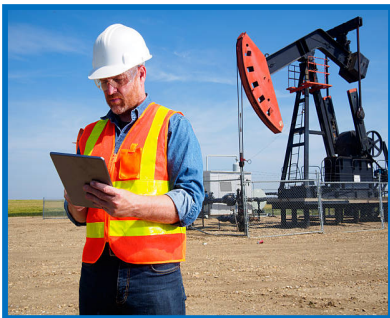
Five days/3.0 CEUs/30 PDHs



**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 Play Based Exploration. It covers the petroleum system elements comprising of source rocks, reservoirs, seals and traps; the exploration plays and their role in petroleum exploration; the geological setting of play types and play fairway analysis; the integration of geological, geophysical and geochemical data; the geological mapping techniques for play identification and seismic interpretation for play mapping; the well logs and core data for refining play analysis; the geological risk factors like source, seal and migration; quantifying resources in play-based exploration; and the advanced seismic technologies in play exploration.



Further, the course will also discuss the basin evolution and play development, depositional environments, reservoir prediction and hydrocarbon migration pathways; the integrity of traps and seals within plays; using geographic information systems to map play fairways; the quantitative methods for assessing exploration risk; managing multiple plays in exploration portfolios; integrating financial analysis with geological risk; the strategies to mitigate exploration risks; and the tools and techniques for making go/no-go decisions.

During this intellectual course, participants will learn the probabilistic recoverable volumes in play-based exploration; the non-conventional resources like shale gas and tight oil; the techniques and challenges in deepwater play analysis; using machine learning and artificial intelligence in play-based exploration; the digital transformation in play-based exploration; managing the environmental and social risks of play-based exploration; and the emerging trends and future challenges in global exploration plays.

### **Course Objectives**

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

- Apply and gain an in-depth knowledge on play based exploration
- Identify the petroleum system elements covering source rocks, reservoirs, seals and traps
- Define exploration plays and their role in petroleum exploration
- Discuss geological setting of play types and apply play fairway analysis and integration of geological, geophysical and geochemical data
- Illustrate geological mapping techniques for play identification and seismic interpretation for play mapping
- Use well logs and core data for refining play analysis and evaluate geological risk factors like source, seal and migration
- Quantify resources in play-based exploration and discuss advanced seismic technologies in play exploration
- Determine basin evolution and play development, depositional environments, reservoir prediction and hydrocarbon migration pathways
- Assess the integrity of traps and seals within plays and use geographic information systems to map play fairways
- Carryout quantitative methods for assessing exploration risk, manage multiple plays in exploration portfolios and integrate financial analysis with geological risk
- Develop strategies to mitigate exploration risks and apply tools and techniques for making go/no-go decisions
- Estimate probabilistic recoverable volumes in play-based exploration and explore non-conventional resources like shale gas and tight oil
- Identify the techniques and challenges in deepwater play analysis and use machine learning and artificial intelligence in play-based exploration
- Discuss the digital transformation in play-based exploration, manage the environmental and social risks of play-based exploration and discuss the emerging trends and future challenges in global exploration plays

### **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 on play based exploration for exploration and development geologists, geophysicists, geochemists, petroleum engineers, reservoir engineers, productions engineers, drilling engineers, managers and technical personnel.

### 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 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. Konstantin Zorbalas, MSc, BSc, is a Senior Petroleum Engineer & Well Completions Specialist with over 25 years of offshore and onshore experience in the Oil & Gas, Refinery & Petrochemical industries. His wide expertise includes Workovers & Completions, Petroleum Risk & Decision Analysis, Acidizing Application in Sandstone & Carbonate, Well Testing Analysis, Stimulation Operations, Reserves Evaluation, Reservoir Fluid Properties, Reservoir Engineering & Simulation Studies, Reservoir Monitoring, Artificial Lift Design, Gas Operations, Workover/Remedial Operations & Heavy Oil Technology, Applied Water Technology, Oil & Gas Production, X-mas Tree & Wellhead Operations & Testing, Artificial Lift Systems (Gas Lift, ESP, and Rod Pumping), Well Cementing, Production Optimization, Well Completion Design, Sand Control, PLT Correlation, Slickline Operations, Acid Stimulation, Well testing, Production Logging, Project Evaluation & Economic Analysis.** Further, he is actively involved in **Project Management** with special emphasis in production technology and field optimization, performing conceptual studies, economic analysis with risk assessment and field development planning. He is currently the **Senior Petroleum Engineer & Consultant of National Oil Company** wherein he is involved in the mega-mature fields in the Arabian Gulf, predominantly carbonate reservoirs; designing the acid stimulation treatments with post-drilling rigless operations; utilizing CT with tractors and DTS systems; and he is responsible for gas production and preparing for reservoir engineering and simulation studies, well testing activities, field and reservoir monitoring, production logging and optimization and well completion design.

During his career life, Mr. Zorbalas worked as a **Senior Production Engineer, Well Completion Specialist, Production Manager, Project Manager, Technical Manager, Technical Supervisor & Contracts Manager, Production Engineer, Production Supervisor, Production Technologist, Technical Specialist, Business Development Analyst, Field Production Engineer and Field Engineer.** He worked for many world-class oil/gas companies such as **ZADCO, ADMA-OPCO, Oilfield International Ltd, Burlington Resources** (later acquired by **Conoco Phillips**), **MOBIL E&P, Saudi Aramco, Pluspetrol E&P SA, Wintershall, Taylor Energy, Schlumberger, Rowan Drilling and Yukos EP** where he was in-charge of the **design and technical analysis** of a gas plant with capacity **1.8 billion m<sup>3</sup>/yr gas**. His achievements include **boosting oil production 17.2% per year** since 1999 using **ESP and Gas Lift systems**.

Mr. Zorbalas has **Master and Bachelor** degrees in **Petroleum Engineering** from the **Mississippi State University, USA**. Further, he is an **SPE Certified Petroleum Engineer, Certified Instructor/Trainer, a Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management (ILM)**, an active member of the **Society of Petroleum Engineers (SPE)** and has numerous scientific and technical publications and delivered innumerable training courses, seminars 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® (Howard 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	<i>Registration &amp; Coffee</i>
0800 – 0815	<i>Welcome &amp; Introduction</i>
0815 – 0830	<b>PRE-TEST</b>
0830 – 0930	<b>Introduction to Petroleum System Elements: Overview of Source Rocks, Reservoirs, Seals &amp; Traps</b>
0930 – 0945	<i>Break</i>
0945 – 1030	<b>Understanding Plays &amp; Prospects: Defining Exploration Plays &amp; their Role in Petroleum Exploration</b>
1030 – 1200	<b>Geological Setting of Play Types: Continental, Marine &amp; Transitional Play Types</b>
1200 – 1215	<i>Break</i>
1215 – 1300	<b>Play Fairway Analysis: Key Steps in Identifying &amp; Mapping Exploration Plays</b>
1300 – 1400	<b>Integration of Geological, Geophysical &amp; Geochemical Data: Utilizing Multiple Data Sources for Play Analysis</b>
1400 -1420	<b>Case Studies of Successful Play Exploration: Reviewing Case Studies from Different Basins</b>
1420 - 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day One</i>

#### **Day 2**

0730 – 0830	<b>Geological Mapping Techniques for Play Identification: Creating Regional Maps to Outline Plays</b>
0830 – 0930	<b>Seismic Interpretation for Play Mapping: How to Use Seismic Data to Identify Structural &amp; Stratigraphic Plays</b>

0930 – 0945	Break
0945 – 1100	<b>Well Data Integration in Play Definition:</b> Using Well Logs & Core Data for Refining Play Analysis
1100 – 1215	<b>Play Risking &amp; Ranking:</b> Evaluating Geological Risk Factors Such as Source, Seal & Migration
1215 – 1230	Break
1230 – 1400	<b>Quantifying Resources in Play-Based Exploration:</b> Techniques for Volumetric Resource Assessment
1400 -1420	<b>Advanced Seismic Technologies in Play Exploration:</b> 3D Seismic, AVO & Other Seismic Techniques for Play Evaluation
1420 - 1430	<b>Recap</b>
1430	Lunch & End of Day Two

**Day 3**

0730 – 0830	<b>Understanding Basin Evolution &amp; Play Development:</b> How Tectonic Settings Influence Play Creation
0830 – 0930	<b>Depositional Environments &amp; Reservoir Prediction:</b> Linking Depositional Models to Reservoir Quality & Play Success
0930 – 0945	Break
0945 – 1100	<b>Hydrocarbon Migration Pathways:</b> Identifying Migration Patterns & Timing in Plays
1100 – 1215	<b>Trap &amp; Seal Effectiveness in Plays:</b> Assessing the Integrity of Traps & Seals Within Plays
1215 – 1230	Break
1230 – 1420	<b>Modeling Play Fairways Using GIS Tools:</b> Using Geographic Information Systems to Map Play Fairways
1420 - 1430	<b>Recap</b>
1430	Lunch & End of Day Three

**Day 4**

0730 – 0830	<b>Assessing Play &amp; Prospect Risk:</b> Quantitative Methods for Assessing Exploration Risk
0830 – 0930	<b>Play Portfolio Strategy Development:</b> Managing Multiple Plays in Exploration Portfolios
0930 – 0945	Break
0945 – 1100	<b>Economic Evaluation of Plays:</b> Integrating Financial Analysis with Geological Risk
1100 – 1215	<b>Play Risk Management:</b> Developing Strategies to Mitigate Exploration Risks
1215 – 1230	Break
1230 – 1400	<b>Decision-Making in Play-Based Exploration:</b> Tools & Techniques for Making Go/No-Go Decisions
1400 -1420	<b>Using Probabilistic Resource Estimates for Plays:</b> Estimating Probabilistic Recoverable Volumes in Play-Based Exploration
1420 - 1430	<b>Recap</b>
1430	Lunch & End of Day Four

**Day 5**

0730 – 0830	<b>Unconventional Plays &amp; Frontier Exploration:</b> Exploring Non-Conventional Resources Such as Shale Gas & Tight Oil
0830 – 0930	<b>Advanced Play-Based Exploration in Deepwater &amp; Offshore Areas:</b> Techniques & Challenges in Deepwater Play Analysis

0930 - 0945	Break
0945 - 1100	<b>Innovative Exploration Technologies in Play Assessment: Using Machine Learning &amp; Artificial Intelligence in Play-Based Exploration</b>
1100 - 1145	<b>Digital Transformation in Play-Based Exploration: Leveraging Big Data &amp; Digital Tools for Play Evaluation</b>
1145 - 1215	<b>Environmental &amp; Social Considerations in Play-Based Exploration: Managing the Environmental &amp; Social Risks of Play-Based Exploration</b>
1215 - 1230	Break
1230 - 1345	<b>Future Trends &amp; Challenges in Play Exploration: Emerging Trends &amp; Future Challenges in Global Exploration Plays</b>
1345 - 1400	<b>Course Conclusion</b>
1400 - 1415	<b>POST-TEST</b>
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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