

METHODS OF OIL PRODUCTION FROM WATER FLOODED RESERVOIRS

RSE017

COURSE DESCRIPTION

This course covers the recovery improvement possibilities that present themselves at all stages in the reservoir life cycle. It thereby enables one to timely select the most beneficial method and set realistic expectations on production behavior changes and recovery improvement. The impacts of the selected method on personnel training, technology transfer, and facility modification are also covered. The material is presented in simple terms that would enable a participant to understand what works where, what fails when and why. It is light on theoretical equations, but it scrutinizes these to comprehend importance of significant parameters. It utilizes case studies from projects around the world their analyses and interpretations aid to the understanding of the material. Many illustrative problems, worked in the class by teams, are helpful in gaining a better grasp of the subject matter.

COURSE GOAL

To enhance participants' knowledge, skills, and abilities necessary to understand and apply methods of oil production from water flooded reservoirs.

COURSE OBJECTIVES

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

- Describe reservoir life cycle and recovery process
- Describe life under primary recovery phase; under secondary recovery phases; and under enhanced oil recovery phase:
- Use miscible methods; Chemical methods; and thermal methods
- Deal with technical challenge

WHO SHOULD ATTEND

- Petroleum, production and reservoir engineers.
- Process engineers and field operation staffs.
- Geologists and geophysicists.
- Exploitation engineers/technologists.
- Engineers who are new to the profession.
- Corrosion personnel and chemical engineers.
- Other individuals who need to know about waterflooding and waterflooding management.

COURSE DURATION

10 Working Days

COURSE OUTLINES

- 1. Reservoir Life Cycle and Recovery Process**
- 2. Life Under Primary Recovery Phase**
 - Recovery Targets and Ways to Improve.
- 3. Life Under Secondary Recovery Phases**
 - Immiscible Gas Injection.
 - Water Flooding.
 - Recovery Targets.
- 4. Life Under Enhanced Oil Recovery Phase**
 - Increasing Complexity.
 - Cost/Benefit Consideration.
- 5. Miscible Methods**
 - Selection Criteria.
 - Recovery Targets and why They are Seldom Met.
 - Design Considerations.
- 6. Chemical Methods**
 - Selection Criteria.
 - Recovery Targets and why They are Seldom Met.
 - Design Considerations.
- 7. Thermal Methods**
 - Selection Criteria.
 - Recovery Targets and why They are Seldom Met.
 - Design Considerations.
- 8. Technical Challenges**
 - Current and Future R & D Directions Facilities Modifications and Personnel Training.

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