



HARNESS THE POWER
OF KNOWLEDGE

Carbonate Reservoirs: Unveiling the Secrets of Hydrocarbon Treasure Troves

TRAIN



Introduction:

Embark on a 5-day professional training journey to uncover the captivating realm of carbonate reservoirs, the hidden gems of the petroleum industry

Designed for aspiring and experienced petroleum geologists, geophysicists, and engineers, this course will delve into the intricate geological processes, diverse rock types, and remarkable reservoir characteristics of carbonate formations

Through hands-on field experiences, interactive lectures, and in-depth discussions, you will gain a profound understanding of carbonate reservoir exploration, characterization, and production optimization strategies

Course Objectives

By the end of this course, you will be able to:

- Comprehend the geological evolution and depositional environments of carbonate reservoirs
- Identify and classify the diverse rock types and pore systems that characterize carbonate reservoirs
- Analyze the diagenetic processes that influence the porosity and permeability of carbonate reservoirs
- Apply carbonate reservoir characterization techniques using well logs, seismic data, and core analysis
- Develop effective exploration strategies and production optimization plans for carbonate reservoirs

Course Agenda

Day 1: Introduction to Carbonate Reservoirs and Their Geological Significance

- Journey through the geological timeline to understand the formation and distribution of carbonate reservoirs
- Explore the unique characteristics of carbonate depositional environments, including reefs, lagoons, and shoals
- Gain insights into the diagenetic processes that transform carbonate sediments into reservoir rocks

Day 2: Rock Types and Pore Systems in Carbonate Reservoirs

- Delve into the diverse rock types that comprise carbonate reservoirs, including limestones, dolomites, and calcarenites
- Classify carbonate pore systems based on their origin, geometry, and connectivity
- Analyze the impact of diagenetic alterations on carbonate pore systems and reservoir quality

Day 3: Carbonate Reservoir Characterization Techniques

- Master the art of carbonate reservoir characterization using well logs, seismic data, and core analysis
- Interpret well log signatures to identify carbonate rock types, pore systems, and fluid content
- Utilize seismic data to map carbonate reservoir geometries and identify potential hydrocarbon traps
- Analyze core samples to assess porosity, permeability, and reservoir heterogeneity

Day 4: Exploration Strategies for Carbonate Reservoirs

- Develop effective exploration strategies to discover and delineate carbonate reservoirs
- Identify potential carbonate play types based on geological and geophysical data
- Apply seismic facies analysis and biostratigraphy to refine carbonate reservoir interpretations

Day 5: Production Optimization of Carbonate Reservoirs

- Understand the challenges and opportunities associated with carbonate reservoir production
- Implement strategies to optimize well performance and enhance hydrocarbon recovery
- Address potential reservoir management issues such as waterflooding, acid stimulation, and fracture stimulation

Who Should Attend

This course is designed for:

- Aspiring petroleum geologists seeking hands-on experience in carbonate reservoir characterization and exploration
- Geophysicists involved in seismic interpretation and basin modeling for carbonate reservoirs
- Petroleum engineers responsible for reservoir evaluation, well planning, and production optimization
- Individuals interested in gaining a comprehensive understanding of carbonate reservoirs and their economic

significance

Course Benefits

- Gain a thorough understanding of the geology, petrophysics, and engineering aspects of carbonate reservoirs
- Develop practical skills in carbonate reservoir characterization, exploration, and production optimization
- Expand your knowledge of the latest advancements and trends in carbonate reservoir management
- Enhance your ability to communicate carbonate reservoir concepts effectively to stakeholders and decision-makers
- Stay updated on the latest discoveries and developments in the exploration and exploitation of carbonate reservoirs