WELL SURVEILLANCE SRP APPLICATIONS

TRAINIT ACADEMY

Dprt131 Drilling, Reservoir & Petroleum Training

COURSE TITLE

WELL SURVEILLANCE SRP APPLICATIONS

COURSE DATE/ VENUE

2nd - 6th DEC 24'

London, UK

COURSE REFERENCE

DPRT131

COURSE DURATION

05 days

DISCIPLINE

Drilling, Reservoir & Petroleum Training

COURSE INTRODUCTION

This comprehensive course has been meticulously crafted to provide you with an in-depth understanding of the intricacies surrounding the optimization of heavy oil production through the strategic use of artificial lift systems. Whether you are a seasoned professional seeking to enhance your expertise or someone new to the field, this course will equip you with the knowledge, tools, and practical insights needed to excel in heavy oil production operations.

Throughout the course, we will journey together through a series of modules, each designed to build your expertise systematically. From understanding the fundamentals of heavy oil production to delving into the various types of artificial lift systems, we will explore reservoir and fluid characterization, system design, installation, monitoring, and maintenance. Furthermore, we will dive into the critical aspect of optimization, where you will learn how to harness data-driven strategies to enhance production efficiency while ensuring safety and environmental compliance.

Real-world case studies and practical applications will provide you with valuable insights into successful heavy oil production optimization, allowing you to apply these lessons to your own projects and operations. We will also explore emerging technologies and future trends, keeping you prepared for the evolving landscape of the industry.

By the end of this course, you will not only have a profound understanding of heavy oil production and artificial lift systems but also the skills to contribute to the sustainability and profitability of your heavy oil ventures.

Join us on this enlightening journey as we uncover the secrets to optimizing heavy oil production using artificial lift systems, and let's work together to unlock the full potential of heavy oil reservoirs in today's energy landscape.

COURSE OBJECTIVE

Upon successful completion of this course, the delegates will be able to:

- Gain a comprehensive understanding of heavy oil production, its challenges, and the critical role played by artificial lift systems in enhancing production efficiency.
- Become proficient in the selection, design, installation, and maintenance of various artificial lift systems used in heavy oil reservoirs.
- Develop the skills to effectively analyze reservoir and fluid properties specific to heavy oil, enabling informed decision-making in artificial lift system implementation.
- Master optimization strategies for maximizing production rates, minimizing operational costs, and ensuring the longevity of artificial lift systems.
- Acquire knowledge of safety and environmental considerations, adhering to health, safety, and environmental (HSE) regulations in heavy oil production.
- Explore real-world case studies and best practices, enabling participants to apply their learnings to practical scenarios and problem-solving.
- Stay up-to-date with emerging technologies and future trends in heavy oil production and artificial lift systems, preparing them for the evolving industry landscape

COURSE AUDIENCE

- This course is designed for a wide range of professionals and experts in the Oil and Gas industry, including:
- Production Engineers: Professionals responsible for optimizing production rates and improving operational efficiency in heavy oil reservoirs.
- Reservoir Engineers: Those involved in reservoir management, characterization, and modeling for heavy oil production.
- Facility Managers: Individuals overseeing the design, installation, and maintenance of production facilities in heavy oil fields.

- Project Managers: Professionals leading heavy oil production projects who need a comprehensive understanding of artificial lift systems.
- Petroleum Engineers: Engineers involved in the planning, design, and implementation of artificial lift systems.
- Health, Safety, and Environmental (HSE) Personnel: Experts responsible for ensuring regulatory compliance and sustainable practices in heavy oil production.
- Technicians and Field Operators: Personnel involved in the day-to-day operations and maintenance of artificial lift systems.
- Anyone seeking to enhance their knowledge and expertise in heavy oil production and artificial lift systems, whether they are newcomers to the field or experienced professionals looking to broaden their skill set.

COURSE CONTENT

Day One:

- Understanding Inflow and Outflow Dynamics in Heavy Oil Production
- Examining Heavy Oil Reservoir Performance: A Comprehensive Overview of Wellbore and Reservoir Dynamics
- Analysis of Pressure Loss in the Wellbore
- Evaluating Well Productivity and the Role of Productivity Index
- Exploring Inflow and Outflow Relationships in Heavy Oil Reservoirs

Day Two:

- Artificial Lift Technology and Its Application
- Overview of Various Artificial Lift Technologies: Including Sucker Rod Pump Design, Hydraulic Pump Design, Jet Pump, Gas Lift, and Electric Submersible Pump (ESP)
- Application of Artificial Lift Technology and Recognizing Its Limitations
- Methods for Screening and Selecting the Appropriate Artificial Lift System

Day Three:

- Sucker Rod Pumping Strategies for Heavy Oil
- Understanding the Core Principles of Sucker Rod Pumping
- Analyzing the Limitations and Advantages of Sucker Rod Pumping Systems
- Exploring the Components and Design Considerations of Sucker Rod Pumps
- Troubleshooting Common Issues in Sucker Rod Pump Systems

Day Four:

- Progressing Cavity Pump (PCP) Systems for Cold Heavy Oil Production
- Delving into the Concept of Progressing Cavity Pump (PCP) Systems

- Assessing the Limitations and Advantages of PCP Systems
- Best Practices for the Installation and Maintenance of PCP Pumps
- Troubleshooting Techniques for PCP Pumps
- Exploring Innovative Technologies in PCP Pumping

Day Five:

- Electric Submersible Pump (ESP) Systems
- Understanding the Fundamentals of Electric Submersible Pump (ESP) Systems
- Analyzing ESP Equipment and Accessories
- ESP System Design: Including Pump Performance Curves, Pump Intake Curves, Typical Problems, Installation Best Practices, and Troubleshooting
- Principles for Proper Sizing of ESP Systems, Covering Pump, Motor, and Cable
- Emphasizing the Significance of Matching Well Productivity with Pump Performance

COURSE CERTIFICATE

TRAINIT ACADEMY will award an internationally recognized certificate(s) for each delegate on completion of training.

COURSE FEES

£5,750 per Delegate. This rate includes participant's manual, Hand-Outs, lunch, coffee/tea on arrival, morning & afternoon of each day.

COURSE METHODOLOGY

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will make extensive use of real-life case examples in which he has been personally involved. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Case studies & Practical Exercises
- 10% Role Play

- 10% Videos, Software or Simulators (as applicable) & General Discussions